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# Presidential Documents

Title 3—

The President

Proclamation 6162 of July 23, 1990

## To Modify Duty-Free Treatment Under the Generalized System of Preferences

By the President of the United States of America

A Proclamation

1. Pursuant to Title V of the Trade Act of 1974, as amended (the 1974 Act) (19 U.S.C. 2461 *et seq.*), the President may designate specified articles provided for in the Harmonized Tariff Schedule of the United States (HTS) as eligible for preferential tariff treatment under the Generalized System of Preferences (GSP) when imported from designated beneficiary developing countries.

2. Pursuant to sections 501, 503(a), 504(a), and 604 of the 1974 Act (19 U.S.C. 2461, 2463(a), 2464(a), and 2483), in order to subdivide and amend the nomenclature of existing provisions of the HTS for the purposes of the GSP, I have determined, after taking into account information and advice received under section 503(a), that the HTS should be modified to adjust the designation of eligible articles. In addition, pursuant to Title V of the 1974 Act, I have determined that it is appropriate to designate specified articles provided for in the HTS as eligible for preferential tariff treatment under the GSP when imported from any designated beneficiary developing country. I have also determined, pursuant to section 504(a) of the 1974 Act, that certain beneficiary countries should not receive preferential tariff treatment under the GSP with respect to certain articles designated as eligible for preferential treatment under the GSP.

3. Section 604 of the 1974 Act (19 U.S.C. 2483) authorizes the President to embody in the HTS the substance of the provisions of that Act, and of other acts affecting import treatment, and actions thereunder.

NOW, THEREFORE, I, GEORGE BUSH, President of the United States of America, acting under the authority vested in me by the Constitution and the laws of the United States, including but not limited to Title V and section 604 of the 1974 Act, do proclaim that:

(1) In order to provide benefits under the GSP to specified designated eligible articles when imported from any designated beneficiary developing country, the HTS is modified as provided in Annex I to this proclamation.

(2)(a) In order to provide benefits under the GSP to specified designated eligible articles when imported from any designated beneficiary developing country, the Rates of Duty 1-Special subcolumn for each of the HTS subheadings enumerated in Annex II(a) and (b) to this proclamation is modified as provided in such Annex II(a) and (b).

(b) In order to provide benefits under the GSP to specified designated eligible articles when imported from designated beneficiary developing countries and to provide that one or more countries should not be treated as beneficiary developing countries with respect to such eligible articles for purposes of the GSP, the Rates of Duty 1-Special subcolumn for each of the HTS subheadings enumerated in Annex II(c) to this proclamation is modified by inserting the symbol "A*" as provided in such Annex II(c).

(3) In order to provide that one or more countries should not be treated as beneficiary developing countries with respect to certain eligible articles for purposes of the GSP, general note 3(c)(ii)(D) of the HTS is modified as provided in Annex III to this proclamation.

(4) In order to provide for the continuation of previously proclaimed staged rate reductions on goods originating in the territory of Canada in the HTS subheadings in Annex I to this proclamation, effective with respect to goods originating in the territory of Canada which are entered, or withdrawn from warehouse for consumption, on or after the dates specified in Annex IV to this proclamation, the rate of duty in the HTS that is followed by the symbol "CA" in parentheses set forth in the Rates of Duty 1-Special subcolumn for each of the HTS subheadings enumerated in such Annex shall be deleted and the rate of duty provided in such Annex inserted in lieu thereof.

(5) In order to provide for the continuation of previously proclaimed staged rate reductions for products of Israel in the HTS subheadings in Annex I to this proclamation, effective with respect to products of Israel entered, or withdrawn from warehouse for consumption, on or after the dates specified in Annex V to this proclamation, the rate of duty in the HTS that is followed by the symbol "IL" in parentheses set forth in the Rates of Duty 1-Special subcolumn for each of the HTS subheadings enumerated in such Annex shall be deleted and the rate of duty provided in such Annex inserted in lieu thereof.

(6) Any provisions of previous proclamations and Executive orders inconsistent with the provisions of this proclamation are hereby superseded to the extent of such inconsistency.

(7) Except as provided for in paragraphs (4) and (5) of this proclamation, the amendments made by this proclamation shall be effective with respect to articles both: (i) imported on or after January 1, 1976, and (ii) entered, or withdrawn from warehouse for consumption, on or after August 1, 1990.

IN WITNESS WHEREOF, I have hereunto set my hand this twenty-third day of July, in the year of our Lord nineteen hundred and ninety, and of the Independence of the United States of America the two hundred and fifteenth.

George Bush

Billing code 3195-01-M

Annex I

Notes:

1. Bracketed matter is included to assist in the understanding of proclaimed modifications.

2. The following supersedes matter now in the Harmonized Tariff Schedule of the United States (HTS). The subheadings and superior descriptions are set forth in columnar format, and material in such columns is inserted in the columns of the HTS designated "Heading/Subheading", "Article Description", "Rates of Duty 1-General", "Rates of Duty 1-Special", and "Rates of Duty 2", respectively.

Effective as to articles entered, or withdrawn from warehouse for consumption, on or after August 1, 1990:

| | | | | |
|---|---|---|---|---|
| (a) Subheading 0304.10.20 is superseded by: | | | | |
| [Fish fillets...:] | | | | |
| [Fresh or chilled:] | | | | |
| "0304.10.10 | Cod, cusk, haddock, pollock and Atlantic ocean perch (rosefish)..... | 4.134¢/kg | Free (E,IL) 2.4¢/kg (CA) | 5.5¢/kg |
| 0304.10.30 | Hake (Urophycis spp.)..... | 4.134¢/kg | Free (A,E,IL) 2.4¢/kg (CA) | 5.5¢/kg" |
| (b) Subheading 0304.20.40 is superseded by: | | | | |
| [Fish fillets...:] | | | | |
| [Frozen fillets:] | | | | |
| [Other:] | | | | |
| "0304.20.30 | Cod, cusk, haddock, pollock and Atlantic ocean perch (rosefish)..... | 4.134¢/kg | Free (E,IL) 2.4¢/kg (CA) | 5.5¢/kg |
| 0304.20.50 | Hake (Urophycis spp.)..... | 4.134¢/kg | Free (A,E,IL) 2.4¢/kg (CA) | 5.5¢/kg" |
| (c) Subheadings 0710.22.10 and 0710.22.35 are superseded and the following inserted in numerical sequence: | | | | |
| [Vegetables...:] | | | | |
| [Leguminous vegetables...:] | | | | |
| [Beans...:] | | | | |
| [Not reduced in size:] | | | | |
| "Lima beans: | | | | |
| 0710.22.10 | If entered during the period from November 1 in any year to the following May 31, inclusive... | 5.2¢/kg | Free (A,E,IL) 4.1¢/kg (CA) | 7.7¢/kg |
| 0710.22.15 | Other..... | 7.7¢/kg | Free (A,E,IL) 6.1¢/kg (CA) | 7.7¢/kg |
| 0710.22.37 | Other..... | 7.7¢/kg | Free (E,IL) 6.1¢/kg (CA) | 7.7¢/kg" |
| (d) Subheadings 6406.10.75 and 6406.10.80 are superseded by: | | | | |
| [Parts of footwear...:] | | | | |
| [Uppers and parts...:] | | | | |
| [Other:] | | | | |
| [Other:] | | | | |
| "Of cotton: | | | | |
| 6406.10.72 | Uppers of which less than 50 percent of the external surface area (including any leather, rubber or plastics accessories or reinforcements such as mentioned in note 4(a) to this chapter) is textile materials..... | 11.2% | Free (A) 3.4% (IL) 8.9% (CA) | 62.9% |
| 6406.10.77 | Other..... | 11.2% | 3.4% (IL) 8.9% (CA) | 62.9% |
| Other: | | | | |
| 6406.10.85 | Uppers of which less than 50 percent of the external surface area (including any leather, rubber or plastics accessories or reinforcements such as mentioned in note 4(a) to this chapter) is textile materials..... | 9% | Free (A,E*) 2.7% (IL) 7.2% (CA) | 78.5% |

Annex I (con.)

| | | | | |
|---|---|---|---|---|
| 6406.10.90 | Other..... | 9% | Free (E*)<br>2.7% (IL)<br>7.2% (CA) | 78.5%" |

(c) Subheading 8714.91.10 is superseded by:

[Parts and accessories...:]
[Other:]
[Frames and forks...:]
"Frames:

| | | | | |
|---|---|---|---|---|
| 8714.91.20 | Valued over $600 each..... | 4.9% | Free (A,E,IL)<br>3.9% (CA) | 30% |
| 8714.91.30 | Other..... | 4.9% | Free (E,IL)<br>3.9% (CA) | 30%" |

Annex II

Modification in the HTS of an Article's Preferential Tariff Treatment under the GSP

Effective as to articles entered, or withdrawn from warehouse for consumption, on or after August 1, 1990:

(a) For the following HTS subheadings, in the Rates of Duty 1-Special subcolumn, insert in the parentheses following the "Free" rate the symbol "A," in alphabetical order:

| | | | | |
|---|---|---|---|---|
| 0306.14.20 | 1102.90.60 | 2008.30.37 | 3004.50.30 | 7004.90.30 |
| 0306.24.20 | 1104.22.00 | 2008.99.45 | 3005.10.50 | 7004.90.40 |
| 0709.10.00 | 1104.23.00 | 2008.99.80 | 3005.90.50 | 7318.12.00 |
| 0709.20.10 | 1212.92.00 | 2009.30.10 | 3302.10.20 | 7801.91.00 |
| 0711.20.15 | 1516.10.00 | 2009.30.20 | 3808.20.20 | 7901.20.00 |
| 0714.10.00 | 1604.13.40 | 2208.10.30 | 3921.12.19 | 8301.10.60 |
| 0810.10.20 | 1604.13.50 | 2208.10.60 | 4412.99.50 | 9502.10.40 |
| 0811.20.40 | 2001.90.25 | 2208.10.90 | 5702.99.20 | 9502.10.80 |
| 0811.90.50 | 2005.20.00 | 2936.28.00 | 7004.90.25 | |

(b) For HTS subheadings 5903.10.10 and 5903.90.10, in the Rates of Duty 1-Special subcolumn, insert "Free (A)".

(c) For the following HTS subheadings, in the Rates of Duty 1-Special subcolumn, insert in the parentheses following the "Free" rate the symbol "A*," in alphabetical order:

| | | | |
|---|---|---|---|
| 0804.50.60 | 1605.10.20 | 4412.12.20 | 4412.29.40 |
| 0807.20.00 | 4412.11.20 | 4412.12.50 | 4421.90.50 |
| 0810.10.40 | 4412.11.50 | 4412.29.30 | 4421.90.60 |

Annex III

Modifications to General Note 3(c)(ii) of the HTS

Effective as to articles entered, or withdrawn from warehouse for consumption, on or after August 1, 1990, general note 3(c)(ii)(D) is modified by adding in numerical sequence, the following HTS subheadings and countries set opposite them:

| | |
|---|---|
| 0804.50.60 | Mexico |
| 0807.20.00 | Mexico |
| 0810.10.40 | Mexico |
| 1605.10.20 | Malaysia; Thailand |
| 4412.11.20 | Indonesia |
| 4412.11.50 | Indonesia |
| 4412.12.20 | Brazil; Indonesia |
| 4412.12.50 | Brazil; Indonesia |
| 4412.29.30 | Brazil; Indonesia |
| 4412.29.40 | Brazil; Indonesia |
| 4421.90.50 | Brazil |
| 4421.90.60 | Brazil |

Annex IV

Effective with respect to goods originating in the territory of Canada which are entered, or withdrawn from warehouse for consumption, on or after the dates set forth in the following tabulation.

For each of the following HTS subheadings created by Annex I of this proclamation, on or after January 1 of each of the following years, the rate of duty in the Rates of Duty 1-Special subcolumn that is followed by the symbol "CA" in parentheses is deleted and the corresponding rate of duty inserted in lieu thereof:

| HTS Subheading | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---|---|---|---|---|---|---|---|---|
| 0304.10.10 | 1.6¢/kg | 0.8¢/kg | Free | Free | Free | Free | Free | Free |
| 0304.10.30 | 1.6¢/kg | 0.8¢/kg | Free | Free | Free | Free | Free | Free |
| 0304.20.30 | 1.6¢/kg | 0.8¢/kg | Free | Free | Free | Free | Free | Free |
| 0304.20.50 | 1.6¢/kg | 0.8¢/kg | Free | Free | Free | Free | Free | Free |
| 0710.22.15 | 5.3¢/kg | 4.6¢/kg | 3.8¢/kg | 3¢/kg | 2.3¢/kg | 1.5¢/kg | 0.7¢/kg | Free |
| 0710.22.37 | 5.3¢/kg | 4.6¢/kg | 3.8¢/kg | 3¢/kg | 2.3¢/kg | 1.5¢/kg | 0.7¢/kg | Free |
| 6406.10.72 | 7.8% | 6.7% | 5.6% | 4.4% | 3.3% | 2.2% | 1.1% | Free |
| 6406.10.77 | 7.8% | 6.7% | 5.6% | 4.4% | 3.3% | 2.2% | 1.1% | Free |
| 6406.10.85 | 6.3% | 5.4% | 4.5% | 3.6% | 2.7% | 1.8% | 0.9% | Free |
| 6406.10.90 | 6.3% | 5.4% | 4.5% | 3.6% | 2.7% | 1.8% | 0.9% | Free |
| 8714.91.20 | 3.4% | 2.9% | 2.4% | 1.9% | 1.4% | 0.9% | 0.4% | Free |
| 8714.91.30 | 3.4% | 2.9% | 2.4% | 1.9% | 1.4% | 0.9% | 0.4% | Free |

Annex V

Effective with respect to products of Israel which are entered, or withdrawn from warehouse for consumption, on or after the dates set forth in the following tabulation.

For each of the following HTS subheadings created by Annex I of this proclamation, the rate of duty in the Rates of Duty 1-Special subcolumn that is followed by the symbol "IL" in parentheses is deleted and the corresponding rate of duty inserted in lieu thereof on the date specified below.

| HTS Subheading | January 1, 1992 | January 1, 1995 |
|---|---|---|
| 6406.10.72 | 1.1% | Free |
| 6406.10.77 | 1.1% | Free |
| 6406.10.85 | 0.9% | Free |
| 6406.10.90 | 0.9% | Free |

[FR Doc. 90-17532
Filed 7-23-90; 4:48 pm]
Billing code 3195-01-C

# Rules and Regulations

Federal Register
Vol. 55, No. 143
Wednesday, July 25, 1990

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.
The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

## DEPARTMENT OF AGRICULTURE

### Agricultural Marketing Service

### 7 CFR Part 981

[AMS-FV-90-139FR]

## Almonds Grown in California; Change to the Administrative Rules and Regulations Concerning Crediting for Marketing Promotion and Paid Advertising Expenditures

**AGENCY:** Agricultural Marketing Service, USDA.

**ACTION:** Final rule.

**SUMMARY:** This final rule changes the administrative rules and regulations established under the Federal marketing order for California almonds. Currently, handlers may receive credit against a portion of the assessments levied under the marketing order for their own brand or generic advertising and promotion activities. This final rule provides handlers with an additional opportunity to receive such credit. This action is based on a unanimous recommendation of the Almond Board of California (Board), which is responsible for local administration of the order, and other available information.

**EFFECTIVE DATE:** July 25, 1990.

**FOR FURTHER INFORMATION CONTACT:** Allen Belden, Marketing Order Administration Branch, F&V, AMS, USDA, room 2525-S, P.O. Box 96456, Washington, DC 20090-6456; telephone: (202) 475-3923.

**SUPPLEMENTARY INFORMATION:** This final rule is issued under marketing agreement and Order No. 981 (7 CFR part 981), both as amended, hereinafter referred to as the "order," regulating the handling of almonds grown in California. The order is effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674), hereinafter referred to as the Act.

This rule has been reviewed by the U.S. Department of Agriculture in accordance with Departmental Regulation 1512-1 and the criteria contained in Executive Order 12291 and has been determined to be a "non-major" rule.

Pursuant to requirements set forth in the Regulatory Flexibility Act (RFA), the Administrator of the Agricultural Service (AMS) has considered the economic impact of this action on small entities.

The purpose of the RFA is to fit regulatory actions to the scale of business subject to such actions in order that small businesses will not be unduly or disproportionately burdened. Marketing orders issued pursuant to the Act, and rules issued thereunder, are unique in that they are brought about through group action of essentially small entities acting on their own behalf. Thus, both statutes have small entity orientation and compatibility.

There are approximately 95 handlers of almonds who are subject to regulation under the almond marketing order and approximately 7,000 producers in the regulated area. Small agricultural producers have been defined by the Small Business Administration (13 CFR 121.2) as those having annual receipts of less than $500,000, and small agricultural service firms are defined as those whose annual receipts are less than $3,500,000. The majority of handlers and producers of California almonds may be classified as small entities.

This action provides handlers of California almonds with an additional opportunity to receive credit against the creditable portion of their annual assessments under the order. This action will not impose any additional costs or expenses on handlers.

This action revises § 981.441 of subpart—Administrative Rules and Regulations and is based on a unanimous recommendation of the Board and other available information.

Section 981.441(c) of the order provides that the Board, with the approval of the Secretary, may allow handlers to receive credit for their direct marketing promotion expenditures, including paid advertising, against that portion of such handlers' assessment obligations which is designated for marketing promotion, including paid advertising. That section also provides that handlers shall not receive credit for allowable expenditures that would exceed the amount of such creditable assessments. Section 981.441(e) further provides that before crediting is undertaken and after recommendations are received from the Board the Secretary shall prescribe appropriate rules and regulations as are necessary to effectively administer the order provisions for crediting handler marketing promotion and paid advertising expenditures.

Section 981.441 prescribes rules and regulations to regulate crediting for handlers' marketing promotion expenditures, including paid advertising. This action revises § 981.441(c)(3)(iv) of the regulations, concerning crediting for almond product advertisement expenditures.

Almond products are defined in the order as nut mixtures containing shelled or unshelled almonds and edible preparations manufactured entirely or partially from raw shelled almonds. Section 981.441(c)(3)(iv) currently provides that, when almond products other than almond butter are advertised, the credit shall be 50 percent of the total allowable payment to the advertising medium or 50 percent of the handler's actual payment, whichever is less. In order for the advertisement to be eligible for credit, the advertised almond product must: (A) Not contain nuts other than almonds; (B) contain a minimum of 50 percent raw shelled almonds by weight; and (C) display the handler's brand.

There currently are provisions in the regulations governing the advertisement of 100 percent creditable forms of almonds in conjunction with non-almond commodities or products which complement almonds. The Board believes that a provision governing the advertising of almond products in conjunction with 100 percent creditable forms of almonds is also needed.

The Board believes that because a 100 percent creditable form of almonds would be included in these joint advertisements, the costs of the advertisements should be eligible to be credited at the 100 percent rate. Therefore, this action revises § 981.441(c)(3)(iv) to allow handlers credit for 100 percent of the total allowable payment to the advertising medium or 100 percent of the handler's actual payment, whichever is less, for

advertisements which include one or more almond products, such as sugar-coated almonds, in conjunction with one or more 100 percent creditable forms of almonds.

The information collection requirements that are contained in the section of the regulations that are amended by this final rule have been previously approved by the Office of Management of Budget (OMB) under the provisions of 44 U.S.C. chapter 35 and have been assigned OMB No. 0581–0071.

Based on the above, the Administrator of the AMS has determined that the issuance of this final rule will not have a significant economic impact on a substantial number of small entities.

Notice of this action was published in the **Federal Register** on May 23, 1990 [55 FR 21203]. Written comments from interested persons were invited through June 22, 1990. No comments were received.

After consideration of all relevant matter presented, including the Board's recommendation and other available information, it is found that the changes hereinafter set forth will tend to effectuate the declared policy of the Act.

Pursuant to 5 U.S.C. 553, it is further found that good cause exists for not postponing the effective date of this action until 30 days after publication in the **Federal Register** in that: (1) The regulation provides handlers with additional flexibility in crediting advertising and promotion expenditures, and handlers should have the opportunity to utilize this increased flexibility as soon as possible; (2) handlers are aware of this action and need no additional time to comply; and (3) no useful purpose would be served by delaying the effective date of this action.

**List of Subjects in 7 CFR Part 981**

Almonds, Marketing agreements, Nuts, Reporting and recordkeeping requirements.

For the reasons set forth in the preamble, 7 CFR part 981 is amended as follows:

Note: This section will be published in the annual Code of Federal Regulations.

## PART 981—ALMONDS GROWN IN CALIFORNIA

1. The authority citation for 7 CFR part 981 continues to read as follows:

Authority: Secs. 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674.

**Subpart—Administrative Rules and Regulations**

2. Section 981.441 is amended by revising paragraph (c)(3)(iv) to read as follows:

**§ 981.441 Crediting for marketing promotion including paid advertising.**

* * * * *

(c) * * *

(3) * * *

(iv) When almond products, other than almond butter, are advertised, the credit shall be 50 percent of the total allowable payment to the advertising medium or 50 percent of the handler's payment thereof, whichever is less: *Provided*, That (A) the almond product does not contain nuts other than almonds, (B) the almond product contains at least 50 percent raw shelled almonds by weight, and (C) the almond product displays the handler's brand and: *Provided further*, That, if the product is advertised with forms of almonds for which 100 percent credit is allowed, the advertisement shall receive 100 percent credit provided it meets the criteria of paragraph (c)(3)(iv) (A), (B), and (C) of this section. With respect to almond butter advertising, the credit shall be 100 percent of the total allowable payment to the advertising medium or 100 percent of the handler's payment thereof, whichever is less. For the handler to receive credit, the almond butter must meet the specifications contained in § 981.466, and the handler's brand must be displayed.

* * * * *

Dated: July 20, 1990.

**Robert C. Keeney,**

*Deputy Director, Fruit and Vegetable Division.*

[FR Doc. 90–17370 Filed 7–24–90; 8:45 am]

BILLING CODE 3410–02–M

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**7 CFR Part 985**

**[FV–89–107 FR]**

## Spearmint Oil Produced in the Far West; Establishment of Salable Quantities and Allotment Percentages for "Class 1" Scotch and "Class 3" Native Spearmint Oils for the 1990–91 Marketing Year.

**AGENCY:** Agricultural Marketing Service, USDA.

**ACTION:** Final rule.

**SUMMARY:** The Agricultural Marketing Service is adopting without modification as a final rule the provisions of an interim final rule which increased the quantity of "Class 1" Scotch (Scotch) spearmint oil produced in the Far West that may be purchased from or handled for producers by handlers during the 1990–91 marketing year, which began on June 1, 1990. In addition, the provisions of an interim final rule, which increased the quantity of "Class 3" Native (Native) spearmint oil produced in the Far West that may be purchased from or handled for producers by handlers during the 1990–91 marketing year, are also adopted without modification. These actions are taken under the marketing order for spearmint oil produced in the Far West in order to avoid extreme fluctuations in supplies and prices and thus help to maintain stability in the spearmint oil market. These actions were unanimously recommended by the Spearmint Oil Administrative Committee (Committee), which is responsible for local administration of the order.

**EFFECTIVE DATES:** July 25, 1990.

**FOR FURTHER INFORMATION CONTACT:** Jacquelyn R. Schlatter, Marketing Specialist, Marketing Order Administration Branch, Fruit and Vegetable Division, AMS, USDA, room 2525–S, P.O. Box 96456, Washington, DC 20090–6456; telephone: (202) 447–8139.

**SUPPLEMENTARY INFORMATION:** This final rule is issued under Marketing Order No. 985, as amended (7 CFR part 985), regulating the handling of spearmint oil produced in the Far West. The order is effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674), hereinafter referred to as the Act.

This final rule has been reviewed by the U.S. Department of Agriculture (Department) in accordance with Departmental regulation 1512–1 and the criteria contained in the Executive Order 12291 and has been determined to be a "non-major" rule.

Pursuant to requirements set forth in the Regulatory Flexibility Act (RFA), the Administrator of the Agricultural Marketing Service (AMS) has considered the economic impact of this action on small entities.

The purpose of the RFA is to fit regulatory actions to the scale of business subject to such actions in order that small businesses will not be unduly or disproportionately burdened. Marketing orders issued pursuant to the Act, and rules issued thereunder, are unique in that they are brought about through group action of essentially small entities acting on their own behalf. Thus, both statutes have small entity orientation and compatibility.

The Far West spearmint oil industry is characterized by primarily small producers whose farming operations

generally involve more than one commodity and whose income from farming operations is not exclusively dependent on the production of spearmint oil. The production of spearmint oil is concentrated in the Far West, primarily Washington, Idaho, and Oregon (part of the area covered under the marketing order). Spearmint oil is also produced in the Midwest. The production area covered by the marketing order normally accounts for more than 75 percent of U.S. production of spearmint oil annually.

The Committee reports that there are approximately 9 handlers and 253 producers of spearmint oil under the marketing order for spearmint oil produced in the Far West. Of the 253 producers, 160 producers hold Scotch oil allotment base, and 136 producers hold Native oil allotment base. As of June 1, 1989, producers' allotment bases ranged from 667 to 181,902 pounds for Scotch oil and from 290 to 124,346 pounds for Native oil. The average total allotment base held is 10,413 pounds and 13,539 pounds for Scotch and Native oils, respectively.

Small agricultural producers have been defined by the Small Business Administration (13 CFR 121.1) as those having annual receipts of less than $500.000, and small agricultural service firms are defined as those whose annual receipts are less than $3,500,000. The majority of Far West spearmint oil producers and handlers may be classified as small entities.

The initial salable quantities and allotment percentages for Scotch and Native spearmint oils for the 1990–91 marketing year were unanimously recommended by the Committee at its September 20, 1989, meeting. The salable quantity is the total quantity of each class of oil which handlers may purchase from or handle on behalf of producers during a marketing year. Each producer is allotted a share of the salable quantity by applying the allotment percentage to the producer's allotment base for the applicable class of spearmint oil. A proposed rule incorporating the Committee's recommendations was published in the November 14, 1989, issue of the Federal Register (54 FR 47366). Written comments were invited from interested persons until December 14, 1989. One comment was received in the form of a recommendation from the Committee.

This recommendation was submitted after a Committee meeting on November 28, 1989. At that meeting, the Committee unanimously recommended an increase in the salable quantity and allotment percentage for Scotch spearmint oil for the 1990–91 marketing year. The Committee indicated that continued strong contracting activity by buyers warranted such an increase. Thus, the Committee recommended that the allotment percentage for Scotch oil be increased from 40 to 52 percent and the salable quantity from 678,800 to 882,440 pounds.

An additional recommendation was submitted to the Department after a teleconference meeting on January 8, 1990. During that meeting, the Committee unanimously recommended an increase in the salable quantity and allotment percentage for Native spearmint oil for the 1990–91 marketing year. The Committee indicated that unusually brisk marketing activity of Native spearmint oil warranted such an increase. Thus, the Committee recommended that the allotment percentage for Native spearmint oil be increased from 43 to 50 percent and the salable quantity from 806,498 to 937,789 pounds.

The Committee therefore unanimously requested the Secretary to revise its September 20 recommendations for Scotch and Native spearmint oils to reflect these increases. Accordingly, based upon analysis of available information, the Committee's recommendations were adopted in an interim final rule published in the March 9, 1990, issue of the Federal Register (55 FR 8905). Thus, that interim final rule established salable quantities of 882,440 pounds and 937,789 pounds, respectively, for Scotch and Native spearmint oils produced in the Far West and allotment percentages of 52 percent and 50 percent, respectively, for Scotch and Native spearmint oils produced in the Far West.

Written comments were invited from interested persons until April 9, 1990. One comment was received in the form of a recommendation from the Committee.

This recommendation was submitted after a Committee meeting on March 7, 1990. At that meeting, the Committee unanimously recommended an increase in the salable quantity and allotment percentage for Native spearmint oil for the 1990–91 marketing year. Since the Committee's January 8, 1990, meeting, marketing opportunities for Native spearmint oil have increased. The Committee reported that the 1989 crop of Chinese spearmint oil experienced considerable production problems resulting in a substantial reduction in the amount of spearmint oil available on world markets. In addition, markets for spearmint and other mint oils are developing or increasing in a number of "third world" countries. The Committee therefore unanimously requested the Secretary to revise its January 8, 1990, recommendation for Native spearmint oil to reflect this increase in demand. Accordingly, based upon analysis of available information, this Committee recommendation was adopted in an interim final rule published in the May 22, 1990, issue of the Federal Register (55 FR 21006).

That interim final rule modified the March 9, 1990, interim final rule by increasing the salable quantity of Native spearmint oil from 937,789 to 1,125,347 pounds and the allotment percentage from 50 to 60 percent for the 1990–91 marketing year. Comments were solicited from interested persons through June 22, 1990. No comments were received. Thus, the allotment percentage and salable quantity for Native spearmint oil as established by that interim final rule are adopted without change. In addition, the interim final rule published in the March 9, 1990, issue of the Federal Register (55 FR 8905) solicited comments through April 9, 1990. No comments were received concerning the allotment percentage and salable quantity for Scotch spearmint oil. Thus, the allotment percentage and salable quantity for Scotch spearmint oil as established by that interim final rule are adopted without change.

Based on available information, the Administrator of the AMS has determined that the issuance of this final rule will not have a significant economic impact on a substantial number of small entities.

After consideration of the information and recommendations submitted by the Committee and other available information, it is found that this final rule will tend to effectuate the declared policy of the Act.

Pursuant to 5 U.S.C. 553, it is further found that good cause exists for not postponing the effective date of this action until 30 days after publication in the Federal Register. This action adopts as a final rule, without change, the provisions of two interim final rules. No comments were received concerning the establishment of a salable quantity and allotment percentage for Scotch spearmint oil in the March 9, 1990, interim final rule nor the establishment of a salable quantity and allotment percentage for Native spearmint oil in the May 22, 1990, interim final rule. Thus, no practical purpose would be served by postponing the effective date of this action.

**List of Subjects in 7 CFR Part 985**

Marketing agreements, Oils and fats, Reporting and recordkeeping requirements, and Spearmint oil.

For the reasons set forth in the preamble, 7 CFR part 985 is amended as follows:

## PART 985—SPEARMINT OIL PRODUCED IN THE FAR WEST

1. The authority citation for 7 CFR part 985 continues to read as follows:

Authority: Sections 1–19, 48 Stat. 31, as amended; 7 U.S.C. 601–674.

Note: This section will not appear in the Code of Federal Regulations.

### § 985.210 [Confirmed]

2. Accordingly, the interim final rule adding § 985.210, which was published at 55 FR 8905 on March 9, 1990, and the interim final rule revising § 985.210(b), which was published at 55 FR 21006 on May 22, 1990, are adopted as a final rule without change.

Dated: July 20, 1990.

Robert C. Keeney,

*Deputy Director, Fruit and Vegetable Division.*

[FR Doc. 90–17371 Filed 7–24–90; 8:45 am]

BILLING CODE 3410–02–M

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## Farmers Home Administration

## 7 CFR Part 1956

## Debt Settlement—Community and Business Programs

**AGENCY:** Farmers Home Administration, USDA.

**ACTION:** Final rule.

**SUMMARY:** The Farmers Home Administration (FmHA) adopts its interim rule published November 15, 1989 (54 FR 47509), as a final rule without change. This action complies with section 303, title III, of the "Disaster Assistance Act of 1989" (Pub. L. 101–82), and will allow Indian tribes and tribal corporations to make application for the reduction of the unpaid principal balances on loans to the current fair market value of the land purchased with the proceeds of FmHA loans. The intended effect of this action is to finalize the interim rule that was incorporated into existing FmHA regulations.

**EFFECTIVE DATE:** July 25, 1990.

**FOR FURTHER INFORMATION CONTACT:** Harry B. Puffenberger, Senior Loan Officer, Program Management Branch, Community Facilities Division, Farmers Home Administration, U.S. Department of Agriculture, Room 6314, South Agriculture Building, Washington, DC 20250; telephone (202) 382–1504.

**SUPPLEMENTARY INFORMATION:**

### Classification

This action has been reviewed under USDA procedures established in Departmental Regulation 1512–1, which implements Executive Order 12291, and has been determined to be nonmajor. The proposed action is not likely to result in any of the following: (a) An annual effect on the economy of $100 million or more, (b) a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions, or (c) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

### Environmental Impact

This document has been reviewed in accordance with 7 CFR part 1940, subpart G, "Environmental Program." FmHA has determined that this action does not constitute a major Federal action significantly affecting the quality of the human environment, and in accordance with the National Environmental Policy Act of 1969, Public Law 91–190, an Environmental Impact Statement is not required.

### Intergovernmental Review

This action affects the following FmHA program as listed in the Catalog of Federal Domestic Assistance:

No. 10.421, Indian Tribes and Tribal Corporation Loans.

Indian tribes and tribal corporations are exempt from the provisions of Executive Order 12372 which requires intergovernmental consultation with State and local officials.

### Discussion of Comments

An interim rule was published in the **Federal Register** (54 FR 47509) on November 15, 1989, and invited comments for 30 days ending December 15, 1989. Two comments were received.

One comment fully supported the legislation, stating that it would be a positive factor from both a financial and physical standpoint, for tribal Governments.

The second comment stated that the definition for Independent Qualified Fee Appraiser, did not, by its explicit terms, include appraisals performed by the Department of the Interior, Bureau of Indian Affairs (BIA). Public Law 101–82 required the use of Independent Qualified Fee Appraisers, as selected by mutual agreement between FmHA and the borrower. The regulation's definition of Independent Qualified Fee Appraiser does not expressly exclude BIA appraisals. Given the BIA's status as advisor and trust for the tribes, however, we feel that appraisals performed by local BIA personnel generally would not be considered independent, and would not be agreed to by FmHA. Therefore, no change was made to the definition.

### List of Subjects in 7 CFR Part 1956

Accounting, Loan programs—Agriculture, Rural areas.

Therefore, the Interim rule, as published in the **Federal Register** (54 FR 47509) on November 15, 1989, is adopted as a final rule without change.

Dated: May 25, 1990.

La Verne Ausman,

*Administrator, Farmers Home Administration.*

[FR Doc. 90–17383 Filed 7–24–90; 8:45 am]

BILLING CODE 3410–07–M

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## 7 CFR Part 1956

## Debt Settlement; Community and Business Programs

**AGENCY:** Farmers Home Administration, USDA.

**ACTION:** Final rule.

**SUMMARY:** The Farmers Home Administration amends the Agency's policies and procedures governing the debt settlement of loans serviced by the Community Programs and Business and Industry Division. The rule is necessary to comply with section 1309 of the Food Security Act of 1985, Public Law (Pub. L.) 99–198. This action is needed to clarify debt settlement regulations and to include the process of settlement of debts where FmHA does not have the independent statutory authority to settle debts, and must process debt settlement in accordance with the Federal Claims Collection Act Joint Standards. The effect of this action is to make FmHA regulations on debt settlement coherent and more responsive to the needs of the agency and the public.

**EFFECTIVE DATE:** July 25, 1990.

**FOR FURTHER INFORMATION CONTACT:** Blanche G. Hamilton, Loan Officer, Loan Servicing Branch, Business and Industry Division, Farmers Home Administration, U.S. Department of Agriculture, room 6343, South Agriculture Building, Washington, DC 20250; telephone (202) 475–3806.

**SUPPLEMENTARY INFORMATION:**

**Classification**

This action has been reviewed under USDA procedures established in Departmental Regulation 1512–1, which implements Executive Order 12291, and has been determined to be nonmajor. The action is not likely to result in any of the following: (a) An annual effect on the economy of $100 million or more, (b) a major increase in costs or prices for consumers, individual industries, Federal, State or local government agencies, or geographic regions; or (c) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

**Environmental Impact**

This document has been reviewed in accordance with 7 CFR part 1940, subpart G, "Environmental Program." FmHA has determined that this action does not constitute a major Federal action significantly affecting the quality of the human environment, and, in accordance with the National Environmental Policy Act of 1969, Public Law 91–190; an Environmental Impact Statement is not required.

**Intergovernmental Review**

This action affects the following FmHA programs listed in the Catalog of Federal Domestic Assistance:

Sec.
10.414 Resource, conservation and development loans.
10.418 Water and waste disposal systems for rural Communities.
10.419 Watershed and flood prevention loans.
10.421 Indian tribes and tribal corporations.
10.422 Business and industry loans.
10.423 Community facility loans.
10.424 Industrial development grants
10.434 Nonprofit national corporation loan and grant
10.438 Intermediary relending program loans

These programs are subject to the provisions of Executive Order 12372 which requires intergovernmental consultation with State and local officials, except Indian Tribes and Tribal Corporations.

**Regulatory Flexibility Act**

FmHA has determined that this action will not have a significant economic impact on a substantial number of small entities, becaue the action will not affect a significant number of small entities as defined by the Regulatory Flexibility Act (5 U.S.C. 601).

**Background**

Debt settlement for Community and Business Programs is governed by the Consolidated Farm and Rural Development Act (CONACT) (7 U.S.C. 1921–1996). Additionally, FmHA, C&BP administers numerous programs which are not governed by the CONACT and, therefore, does not have the independent statutory authority to settle debt and must process debt in accordance with the Federal Claims Collection Standards, 4 CFR parts 101 through 105. These debts include Economic Opportunity Cooperative Loans, claims against third party converters, non program loans, Industrial Development Grants, Rural Development Loan Fund Loans, Intermediary Relending Programs Loans, Nonprofit National Corporation Loan and Grant Program debts, and 601 Energy Impact Assistance Grants. In general, FmHA does not have debt settlement authority for Indian Land Acquisition loans in the same manner as its program loans but does have the authority pursuant to Public Law 101–82 (August 14, 1989) to reduce the unpaid balance of these loans under certain circumstances. Regulations implementing this authority were promulgated on November 15, 1989, in **Federal Register** 54 FR 47509.

This action will amend the present regulations to clarify which programs will settle debt in accordance with the Federal Claims Collection Standards and the procedure to be used to comply with the Standards. The changes will result in more efficient service to the public, while continuing protection of the Government's interest.

**Comments**

A proposed rule was published in the **Federal Register** (54 FR 33917) on August 17, 1989, and invited comments for 30 days ending September 18, 1989. No response were received. As a result, FmHA is adopting that proposed rule without change.

**List of Subjects in 7 CFR Part 1956**

Accounting, Loan programs—Agriculture, Rural areas.

Accordingly, FmHA proposes to amend chapter XVIII, title 7, Code of Federal Regulations, to read as follows:

## PART 1956—DEBT SETTLEMENT

1. The authority citation for part 1956 continues to read as follows:

**Authority:** 7 U.S.C. 1989; 5 U.S.C. 301; 31 U.S.C. 3711, 7 CFR 2.23; 7 CFR 2.70.

### Subpart C—Debt Settlement—Community and Business Programs

2. Section 1956.101 is revised to read as follows:

**§ 1956.101 Purpose.**

This subpart delegates authority and prescribes policies and procedures for debt settlement of Water and Waste Disposal System loans; Community Facility Loans: Association Recreation loans; Watershed loans and advances; Resource, Conservation and Development loans; Rural Renewal loans; and insured Business and Industry loans; Irrigation and Drainage loans; and Shift-in-land-use loans. Settlement of Economic Opportunity Cooperative loans, Claims Against Third Party Converters, Nonprogram loans, Industrial Development Grants, Rural Development Loan Fund loans, Intermediary Relending Program loans, Nonprofit National Corporations Loans and Grants, Indian Tribal Land Acquisition Loans (except and provided in § 1956.137), and 601 Energy Impact Assistance Grants, is not authorized under independent statutory authority and settlement under these programs is handled pursuant to the Federal Claims Collection Joint Standards, 4 CFR parts 101–105 as described in § 1956.147 of this subpart.

3. Section 1956.147 is added to read as follows:

**§ 1956.147 Debt Settlement under the Federal Claims Collection Act.**

The U.S. Department of Justice (DOJ) and the General Accounting Office are charged with the responsibility for implementing the Federal Claims Collection Act and have promulgated the Federal Claims Collection Act Joint Standards (FCCAJS) (4 CFR parts 101–105) to inform Government Agencies on how to settle debts and claims which the Agency does not have independent statutory authority to settle. With the exception of loans and claims with outstanding balances of $20,000 or less, exclusive of interest, penalties, and administrative costs, settlements must be submitted to and approved by the United States Attorney or the DOJ. Debt Settlement of Economic Opportunity Cooperative loans, Claims Against Third Party Converters, Nonprogram loans, Industrial Development Grants, Rural Development Loan Fund loans, Intermediary Relending Program loans, Nonprofit National Corporations Loans and Grants, Indian Tribal Land Acquisition Loans (to the extent settlement cannot be effected pursuant to § 1956.137), and 601 Energy Impact

Assistance Grants are programs that must be settled under the FCCAJS.

(a) Debt settlement of the subject loans and claims falls in the following categories:

(1) Settlement of loans and claims may be approved by the Administrator when the outstanding balance of the indebtedness involved in the settlement in $20,000 or less, exclusive of interest, penalties, and administrative costs. These loans and claims will be submitted to the National Office on Form FmHA 1956–1, "Application for Settlement of Indebtedness," for debt settlement. Subsequent to approval, Form FmHA 1956–1 will be distributed in accordance with the Forms Manual Insert (FMI).

(2) Loans and claims with an outstanding balance of $200,000 or less inclusive of interest, penalties, and administrative costs, but with an outstanding balance greater than $20,000, exclusive of interest, penalties, and administrative costs, after approval by the State Director will be referred to your Regional Office of the General Counsel (OGC) for referral to the United States Attorney in whose judicial district the debtor can be found. The form to be used is the Claims Collection Litigation Report (CCLR). This form should be available through the U.S. Attorney. A memorandum from the State Director should be attached to the CCLR recommending acceptance of the debt settlement. If the State Director after reviewing the CCLR does not recommend acceptance, the State Director has the authority to reject the debt settlement.

(3) Loans and claims with an outstanding balance over $200,000, inclusive of interest, penalties, and administrative costs, will be referred to the Administrator and will include the following:

(i) The case file(s).

(ii) A completed CCLR.

(iii) Copies of the notes, security agreements, and mortgages.

(iv) A current appraisal of any security owned by the borrower.

(v) A narrative which will include:

(A) Recommendation for the acceptance of the debt settlement.

(B) The type of loan involved, a short history of the loan, and why the borrower failed.

(C) Steps taken to collect the loan(s).

(D) An analysis of the debtor's future repayment ability. This should discuss if the debtor has any other assets or has concealed or improperly transferred assets, if known. If the debtor is an individual, this should include consideration of the debtor's present and potential income and inheritance prospects.

(E) Why acceptance of the debt settlement offer is in the best interest of the Government.

(4) If the Administrator concurs with the recommendation for the debt settlement, it will be referred by the FmHA National Office to OGC for referral to the Commercial Litigation Branch, Civil Division, U.S. Department of Justice, Washington, DC 20530.

(b) When a debtor has a Community Programs or Business and Industry loans(s) and defined in this subpart, these loan(s) will be debt settled under the authority of the Consolidated Farm and Rural Development Act. In such cases, the subject loans and claims should be listed under part II(B) on Form FmHA 1956–1, as other debts owed FmHA. Normally, all the security for the subject loans and claims should be disposed of prior to the submission for debt settlement.

(c) It is not necessary to obtain approval of the United States Attorney or the DOJ (as the case may be) in cases where FmHA decides not to settle a loan or claim.

Dated: April 13, 1990.

**La Verne Ausman,**

*Administrator, Farmers Home Administration.*

[FR Doc. 90–17291 Filed 7–24–90; 8:45 am]

BILLING CODE 3410–07–M

## NATIONAL CREDIT UNION ADMINISTRATION

### 12 CFR Part 701

### Retirement Benefits for Employees of Federal Credit Unions

**AGENCY:** National Credit Union Administration ("NCUA").

**ACTION:** Confirmation of existing regulation.

**SUMMARY:** Section 701.19 of the NCUA Regulations (12 CFR 701.19) authorizes federal credit unions (FCUs) to provide retirement benefits to employees and compensated officers. In November 1989 the NCUA Board requested comment on whether modifications should be made to this Section. After reviewing the comments, the Board has determined that no changes are necessary.

**EFFECTIVE DATE:** This confirmation of the existing regulation is effective July 25, 1990.

**ADDRESSES:** National Credit Union Administration, 1776 G Street, Washington, DC 20456.

**FOR FURTHER INFORMATION CONTACT:** Michael J. McKenna, Office of General Counsel, at above address or telephone: 202/682–9630.

**SUPPLEMENTARY INFORMATION:** Section 701.19 of the NCUA Regulations (12 CFR 701.19) states that federal credit unions (FCUs) are authorized to provide retirement benefits to employees and compensated officers. Since FCUs do not have general trust powers, the rule sets forth those limited situations where an FCU can occupy the position of trustee or custodian with respect to employee and compensated officers retirement plans. Pursuant to NCUA's regulatory review program, a request for comments on whether any amendments should be made was published in the **Federal Register** on November 21, 1989 (*see* 54 FR 48111) with a ninety-day comment period.

#### Comments

Nine comments were received. Four comments were received from federal credit unions, three from state credit union leagues, and two from national credit union trade associations.

#### Discussion

Most of the commenters agreed that no modifications to § 701.19 are necessary. The general belief of the commenters is that credit unions have not experienced problems with the application of § 701.19. Therefore, these commenters recommended no changes.

Two commenters recommended changes. One commenter suggested that § 701.19 be amended to allow FCUs to offer 401(k) plans. As stated in the preamble to the request for comments, the Tax Reform Act of 1986 eliminated the ability of FCUs to offer 401(k) plans. Pursuant to the Act, credit unions may only offer deferred compensation plans under section 457 of the Internal Revenue Code. Congress, not NCUA, controls whether FCUs may offer 401(k) plans. Another commenter objected to having to use section 457 because it can only be used for a select group of highly paid employees. The commenter suggested clarifying § 701.19 to provide a deferred compensation plan that can be offered to all FCU employees. Again, it is Congress, and not NCUA, which authorized the type of deferred compensation plan an FCU may offer.

The public comments received reaffirm the position of the NCUA Board that no modifications to § 701.19 are necessary at this time. Accordingly, no further action is necessary.

By the National Credit Union Administration Board on July 17, 1990.

**Hattie M. Ulan,**

*Acting Secretary of the Board.*

[FR Doc. 90–17239 Filed 7–24–90; 8:45 am]

BILLING CODE 7535–01–M

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**12 CFR Parts 701, 722 and 741**

## Appraisals and Requirements for Insurance

**AGENCY:** National Credit Union Administration (NCUA).

**ACTION:** Final rule.

**SUMMARY:** This final regulation implements title XI of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 ("FIRREA"). It is intended to protect federal financial and public policy interests in real estate-related financial transactions requiring the services of an appraiser. Title XI of FIRREA and this final regulation provide the affected federal entities with added assurance that real estate appraisals used in connection with federal responsibilities and requirements are performed in accordance with uniform standards by individuals whose competency has been demonstrated and whose professional conduct will be subject to effective supervision. Toward this end, the final regulation identifies which transactions require an appraiser, sets forth minimum standards for performing appraisals, and distinguishes those appraisals requiring the services of a state-certified appraiser from those requiring a state-licensed appraiser. This regulation is the result of a working group made up of representatives from the Federal Reserve Board, the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the Office of Thrift Supervision, the Resolution Trust Corporation, and the NCUA. The other agencies are issuing similar regulations.

**EFFECTIVE DATE:** August 9, 1990.

**ADDRESSES:** National Credit Union Administration, 1776 G Street NW., Washington, DC 20456.

**FOR FURTHER INFORMATION CONTACT:** Michael J. McKenna, Office of General Counsel, at the above address or telephone: (202) 682–9630, or Timothy P. Hornbrook, Office of Examination and Insurance, at the above address or telephone: (202) 682–9640.

**SUPPLEMENTARY INFORMATION:**

### A. Background

Title XI of FIRREA is designed to insure more reliable appraisals rendered in connection with federally-related transactions. In addition, title XI requires the NCUA Board to identify those circumstances that require a state-certified appraiser and those that require a state-certified or -licensed appraiser. In response to this legislative mandate, the NCUA Board has adopted this regulation which is designed to address problems perceived by Congress and the Board.

Section 1121 of FIRREA defines a "federally related transaction" as a real estate-related financial transaction which, *inter alia*, requires the services of an appraiser. The NCUA Board has required state-certified or -licensed appraisers to be used for all real estate-related financial transactions except those transactions where (i) A lien is placed on real property solely through an abundance of caution; (ii) the transaction value (as defined in the proposed regulation) is less than or equal to $50,000; (iii) the transaction involves a lease that is not the economic equivalent of a purchase or sale; (iv) there is a renewal of an extension of credit under certain circumstances; or (v) the credit union is acquiring interests in loans that complied with this regulation when originated. The NCUA Board, acting pursuant to section 1112 of FIRREA has identified which categories of federally related transactions will require a state-certified appraiser and which will require a state-licensed appraiser. State requirements to become a certified appraiser will be more demanding than those required for a state-licensed appraiser.

In addition, the NCUA Board has adopted standards, pursuant to section 1110 of FIRREA, for the performance of appraisals in connection with federally related transactions within NCUA's jurisdiction. These standards require that all such appraisals be written and that they conform to the Uniform Standards of Professional Appraisal Practices ("USPAP") promulgated by the Appraisal Standards Board of the Appraisal Foundation (established November 30, 1987, as a not-for-profit corporation under the laws of Illinois) and the additional standards set forth in this regulation.

This regulation is intended to supplement the appraisal guidelines previously issued in Letter to Credit Unions Number 112 (October 20, 1989). These guidelines will remain in effect.

The NCUA Board has adopted this regulation to comply with FIRREA and to improve the safety and soundness of all federally-insured credit unions. The soundness of real estate loans and investments made by federally insured credit unions depends upon the adequacy of the underwriting and analysis used to support these transactions. A real estate appraisal is one of several essential components of the lending process. Accordingly, through the integration of existing guidance on real estate appraisals, with the additional requirements imposed by title XI of FIRREA, this regulation provides federally insured credit unions with a reasonable degree of assurance that real estate appraisals used in connection with federally related transactions will be reliable.

The Appraisal Standards Board of the Appraisal Foundation has adopted standards to be used with this regulation. These standards have been amended since the Board first solicited comment on its Appraisal Standards regulation. The standards will be published in the **Federal Register** in conjunction with the other financial regulators before the effective date of this regulation. Public comment on the standards will be solicited at that time.

### B. Effective Dates

Appraisals performed in connection with federally related transactions are to comply with the standards set forth in this regulation by August 9, 1990. State-certified or -licensed appraisers, as appropriate, will be required for federally related transactions as of July 1, 1991, unless this deadline is extended by the Appraisal Subcommittee for a given state pursuant to provisions of title XI. Appraisals for real estate-related financial transactions entered into before August 9, 1990, will not require an appraisal to be performed in accordance with this regulation. A transaction will be deemed entered into and a loan will be deemed originated if there is a binding commitment to perform before the effective date of this regulation.

### C. Comments

On February 16, 1990 (55 FR 5614), NCUA published for comment proposed rules to implement Title XI of FIRREA. NCUA received one hundred and seventeen comments from interested individuals and organizations. Sixty-four of the commenters were FCUs and fourteen were state-chartered credit unions. Seven comments were from state credit union leagues. Eight comments were from appraisal trade associations and seven were received from real estate trade associations. Three comments were from federal agencies, three commenters were law firms, and two commenters were individuals. Two comments were received from national credit union trade associations. Comments were also received from a state credit union regulator, a mortgage bankers' trade association, a savings and loan trade

association, an accountants' trade association, and an appraisal firm. Most of the responses were favorable, although a number of commenters recommended one or more changes to the regulation. The principal issues raised by the comments were discussed in the section below. In addition, the section-by-section analysis addresses many of the concerns raised by the comments.

**D. Discussion**

*Section 722.2 Appraisal Definitions*

Fourteen commenters objected to the definition of a "complex 1-to-4 family residential property appraisal." In the proposed rule, it is defined as "an appraisal of a property which is atypical for the marketplace." The definition then goes on to give examples of what may be considered atypical factors. Most of these commenters found this definition to be ambiguous, unworkable and subject to widely varying interpretations. In addition, these commenters believe that if this definition was adopted, credit unions would be forced to complete a preappraisal property analysis at the time the mortgage loan application is taken in order to determine if the property should be appraised by a state-licensed or state-certified appraiser. Some commenters suggested that the credit union should be able to presume that a property is noncomplex if the transaction value is below a certain dollar limit.

In response to these comments, the NCUA Board has amended the definition in the final rule to clarify that a residential real estate appraisal is considered complex when the property to be appraised, the form of ownership, or market conditions are atypical, and not solely because of the presence or absence of the particular factors cited in the proposed rule. The illustrative list of atypical factors which appeared in the proposed rule has been moved to the section-by-section analysis of the preamble. As discussed more fully below, the final rule also adopts a presumption that residential real estate appraisals are noncomplex and permits licensed appraisers to perform complex 1-to-4 family residential property appraisals if the transaction value is less than $250,000.

One commenter requested that the definition of state-certified appraiser contain language concerning the requirement that a state-certified appraiser pass a state examination that is consistent with and equivalent to the Uniform State Certification Examination issued or endorsed by the Appraiser Qualification Board of the Appraisal Foundation. Although similar language was contained in NCUA's preamble to the proposed rule, for the sake of clarity and uniformity, the suggestion was incorporated into the final rule.

One commenter had some serious concerns about a possible disruption in the mortgage market due to some of the definitional language contained in the proposed rule. The commenter believes the definitions may lead to an interpretation that any regulated institution that sells or swaps pooled mortgages to investors, in an amount greater than $1 million per delivery, must have obtained certified appraisals on each of the loans in the pool. This is not the intent of the regulation. To avoid any confusion, the NCUA Board has amended this regulation to provide that the definition applies to each loan in the pool, but not the pool itself. In addition, NCUA has clarified that a purchase of a loan or interest in a loan will not require an appraisal of the property that serves as collateral, provided that the property was appraised in conformance with this regulation when the loan was originated. As a consequence, a regulated institution purchasing an interest in a pool will not have to have each property securing a loan reappraised. However, if a regulated institution intends to purchase a pool of loans that do not have conforming appraisals, then appraisals will have to be performed on the underlying real estate collateral prior to the purchase. In such an instance, the transaction value will be the individual amounts of the loans, not the aggregate amount of the pool.

*Section 722.3 Appraisals Not Required; Transactions Requiring A State-Certified or -Licensed Appraiser*

Under the proposed rule, an appraisal would not be required for any real estate-related transaction in which the transaction value is $15,000 or less. Most of the commenters discussed this provision and a substantial majority requested a higher dollar amount, although a minority of commenters believe that sound lending practices require an appraisal in almost all real estate-related transactions. Thirteen commenters believe the $15,000 limit is appropriate. Among the majority of commenters, the main reasons for increasing the dollar value on when an appraisal is not required were the geographical diversity in the U.S. housing market, the increased costs for borrowers, and the lengthening of the mortgage lending process if a low dollar amount was adopted. Several commenters noted that in many cases a credit union could extend credit to a borrower on an unsecured basis for amounts in excess of $15,000 and argued that it was their experience that there were very few losses attributable to small residential real estate loans and home equity loans.

Some commenters suggested using the tax-assessed value of a property and a "drive by" instead of the $15,000 limit for all home equity loans. Others commented that it would be a mistake for a credit union to use property tax assessments instead of an appraisal. They reasoned that the assessed valuation is usually not current and does not reflect the present condition of the property or the neighborhood. In addition, they assert that tax assessments are not accurate in a depressed home market and do not take into account the dumping of real estate inventory into the marketplace by the federal government. Some commenters suggest that no appraisal should be required if the loan-to-value ratio is a certain amount. Although NCUA considered the feasibility of implementing both of these suggestions, the Board believes that raising the dollar limit will adequately address the concerns expressed by the commenters.

*Abundance of Caution Section 722.3(a)*

Under the proposed rule, an appraisal is not required for any real estate-related financial transaction in which a lien on real property has been taken as collateral solely through an abundance of caution and where the terms of the transaction as a consequence have not been made more favorable than they would have been in the absence of a lien. Most of the negative commenters found the "abundance of caution" language confusing and believe it may foster conflict between NCUA examiners and credit union officials.

The final rule maintains the "abundance of caution" provision as it appeared in the proposed rule. NCUA interprets this exception narrowly, requiring that no material term of a loan be more favorable to the borrower because the regulated institution has taken real estate as collateral for the extension of credit. Accordingly, neither the amount of the loan, the rate of interest, the term of the loan, the presence or absence of a guarantor, or any other term affecting the regulated institution's ability to recover on the loan may be more favorable to the borrower. In short, this exception is intended to recognize that a credit union is not required to obtain an appraisal of real estate taken as collateral for a loan if the institution would have extended

credit to the borrower on exactly the same terms regardless of whether the real estate was taken as collateral.

*State-Certified and-Licensed Appraisers—Section 722.3(b)*

The NCUA Board requested comments on adopting a stricter standard for the use of certified appraisers because of the unique nature of credit unions. Specifically, the NCUA Board requested comments on requiring a certified appraiser on any "non-complex 1-to-4 family residential property appraisal" if the transaction value is in excess of $200,000, although the proposed rule required one only if the transaction value exceed $1 million.

Sixty-eight comments were received on this issue. A majority of these commenters rejected the idea of lowering the standard to $200,000. The commenters had two reasons for their position. First, they believe that a lowering of the $1 million threshold would put credit unions at a competitive disadvantage with other financial institutions. Second, these commenters believe that, in high-priced real estate areas, a $200,000 threshold for requiring a certified appraiser will significiantly increase the cost of an appraisal for higher-priced properties. The NCUA Board is persuaded by this line of reasoning and has decided to keep the threshold at $1 million.

Some commenters suggested that requiring the use of a certified appraiser when the value of a federally related transaction exceeds 10% of regular reserves and undivided earnings places smaller credit unions at a competitive disadvantage since they would be required to obtain a certified appraisal for the same transaction which a larger institution could enter into using a licensed appraiser. The NCUA Board agrees with these comments and has deleted this limitation in the final rule.

Seven commenters believe that licensed appraisers should be allowed to perform the appraisal on any noncomplex 1-to-4 family residential property, regardless of the transaction value. The general belief among these commenters is that, for noncomplex 1-to-4 family residential property, a licensed appraiser is just as qualified as a certified appraiser. In response to comments requesting an expanded use of state-licensed appraisers, the final rule has been changed to permit licensed appraisers to perform appraisals of all 1-to-4 residential properties, including complex, where the transaction value is less than $250,000.

A number of commenters specifically support requiring state-certified appraisers in all business loans involving real estate. Most commenters believe that business loans are the riskiest type of loans and, due to market volatility, should be appraised by the most qualified appraiser. A few commenters were against requiring state-certified appraisers on all business loans and some suggested requiring state-certified appraisers on all member business loans in excess of $100,000. In the final rule, a certified appraiser is required on any member business loan requiring an appraisal in excess of $50,000 due to the increase from $15,000 to $50,000 on when an appraisal is required.

*Section 722.4 Appraisal Standards*

The proposed rule sets forth the minimum standards to which appraisals will be subject. Some commenters specifically stated that these standards will increase the cost of appraisals. Many other commenters implied the same. Few comments were received on the specific standards listed in the proposed regulation.

Appraisal Foundation & Uniform Standards of Professional Appraisal Practice

Some commenters recommend removing any reference to the Appraisal Foundation and the USPAP because the Appraisal Foundation is an organization that is not representative of the entire appraisal industry and thus NCUA should not adopt the Appraisal Foundation's standards. Title XI requires that the standards of the Appraisal Standards Board of the Appraisal Foundation be used as evidence of generally accepted appraisal standards in promulgating this rule. This standard achieves that statutory mandate by requiring that appraisals prepared for federally related transactions be performed in accordance with USPAP.

Other commenters requested that NCUA provide credit unions with the current USPAP either in the final regulation or as a separate document. The standards will be published in the **Federal Register** before the effective date of this regulation. Only those provisions of the USPAP that are published in the **Federal Register** will apply to federally related transactions.

*Written Appraisals and Forms.* Section 722.4(a)(3) requires appraisals to be written in a narrative format, or on forms. One commenter specifically approved of this provision. Two commenters believe that all appraisals should be on FNMA/FHLMC documentation. These commenters believe this is the safest way to document appraisals. The NCUA Board believes that a credit union should be allowed to determine which format is best for the needs of the credit union. As a result, the final rule remains unchanged from the proposal.

*Sales History.* Four commenters approved of the sales history provision in § 722.4(a)(4). This section requires one-year sales histories for 1-to-4 family residential property and three years for all other types of property. However, one commenter suggested time periods of three and five years, respectively; another suggested two years for nonresidential property; while another commenter suggested a uniform three-year time frame. The NCUA Board believes one-year sales histories for 1-to-4 family residential property and three years for all other types of property are appropriate for the reasons stated in the section-by-section analysis.

*Marketing Period.* One commenter suggested a change in § 722.4(a)(6), while another commenter supported the standard which addresses the issue of the appraiser's estimate of what is a reasonable marketing period for the subject property. NCUA believes that this standard is necessary to ensure that accurate appraisals are prepared. The section remains unchanged.

*Deductions and Discounts.* Section 722.4(a)(8) requires appraisers to take into consideration appropriate deductions and discounts on any proposed construction. Two commenters believe this section needs additional clarification concerning commercial property. The NCUA Board has made additional clarification as explained in the section-by-section analysis.

*Legal Description.* Section 722.4(a)(11) requires a legal description of the property appraised. One commenter supported this standard. One commenter suggested that this legal description must be in addition to the description required by the USPAP. Although this was contained in the preamble to the final rule, NCUA has incorporated this suggestion into the final regulation to provide clarity and uniformity.

*Use of Recognized Appraisal Approaches.* Several commenters suggested that it was not feasible or reasonable to apply all approaches to valuation when appraising certain properties, such as 1-to-4 family residential properties, and that requiring this additional information would increase the cost of appraisals. This standard, found in proposed § 722.4(a)(13), requires an appraiser to follow a reasonable valuation method that addresses the three recognized approaches to estimating market value

and allows the appraiser to eliminate one or more approaches if it is not appropriate. For the reasons stated in the section-by-section analysis, the NCUA believes that this standard is necessary to the preparation of a reliable appraisal and, therefore, has retained this standard unchanged in the final rule.

*Section 722.5 Appraiser Independence*

The proposed rule requires fee appraisers to be hired by federally insured credit unions or their agents rather than by the borrower. The proposed rule also requires that staff appraisers not be supervised, controlled, or influenced by loan underwriters, loan officers, or collection officers. A substantial majority of commenters specifically approved of these provisions on appraiser independence for the reasons stated in the section-by-section analysis. However, one commenter disapproved of the appraiser independence provision stating that no amount of regulation will prevent collusion if the stakes are high enough.

Some commenters stated that the use of staff appraisers should be discouraged or eliminated altogether. The NCUA Board is unwilling to prohibit staff appraisers completely. The general consensus among these commenters is that no amount of regulation will prohibit the inherent conflict contained in the staff appraiser position. Other commenters believe that the appraiser independence provisions should be made even stronger.

As discussed in the section-by-section analysis to this rule, the NCUA believes that an appraiser must be independent of the lending and collection function in order to produce an objective opinion of the market value of a property. However, NCUA also recognizes that no single form of organizational structure would be appropriate for all credit unions. Thus, this provision recognizes that one credit union may engage fee appraisers to perform all appraisals for federally related transactions, another may establish a separate appraisal department wholly outside the lending and collection functions of the institution, while a third, smaller institution establishes procedures which permit a loan officer to perform appraisals as part of their employment requirements as long as he or she is not otherwise involved in the federally related transaction. The NCUA believes that the current provision puts credit unions on notice of what is required, and gives them the flexibility to develop structures and procedures to ensure that appraisers are independent and not subject to improper influences.

Some commenters wondered if the following practice would be permissible under the regulation. An FCU would have a list of five appraisers that they have interviewed, scrutinized, and determined to have the required level of competency and credentials. The borrowers would be able to pick a particular appraiser from the list. The FCU would then contract with the appraiser for the appraisal which would be delivered to the FCU upon request. This practice is acceptable under the final rule.

*Section 722.6 Professional Association Membership; Competency*

One commenter requested that the final rule state that, while membership in appraisal organizations may not be the sole factor to be considered when making an appraisal assignment, it may be brought into the mix of factors that are to be considered when determining an appraiser's competency. The Board believes this interpretation is clear from the plain language of the rule, *i.e.*, an appraiser may not be excluded "solely" for lack of membership. Another commenter wanted the regulation to state that all appraisers, including staff appraisers, must be state-certified or -licensed. This is not explicitly stated in the proposed rule, but it is clear that all appraisers must be certified or licensed to perform appraisals on all federally related real estate transactions required by the rule. For the sake of further clarity, this suggestion is incorporated into the final rule.

*Age of Appraisal*

Some commenters suggested that the final rule contain a maximum allowable age of an appraisal. They believe that there should be a maximum age (time from date of the appraisal to date of the application of the loan) for an appraisal, but that the age should not be so short as to unnecessarily require another appraisal be prepared in the uncommon instance where a mortgage is refinanced within a reasonably short time. Hence, the NCUA Board realizes that any specific time period will not be appropriate in all situations. NCUA has specifically decided to allow each institution to determine the allowable period for an appraisal, but recommends that any appraisal over one year old not be used.

July 1991

Six commenters were concerned about the July 1991 statutory deadline and how the regulation works if a state has not adopted the proper criteria. These commenters believe that it is unrealistic to require FCUs to obtain state-certified or -licensed appraisals in all states because many of these states will not be in position to provide these designations by the target date or will have licensed or certified so few appraisers by the target date that it will be extremely difficult to obtain appraisals. The Appraisal Subcommittee of the Federal Financial Institutions Examination Council has the authority to temporarily waive appraiser certification or licensing requirements for states having a scarcity of qualified appraisers. The NCUA Board is confident that this issue will be handled in a timely and responsible manner by the Appraisal Subcommittee and therefore refrains from addressing this issue.

**E. Section-by-Section Analysis**

This section contains further elaboration on changes made in the regulation as well as a complete analysis of each section of the final rule.

*Section 722.1 Authority, Purpose, and Scope*

This section identifies title XI of FIRREA as the authority under which this regulation is promulgated. Further, it lists those institutions which must comply with the regulation. The regulation applies to all federally insured credit unions and to the NCUA.

*Section 722.2 Definitions*

Except where noted below, the definitions set forth in title XI of FIRREA shall apply to the terms used in this regulation.

*Appraisal.* This definition currently is used by nineteen federal agencies. NCUA believes that this widespread use and acceptance will produce consistent appraisals.

*Complex 1- to 4-family residential property appraisal.* Section 1113 of FIRREA allows the use of a state-licensed appraiser for, among other federally related transactions, 1- to 4-family residential property appraisals, "unless the size and complexity requires a State certified appraiser." The NCUA Board deems a "complex 1- to 4-family residential property appraisal" to be one in which the property to be appraised, market conditions, or form of ownership is atypical. Examples of atypical factors may include age of improvements, architectural style, size of improvements, size of lot, neighborhood land use, potential environmental hazard liability, leasehold interests, limited readily available comparable sales data, or other unusual factors. This list is illustrative only.

Before hiring an appraiser, the credit union should assess the project to determine the qualifications that an appraiser will need to complete the appraisal assignment and whether the transaction, due to its complexity, would require a certified appraiser. A credit union may presume that appraisals of 1-to-4 family residential properties are not complex, unless the credit union has readily available information that suggests that a given appraisal will be complex. Such information may be provided, for instance, on a loan application. If the credit union or assigned appraiser discovers during the assignment that the transaction is a typical or beyond the appraiser's expertise, they are required to take the necessary action to remedy the deficiency. A certified appraiser could then be employed or the licensed appraiser could complete the appraisal and have a certified appraiser review and cosign the appraisal report.

*Market value.* This definition is commonly used in connection with mortgage lending by a number of government agencies and others. This definition contemplates the consummation of a sale as of a specified date and the passing of title from seller to buyer under open and competitive market conditions requisite to a fair sale. It is designed to provide an accurate and reliable measure of the economic potential of property involved in federally related transactions. Moreover, the NCUA Board believes that the widespread acceptance and use of this definition will provide consistency in appraisals.

In applying this definition of market value, adjustments to the comparables must be made for special or creative financing or sales concessions. No adjustments are necessary for those costs that are normally paid by sellers as a result of tradition or law in a market area; these costs are readily identifiable since the seller pays these costs in virtually all sales transactions. Special or creative financing adjustments can be made to the comparable property by comparisons to financing terms offered by a third-party financial institution that is not already involved in the property or transaction. Any adjustment should not be calculated on a mechanical dollar-for-dollar cost of the financing or concession, but the dollar amount of any adjustment should approximate the market's reaction to the financing or concessions based on the appraiser's judgment.

*Real estate-related financial transaction.* This definition is taken from section 1121(5) of FIRREA, except that "and" is replaced with "or" throughout so as to comply with the intent of Congress.

*State-certified appraiser.* This classification applies to appraisers who are recognized by the states as being more knowledgeable of and experienced in appraisals than are licensed appraisers. Section 1116 of FIRREA contemplates that each state or territory will adopt standards and procedures, consistent with the purposes of title XI, for obtaining the designation of "state-certified appraiser." To comply with the intent of title XI, each state's standards and procedures must require its certified appraisers to meet, at a minimum, the criteria for certification issued by the Appraisal Qualifications Board of the Appraisal Foundation. Moreover, no state or territory may certify an appraiser unless that individual passes an examination, administered by the state or territory, that is consistent with and equivalent to the Uniform State Certification Examination issued or endorsed by the Appraisal Foundation. The rule does not prevent a state from establishing additional certification criteria.

The NCUA under title XI may, in the future, establish certification criteria in addition to those adopted by a given state. Additionally, the Appraisal Subcommittee of the Federal Financial Institutions Examination Council may issue a written finding that the certification criteria of a state or territory are inadequate for specified reasons. Thus, an individual may be a "state-certified appraiser" only if (a) The individual complies with all state-imposed criteria and additional criteria, if any, imposed by the agency hereunder, and (b) the appraiser certifications and licenses of a state have not been rejected by the Appraisal Subcommittee. As of July 1, 1991, appraisals for federally related transactions must be performed by state-certified or -licensed appraisers, unless this deadline is extended by the Appraisal Subcommittee for a given state.

*State-licensed appraiser.* Each state may elect to adopt licensing criteria that are less rigorous than certification criteria. However, licensing criteria must be adequate to protect federal financial and public policy interests. For example, simply *grandfathering* all existing appraisers may not be acceptable. Rather, the states and territories are to design criteria that will insure that licensed appraisers will have the experience and training sufficient to perform 1-to-4 family residential property appraisals that are within the dollar thresholds set forth in this final regulation and that are not "complex 1-to-4 family residential property appraisals" as this term is defined.

As with state-certified appraiser criteria, NCUA may impose additional licensing requirements. Moreover, the Appraisal Subcommittee is charged with monitoring state appraiser certifying and licensing agencies, and may reject state certifications and licenses if a state's appraisal policies, practices, or procedures are found to be inconsistent with title XI or this proposed regulation.

*Track development.* A tract development may be units in a subdivision, condominium project, timeshare project, or any similar project meant to be sold as individual units over a period of time. A project will be deemed to be a tract development whether it currently is or is intended to be sold as a single development.

*Transaction value.* This definition is used to determine which transactions require a state-certified appraiser and/or state-licensed appraiser. NCUA will consider a series of related transactions as one transaction if it appears that a credit union is attempting to evade the requirements of Title XI of FIRREA or this regulation.

*Section 772.3 Transactions Requiring State-Certified or -Licensed Appraiser*

(a) *Appraisal not required.* Section 1121(4) of FIRREA defines a federally related transaction as a real estate-related financial transaction that, among other things, requires the services of an appraiser. NCUA recognizes that not all real estate-related financial transactions will require an appraiser. For instance, an appraisal would not be needed where a lien on real property has been taken as collateral solely through an abundance of caution. Collateral will be deemed to be taken in an abundance of caution where the terms, as a consequence, have not been made more favorable than they would have been in the absence of the lien. Accordingly, this exception is intended to have very limited application. In addition, NCUA does not require a state-certified or -licensed appraiser for real estate-related financial transactions having a transaction value less than or equal to $50,000. A third instance where a state-certified or -licensed appraiser is not required is a lease that is not the economic equivalent of a purchase or sale of real estate. An example of such a lease is sublease by a credit union of a portion of its premises to unrelated third party. On the other hand, an assignment of a lease as collateral for the extension

of credit would be the economic equivalent of a purchase or sale. Fourth, NCUA will not require a state-certified or -licensed appraiser for transactions resulting from a maturing extension of credit, provided that the borrower has made all scheduled payments under the note, no new funds are advanced, the borrower remains creditworthy, and the marked conditions and collateral have not significantly deteriorated. Finally, a state-certified or -licensed appraiser will not be required if a regulated institution purchases an interest in a loan secured by real property if the underlying collateral was appraised in accordance with this regulation. If the property was not adequately appraised, then the regulated institution must order an appraisal for that property.

(b) *Transactions requiring State-certified appraiser.* Title XI requires a state-certified appraiser to be used if the size of the transaction and the complexity of the appraisal warrant the expertise of the state-certified appraiser. The regulation requires a state-certified appraiser to be used in three instances. First, all appraisals rendered in connection with a federally related transaction having a transaction value of $1,000,000 or more require a state-certified appraiser, regardless of complexity. Second, all federally related transactions having a transaction value greater than $50,000, except those involving appraisals of 1-to-4 family residential properties, require a state-certified appraiser. Third, 1-to-4 family residential property appraisals require a state-certified appraiser if the transaction value is $250,000 or more and the appraisal will be complex.

(c) *Transactions requiring either a state-certified or -licensed appraiser.* Any federally related transaction that does not require the services of a state-certified appraiser must be performed by a least a state-licensed appraiser. State-licensed appraisers may perform appraisals rendered in connection with any 1-to-4 family residential property having a transaction value less than $250,000. In addition, state-licensed appraisers may perform appraisals to 1-to-4 family residential properties for transactions with a value up to but not including $1,000,000 if the appraisal will not be complex. Of course, state-licensed appraisers may perform appraisals rendered in connection with a property that has a transaction value of $50,000 or less.

(d) *Valuation.* Sound lending policy requires that each credit union identify the types of real estate lending which it will offer, as well as the underwriting procedures associated with each type of loan. For real estate secured transactions of $50,000 or less, credit unions are expected to establish policies that address the need to ascertain the value of collateral offered by borrowers. This is necessary to ensure that the credit union is adequately protected throughout the life of the loan. A valuation is not required for transactions for which one of the four exceptions listed in § 722.3(a) (2), (3), (4) or (5) apply, regardless of value. At a minimum, the valuation should be performed by an individual who is qualified and experienced with the type of property being valued and has no direct or indirect interest in the property being evaluated. The valuation should reasonably estimate market value, as defined in section 722.2(f), with sufficient accuracy to protect the credit union's interest throughout the term of the loan.

*Section 722.4 Appraisal Standards*

(a) *Minimum standards.* Section 1110 of FIRREA instructs NCUA to prescribe appropriate standards for the performance of appraisals made in connection with federally related transactions. Further, section 1110 mandates that the standards require, at a minimum, that appraisals be written and that they conform to the generally accepted appraisal standards promulgated by the Appraisal Standards Board of the Appraisal Foundation. NCUA is empowered to require compliance with additional appraisal standards if it makes a written determination that such additional standards are required in order to properly carry out its statutory responsibilities. Section 722.4 of the regulation incorporates the minimum standards set forth in the statute, while listing additional criteria that shall apply to all appraisals performed in connection with federally related transactions.

In enacting title XI of FIRREA, Congress was responding to perceived problems in the appraisal industry. These problems were identified by the House Committee on Government Operations. They have been cited repeatedly in the legislative history of Title XI. NCUA has adopted the following standards to further the legislative intent in addressing these problems. These standards are designed to contribute to safety and soundness by requiring reliable appraisals.

(1) *Compliance with USPAP; departure provision.* This standard incorporates the current standards in the USPAP, and clarifies that the Departure Provision (which allows deviations from the standards) in the USPAP is inapplicable to appraisals conducted in connection with federally related transactions. The NCUA Board believes that the Departure Provision allows appraisal services to be performed which produce something different from the "appraisal" contemplated by title XI of FIRREA. For instance, in accordance with the Departure Provision and consistent with current USPAP requirements, a letter opinion might be produced, consistent with current USPAP requirements, that could be silent about trends of rents, vacancies, or overbuilding. The Comment on the Departure Provision in the USPAP lists examples of when the departure provision might apply; however, for purposes of the proposed regulation, such services are not appraisals as this term is used in Title XI. The NCUA Board believes that the Departure Provision in the USPAP allows for the omission of data that should be included in developing and reporting appraisals rendered in connection with federally related transactions and, therefore, has determined that the Departure Provision shall not apply to such appraisals.

Changes in the USPAP after August 9, 1990, will not apply to federally related transactions unless NCUA has provided prior notice in the **Federal Register** of the changes and interested persons have had an opportunity to comment.

(2) *Market value.* This standard requires an appraisal to document an appraiser's opinion of a property's "market value" as this term is defined. The definition of "market value" was developed by Fannie Mae and Freddie Mac with the input of many professional appraisal organizations. Without such a standard, a lender might select a definition of value that allows the value of real property to be increased by favorable financing, going concern value, or special value to a specific user. This standard proposes to provide to interested parties the information necessary to determine the value of property.

(3) *Written appraisals; forms.* This standard sets forth the legislative mandate that all appraisals be written. Moreover, it requires an appraisal to be sufficiently descriptive to enable reviewer to readily ascertain the estimated value reported and the rationale for that estimate. The appraisal may be in a narrative format or on a form chosen by an appraiser, but the appraisal must comply with all other provisions of the regulation. A form not initially designed for use in connection with federally related transactions may be used provided that it is modified as

necessary to comply with the requirements of title XI and this proposed regulation. Regardless of the format selected, the appraisal must be able to be readily understood by a third party and must reflect the complexity of the property that is appraised. This will enable the reader of the appraisal to independently determine its adequacy based upon the characteristics of the collateral appraised.

(4) *Sales history.* This standard is designed to enable a reviewer to compare an appraiser's opinion of a property's market value with recent sales prices. In addition to giving the reviewer a basis by which to evaluate the accuracy of the subject property appraisal, it also will assist the reviewer in identifying recent trends in market prices. A sales history may identify a single sale or a series of sales at artificially inflated prices.

Sales histories are required for one year for 1-to-4 family residential property and for three years for all other types of property. A more demanding reporting standard for nonresidential property is imposed because larger loan amounts are generally granted and, hence, larger risk to the credit union incurred, when the loan security is not a 1-to-4 family dwelling.

(5) *Revenues, expenses and vacancies.* An appraisal should disclose current income produced by a property if the property will continue to be used to generate income after a transaction is consummated. This information is essential for an accurate picture of the market value of a property. Appraisal values should be predicated upon current revenues, expenses and vacancies for the subject property if it is income-producing. That is, appraisals should be based upon income that can realistically be earned under current market and economic conditions (in light of rents being earned on comparable properties), rather than upon estimated or projected income that cannot be supported by current market conditions. If an appraiser reports a high current vacancy, this condition may require a lender to impose special conditions on the loan.

(6) *Marketing period.* This standard requires an appraiser to employ a marketing period that is reasonable in light of a given property's characteristics and market conditions and to disclose the assumptions used. An appraiser's opinion of market value will depend in part on the appraiser's estimate of how long a given piece of property will remain for sale. For instance, an appraisal using a long marketing period is likely to produce a higher market value than would an appraisal using a shorter marketing period. This information will better enable the reader of the appraisal to assess its accuracy.

(7) *Trend analysis.* An appraisal should inform the reader of any market trends, regardless of whether the trend reflects rising or declining values. Such trends might include, for example, increasing vacancy rates, greater use of rent concessions, or declining sales prices. Identification of negative trends is particularly important so that federally insured credit unions may avoid extending credit on the basis of insufficient collateral. Market trends may be indicated in market activity on the subject property, such as listing, options, sales agreements; accordingly, such activity should be disclosed.

(8) *Deductions and discounts.* This standard is designed to avoid having appraisals prepared using unrealistic assumptions. For federally related transactions, the appraisal is to include, among other values, an "as is" value; this is the value of the property in its current physical condition and subject to the zoning in effect as of the date of the appraisal. For properties where improvements are to be constructed or rehabilitated, the regulated institution may request a value based on stabilized occupancy or a value based on the sum of retail sales (condominiums, lot developments, or timeshares). However, the sum of retail sales for a proposed development is not the market value of the development. For proposed developments that involve the sale of individual houses, units, or lots, the appraiser must analyze and report appropriate deductions and discounts for holding costs, marketing costs and entrepreneurial profit. For proposed and rehabilitated rental developments, the appraiser must make appropriate deductions and discounts for items such as leasing commissions, rent losses and tenant improvements from the market value estimate based on stabilized occupancy.

(9) *Prohibited influences.* All appraisals are to be performed without pressure from someone who desires a specific value. Accordingly, every appraisal rendered in connection with a federally related transaction shall include a statement to the effect that employment of the appraiser was not conditioned upon the appraisal producing a specific value or a value within a given range. Similarly, future employment prospects should not be dependent upon an appraisal producing a specified value. Employment and compensation should not be based on whether a loan application is approved, as this, too, would exert pressure on an appraiser to render whatever appraisal is necessary for the loan to be approved.

(10) *Self-contained appraisals.* This standard requires an appraisal to contain all information necessary to enable a reader of an appraisal to understand the appraiser's opinion. The appraisal should not incorporate by reference a document that is not readily available to the reader. Studies prepared by a third party should be verified to the extent his or her assumptions or conclusions are used. Moreover, the appraiser's acceptance or rejection of a third-party study and its impact on value should be fully explained. The appraisal itself should enable the reader to understand the conclusion without having to refer to numerous other documents. Moreover, the conclusion must be reasonable in light of the information set forth in the appraisal. These requirements will force an appraiser to obtain adequate data before issuing an opinion of value.

(11) *Legal description.* A legal description of the property is to be included in an appraisal so as to avoid confusion that may arise from less precise identification. The description of real property contained in a deed will satisfy this requirement. This requirement will enable a reader to compare the legal description in the appraisal to the legal description in the loan documents. The legal description is to be provided in addition to, and not in lieu of, the description required in the USPAP.

(12) *Personal property, fixtures, and intangible items.* An appraisal is to include a separate assessment of personal property, fixtures, or intangible items that are attached to or located on real property if the personal property, fixture, or intangible items affect the market value of the real property. Furniture and fixtures should have separate valuations because their economic life is shorter than real property improvements and may require special lending or investment considerations. If the personal property, fixture, or intangible item is not a part of the transaction, then this fact should be stated and the impact on market value should be disclosed. Favorable loan financing or any business interest or other intangible item should be valued separately within the appraisal. These requirements will help provide a reader with a more complete understanding of the market value of the real property as it will be at the time the transaction is entered into.

(13) *Use of recognized appraisal approaches.* At the request of clients, some appraisers have not prepared cost

estimates of value, or estimates of value based on the capitalization of income, or value estimates based on direct sales comparisons. This standard requires an appraiser to address each of these recognized approaches to market value and explain how each approach was used. However, if one or more approaches are not used, an appraiser is to explain the elimination of any approach. This requirement is intended to produce appraisals made only after all approaches to market value have been considered and reconciled, thereby improving the accuracy of the appraisal. Disclosure of the fact that an approach was not used will assist the reader in evaluating the adequacy of the appraisal.

(b) *Unavailability of information.* The NCUA Board realizes that some information required by the USPAP or this regulation may be unavailable. For example, historic rent data will not exist for a building under construction at the time of appraisal. However, an appraisal should inform the reader of any material information that is unavailable and why such information could not be obtained, so as to assist the reader in reviewing the appraisal.

(c) *Additional standards.* The standards required by this regulation are the minimum standards to be met by every appraisal made in connection with a federally related transaction. However, the NCUA and federally insured credit unions may employ additional standards if circumstances so warrant.

*Section 722.5 Appraiser Independence*

An appraiser's goal should be to produce an objective opinion about the market value of a property. This objectivity may be compromised if the appraiser is involved in the transaction, such as deciding whether to extend credit. An opinion about the merits of the transaction potentially will affect the results of the appraisal. Similarly, a direct or indirect interest in the property appraised may undermine the accuracy of the appraisal. A direct interest would arise, for example, by owning all or part of the property being appraised. An indirect interest would arise if, for example, an appraiser owns property adjacent to the parcel being appraised.

This indirect interest would extend to any property whose value is likely to be affected by an appraisal, if the appraisal is the proximate cause for the effect. Moreover, the interest may be nonpecuniary, such as a desire to help an associate obtain a loan.

To further the goal of appraisal independence, the NCUA requires that fee appraisers (that is, appraisers not permanently employed by a FICU) be hired by federally insured credit unions or their agents rather than by the borrower. An appraisal performed for one regulated institution may be used by another if the latter institution has adequately reviewed the appraisal, documented such review, and found the appraisal to have complied with this regulation. In order to avoid potential conflicts of interest, staff appraisers (appraisers that are permanently employed by a federally insured credit union) should not be supervised, controlled, or influenced by loan underwriters, loan officers, or collection officers.

The NCUA Board recognizes that in certain cases it may be necessary for loan officers and directors to perform appraisals. Such cases would depend on a credit union's particular circumstances; an example would be a small credit union where the only qualified individual to perform appraisals is a loan officer, and separating this person from the loan and collection departments is imposible. It should be noted that directors and loan officers who perform appraisals in connection with federally related transactions must be licensed or certified, as appropriate. In any case, the conflict provisions of § 701.21(c)(8) apply and prohibit directors and loan officers from receiving payment for the performance of appraisals for the credit union.

*Section 722.6 Professional Association Membership; Competency*

(a) *Membership in appraisal organizations.* The legislative history evidences an intent to prohibit discrimination against appraisers solely by virtue of membership or lack of membership in a particular appraisal organization. Accordingly, this regulation prohibits any entity covered by title XI from basing decisions regarding the employment of appraisers solely on membership or lack of membership in an appraisal organization. Federally insured credit unions should review the qualifications of appraisers rather than the qualifications of appraisal organizations to ensure that a qualified individual is being employed. Membership in an organization may be considered; however, it may not be the sole determining factor in accepting or rejecting an appraiser.

(b) *Competency.* Not all appraisers are competent to perform every type of appraisal that will be needed in connection with federally related transactions. For instance, an appraiser who is experienced in appraising 1-to-4 family residential properties may not be competent to appraise a small business. Credit unions should look beyond an individual's title to determine if he or she has the experience and training needed to perform the appraisal. This provision is not intended to prohibit an individual in every circumstance from appraising a type of property with which he or she is not familiar. However, an appraiser may perform the appraisal only in accordance with the Competency Provision in the USPAP, which requires an appraiser to have both the knowledge and the experience required to perform a specific appraisal service competently. In addition, an individual who is not a state-certified or -licensed appraiser may assist in the preparation of an appraisal if he or she is directly supervised by a certified or licensed appraiser, as appropriate, and the appraisal is approved and signed by a certified or licensed appraiser.

*Section 722.7 Enforcement*

Section 1120 of FIRREA vests each of the federal financial institution regulatory agencies with the authority to bring an action for civil money penalties against a regulated institution and any institution-affiliated parties within the agency's primary jurisdiction. The regulation makes clear that additional enforcement remedies available to NCUA under the Federal Credit Union Act also apply. These can include civil money penalties and cease-and-desist orders, as well as orders of removal and prohibitions against institutions and institution-affiliated parties. "Institution-affiliated parties" specifically includes, but is not limited to, appraisers.

*Section 701.21(a)*

A sentence cross referencing part 722 and the appraisal requirements is added to § 701.21(a) which sets forth the scope and purpose of NCUA's lending regulation.

*Section 741.4*

A technical amendment to § 741.4 is added to require that all federally insured credit unions comply with part 722. A new § 741.4 is inserted and the sections following it are renumbered.

**Paperwork Reduction Act**

The regulation contains a requirement for the collection of additional information by a federally insured credit union. The regulation requires the submission of specific information on appraisals for a significant number of federally-related real estate transactions. The paperwork requirements were submitted to the

Office of Management and Budget for approval under the Paperwork Reduction Act. A notice will be published in the **Federal Register** once approval is received from OBM.

**Administrative Procedure Act**

The NCUA Board adopts this regulation as a final rule effective on August 9, 1990, without the usual 30 day delay after publication in the **Federal Register** provided for in the Administrative Procedure Act ("APA"), 5 U.S.C. 553. That requirement may be waived upon a showing of "good cause" by the promulgating agency, 5 U.S.C. 553(d)(3). The NCUA Board finds that good cause exists for implementing this rule on August 9, 1990 as required by title XI of FIRREA. First, this implementation of the final appraisal regulation serves the public interest in improving the safety and soundness of credit unions by providing a reasonable degree of assurance that real estate appraisals used in connection with federally related transactions will be reliable. The proposed rule was published with a 60-day comment period. The final rule make minor modifications to the proposed rule. Second title XI of FIRREA requires, *inter alia*, that appropriate rules are to take effect upon adoption in final form no later than August 9, 1990. *See* title XI of FIRREA, section 1115. For these reasons, the NCUA Board finds that good cause exists in this case for dispensing with the APA delayed effective date requirement and for adopting this regulation with an effective date of August 9, 1990.

**Regulatory Flexibility Act**

The NCUA Board hereby certifies that this regulation does not have a significant impact on a substantial number of small credit unions. A substantial number of small credit unions will not be making loans subject to this regulation. Accordingly the Board has determined that a Regulatory Flexibility Analysis is not required. In addition, the NCUA is required by statute to promulgate this regulation.

**Executive Order 12612**

This regulation will apply to all federally insured credit unions. The NCUA Board, pursuant to Executive Order 12612, has determined, that the proposed amendment may have a substantial direct effect on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, but that title XI of FIRREA requires that this regulation apply to all federally insured credit unions.

**List of Subjects in 12 CFR Parts 701, 722 and 741**

Credit unions, appraisals, State-certified and State-licensed appraisers.

By the National Credit Union Administration Board on July 17, 1990.

**Hattie M. Ulan,**

*Acting Secretary of the Board.*

Accordingly, NCUA amends its regulations, 12 CFR chapter VII, as follows:

## PART 701—ORGANIZATION AND OPERATION OF FEDERAL CREDIT UNIONS

1. The authority citation for part 701 continues to read as follows:

**Authority: 12 U.S.C. 1752(5), 1755, 1756, 1757, 1759, 1761a, 1761b, 1766, 1767, 1782, 1784, 1787, 1789, and Pub. L. 101–73.**

**Section 701.6 is also authorized by 31 U.S.C. 3717. Section 701.31 is also authorized by 15 U.S.C. 1601 et seq., 42 U.S.C. 1981 and 42 U.S.C. 3601–3610.**

2. Section 701.21(a) is revised to read as follows:

**§ 701.21 Loans to members and lines of credit to members.**

(a) *Statement of scope and purpose.* Section 701.21 complements the provisions of section 107(5) of the Federal Credit Union Act (12 U.S.C. 1757(5)) authorizing Federal credit unions to make loans to members and issue lines of credit (including credit cards) to members. Section 107(5) of the Act contains limitations on matters such as loan maturity, rate of interest, security, and prepayment penalties. Section 701.21 interprets and implements those provisions. In addition, § 701.21 states the NCUA Board's intent concerning preemption of state laws, and expands the authority of Federal credit unions to enforce due-on-sale clauses in real property loans. Also, while § 701.21 generally applies to Federal credit unions only, its provisions may be used by state-chartered credit unions with respect to alternative mortgage transactions in accordance with title VII of Public Law 97–320, and certain provisions apply to loans made by federally-insured state-chartered credit unions as specified in 12 CFR 741.3. Part 722 of this chapter sets forth requirements for appraisals for certain real estate secured loans made under § 701.21 and any other applicable lending authority. Finally, it is noted that § 701.21 does not apply to loans by Federal credit unions to other credit unions (although certain statutory limitations in section 107 of the Act apply), nor to loans to credit union organizations which are governed by section 107(5)(D) of the Act and § 701.27 of this part.

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## PART 722—[ADDED]

3. Part 722 is added to read as follows:

## PART 722—APPRAISALS

Sec.

722.1 Authority, purpose, and scope.
722.2 Definitions.
722.3 Appraisals not required; transactions requiring a state-certified or -licensed appraiser.
722.4 Appraisal standards.
722.5 Appraiser independence.
722.6 Professional association membership; competency.
722.7 Enforcement.

**Authority: 12 U.S.C. 1766, 1789 and Pub. L. No. 101–73.**

**§ 722.1 Authority, purpose and scope.**

(a) *Authority.* Part 722 is issued by the National Credit Union Administration ("NCUA") under title XI of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 ("FIRREA") (Pub. L. No. 101–73, 103 Stat. 183, 1989) and 12 U.S.C. 1757 and 1766.

(b) *Purpose and scope.* (1) Title XI provides protection for federal financial and public policy interests in real estate-related transactions by requiring real estate appraisals used in connection with federally related transactions to be performed in writing, in accordance with uniform standards, by appraisers whose competency has been demonstrated and whose professional conduct will be subject to effective supervision. This Part implements the requirements of title XI and applies to all federally related transactions entered into by the National Credit Union Administration or by federally insured credit unions ("regulated institutions").

(2) This part:

(i) Identifies which real estate-related financial transactions require the services of an appraiser;

(ii) Prescribes which categories of federally related transactions shall be appraised by a state-certified appraiser and which by a state-licensed appraiser; and

(iii) Prescribes minimum standards for the performance of real estate appraisals in connection with federally related transactions under the jurisdiction of the National Credit Union Administration.

**§ 722.2 Definitions.**

(a) *Appraisal* means a written statement independently and impartially prepared by a qualified appraiser setting forth an opinion as to the market value of an adequately-described property as of a specific date(s), supported by the presentation and analysis of relevant market information.

(b) *Appraisal Foundation* means the Appraisal Foundation established on November 30, 1987, as a not-for-profit corporation under the laws of Illinois.

(c) *Appraisal Subcommittee* means the Appraisal Subcommittee of the Federal Financial Institutions Examination Council.

(d) *Complex 1- to 4-family residential property appraisal* means one in which the property to be appraised, the form of ownership or market conditions are atypical.

(e) *Federally related transaction* means any real estate-related financial transaction entered into on or after August 9, 1990 that:

(1) The National Credit Union Administration, or any federally insured credit union, engages in or contracts for; and

(2) Requires the services of an appraiser.

(f) *Market value* means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

(1) Buyer and seller are typically motivated;

(2) Both parties are well informed or well advised; and acting in what they consider their own best interests;

(3) A reasonable time is allowed for exposure in the open market;

(4) Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

(5) The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

(g) *Real estate-related financial transaction* means any transaction involving:

(1) The sale, lease, purchase, investment in or exchange of real property, including interests in property, or the financing thereof; or

(2) The refinancing of real property or interests in real property; or

(3) The use of real property or interests in property as security for a loan or investment, including mortgage-backed securities.

(h) *State-certified appraiser* means any individual who has satisfied the requirements for certification in a state or territory whose criteria for certification as a real estate appraiser currently meet the minimum criteria for certification issued by the Appraiser Qualification Board of the Appraisal Foundation. No individual shall be a state-certified appraiser unless such individual has achieved a passing grade upon a suitable examination administered by a state or territory that is consistent with and eqivalent to the Uniform State Certification Examination issued or endorsed by the Appraiser Qualification Board. In addition, the Appraisal Subcommittee must not have issued a finding that the policies, practices, or procedures of a state or territory are inconsistent with title XI of FIRREA. The National Credit Union Administration may, from time to time, impose additional qualification criteria for certified appraisers performing appraisals in connection with federally related transactions within its jurisdiction.

(i) *State-licensed appraiser* means any individual who has satisfied the requirements for licensing in a state or territory where the licensing procedures comply with title XI of FIRREA and where the Appraisal Subcommittee has not issued a finding that the policies, practices, or procedures of the State or territory are inconsistent with title XI. The NCUA may, from time to time, impose additional qualification criteria for licensed appraisers performing appraisals in connection with federally related transactions within its jurisdiction.

(j) *Tract development* means a project of five units or more that is constructed or is to be constructed as a single development.

(k) *Transaction value means:*

(1) For loans or other extensions of credit, the amount of the loan or extension of credit; and

(2) For sales, leases, purchases, and investments in or exchanges of real property, the market value of the real property interest involved; and

(3) For the pooling of loans or interests in real property for resale or purchase, the amount of the loan or market value of the real property calculated with respect to each such loan or interest in real property.

**§ 722.3 Appraisals not required; transactions requiring a State-certified or -licensed appraiser.**

(a) *Appraisals not required.* An appraisal performed by a state-certified or -licensed appraiser is not required for any real estate-related financial transaction in which:

(1) The transaction value is $50,000 or less;

(2) A lien on real property has been taken as collateral solely through an abundance of caution and where the terms of the transaction as a consequence have not been made more favorable than they would have been in the absence of a lien;

(3) A lease of real estate is entered into, unless the lease is the economic equivalent of a purchase or sale of the leased real estate;

(4) There is a subsequent transaction resulting from a maturing extension of credit, provided that:

(i) The borrower has performed satisfactorily according to the original terms;

(ii) No new monies have been advanced;

(iii) The credit standing of the borrower has not deteriorated; and

(iv) There has been no obvious and material deterioration in market conditions or physical aspects of the property which would threaten the institution's collateral protection; or

(5) A regulated institution purchases a loan or interest in a loan, pooled loans or interests in real property, including mortgage-backed securities, provided that the appraisal prepared for each pooled loan or real property interest met the requirements of this regulation, if applicable, at the time of origination.

(b) *Transactions requiring a State-certified appraiser.* (1) (All transactions of $1,000,000 or more) All federally related transactions having a transaction value of $1,000,000 or more shall require an appraisal prepared by a state-certified appraiser.

(2) (Nonresidential transactions) All federally related transactions having a transaction value of more than $50,000, other than those involving appraisals of 1- to 4-family residential properties, shall require an appraisal prepared by a state-certified appraiser.

(3) (Complex residential transactions of $250,000 or more) All complex 1- to 4-family residential property appraisals rendered in connection with federally related transactions shall require a state-certified appraiser if the transaction value is $250,000 or more. A regulated institution may presume that appraisals of 1- to 4-family residential properties are not complex unless the

institution has readily available information that a given appraisal will be complex. The regulated institution shall be responsible for making the final determination of whether the appraisal is complex. If, during the course of the appraisal, a licensed appraiser identifies factors that would result in the property, form of ownership, or market conditions being considered atypical, then either:

(i) The regulated institution may ask the licensed appraiser to complete the appraisal and have a certified appraiser approve and cosign the appraisal; or

(ii) The institution may engage a certified appraiser to complete the appraisal.

(c) *Transactions requiring either a State-certified or -licensed appraiser.* All appraisals for federally related transactions not requiring the services of a state-certified appraiser shall be prepared by either a state-certified appraiser or a state-licensed appraiser.

(d) *Valuation requirement.* Secured transactions exempted from appraisal requirement pursuant to paragraph (a)(1) of this section (transactions of $50,000 or less) and not otherwise exempted from this regulation shall be supported by a written estimate of market value, as defined in this regulation, performed by an individual having no direct or indirect interest in the property, and qualified and experienced to perform such estimates of value for the type and amount of credit being considered.

**§ 722.4 Appraisal standards.**

(a) *Minimum standards.* For federally related transactions, all appraisals shall, at a minimum:

(1) Conform to the Uniform Standards of Professional Appraisal Practice ("USPAP") adopted by the Appraisal Standards Board of the Appraisal Foundation, except that the Departure Provision of the USPAP shall not apply to federally related transactions;

(2) Be based upon the definition of market value as set forth in section 722.2(f);

(3) (i) Be written and presented in a narrative format, or on forms, that satisfy all the requirements of this section;

(ii) Be sufficiently descriptive to enable the reader to ascertain the estimated market value and the rationale for the estimate;

(iii) Provide detail and depth of analysis that shall reflect the complexity of the real estate appraised;

(4) Analyze and report in reasonable detail any prior sales of the property being appraised that occurred within the following time periods:

(i) For 1- to 4-family residential property, one year preceding the date when the appraisal was prepared; and

(ii) For all other property, three years preceding the date when the appraisal was prepared;

(5) Analyze and report data on current revenues, expenses and vacancies for the property if it is and will continue to be income-producing;

(6) Analyze and report a reasonable marketing period for the subject property;

(7) Analyze and report on current market conditions and trends that will affect projected income or the absorption period, to the extent they affect the value of the subject property;

(8) Analyze and report appropriate deductions and discounts for any proposed construction, or any completed properties that are partially leased, any properties that are partially leased or leased at other than market rents, as of the date of the appraisal, or any tract developments with unsold units;

(9) Include in the certification required by the USPAP an additional statement that the appraisal assignment was not based on a requested minimum valuation, a specific valuation, or the approval of a loan;

(10) Contain sufficient supporting documentation with all pertinent information reported so that the appraiser's logic, reasoning, judgment, and analysis in arriving at a conclusion which indicates to the reader the reasonableness of the market value reported;

(11) Include a legal description of the real estate being appraised, in addition to the description required by the USPAP;

(12) Identify and separately value any personal property, fixtures, or intangible items that are not real property but are included in the appraisal, and discuss the impact of their inclusion, or exclusion, on the estimate of market value; and

(13) Follow a reasonable valuation method that addresses the direct sales comparison, income, and cost approaches to market value, reconciles those approaches, and explains the elimination of each approach not used.

(b) *Unavailability of information.* If information required or deemed pertinent to the completion of an appraisal is unavailable, that fact shall be disclosed and explained in the appraisal.

(c) *Additional standards.* Nothing contained herein shall prevent a federally insured credit union from requiring additional appraisal standards if deemed appropriate.

**§ 722.5 Appraiser independence.**

(a) *Staff appraiser.* If an appraisal is prepared by a staff appraiser, that appraiser must be independent of the lending, investment, and collection functions and not involved, except as an appraiser, in the federally related transaction, and have no direct or indirect interest, financial or otherwise, in the property. If the only qualified persons available to perform an appraisal are involved in the lending, investment, or collection functions of the credit union, the credit union shall take appropriate steps to ensure that the appraisers exercise independent judgment. Such steps include, but are not limited to, prohibiting an individual from performing an appraisal in connection with federally related transactions in which the appraiser is otherwise involved.

(b) *Fee appraisers.* If an appraisal is prepared by a fee appraiser, the appraiser shall be engaged directly by the federally insured credit union or its agent, and have no direct or indirect interest, financial or otherwise, in the property or transaction. A federally insured credit union may accept an appraisal that was prepared by an appraiser engaged directly by another institution subject to title XI of FIRREA, if the credit union that accepts the appraisal has:

(1) Established procedures for review of real estate appraisals;

(2) Reviewed the appraisal under the established review procedures, finding the appraisal acceptable; and

(3) Documented the review in writing.

**§ 722.6 Professional association membership; competency.**

(a) *Membership in appraisal organization.* A state-certified appraiser or a state-licensed appraiser may not be excluded from consideration for an assignment for a federally related transaction solely by virtue of membership or lack of membership in any particular appraisal organization.

(b) *Competency.* All staff and fee appraisers performing appraisals in connection with federally related transactions must be state-certified or licensed as appropriate. However, a state-certified or -licensed appraiser may not be considered competent solely by virtue of being certified or licensed. Any determination of competency shall be based upon the individual's experience and educational background as they relate to the particular appraisal assignment for which he or she is being considered.

**§ 722.7 Enforcement.**

Credit unions and institution-affiliated parties, including staff appraisers and fee appraisers, may be subject to removal and/or prohibition orders, cease-and-desist orders, and the imposition of civil money penalties pursuant to section 1786 of the Federal Credit Union Act, or any other applicable law.

## PART 741—REQUIREMENTS FOR INSURANCE

4. The authority citation for part 741 is revised to read as follows:

Authority: 12 U.S.C. 1757, 1766, 1781 through 1790 and Public Law 101–73. Section 741.10 is also authorized by 31 U.S.C. 3717.

[§§ 741.4 through 741.11 redesignated as §§ 741.5 through 741.12 respectively]

5. Sections 741.4, 741.5, 741.6, 741.7, 741.8, 741.9, 741.10, and 741.11 are redesignated as 741.5, 741.6, 741.7, 741.8, 741.9, 741.10, 741.11, and 741.12, respectively.

6. A new § 741.4 is added to read as follows:

**§ 741.4 Appraisal requirements.**

Any credit union that is insured pursuant to title II of the Act must adhere to the requirements stated in part 722 of this chapter concerning appraisals.

[FR Doc. 90–17242 Filed 7–24–90; 8:45 am]
BILLING CODE 7535-01-M

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## 12 CFR Part 724

## Trustees and Custodians of Pension Plans

**AGENCY:** National Credit Union Administration.

**ACTION:** Final amendment.

**SUMMARY:** This final agreement adds to NCUA's regulation the authority for federal credit unions to offer self-directed IRA and Keogh accounts and act as the custodian of such accounts pursuant to certain conditions. There are no substantive changes to this authority which was previously set forth in Interpretive Ruling and Policy Statement Number 85–1; it is intended as a classification of the existing regulation.

**EFFECTIVE DATE:** July 25, 1990.

**ADDRESSES:** National Credit Union Administration, 1776 G Street NW., Washington, DC 20456.

**FOR FURTHER INFORMATION CONTACT:** Michael J. McKenna, Office of General Counsel, at above address or telephone: 202/682–9630.

**SUPPLEMENTARY INFORMATION:**

### Paperwork Reduction Act

The Office of Management and Budget has approved the collection requirements contained in part 724 of NUCA's regulations (OMB No. 3133–0035) relating to federal credit unions acting as trustees and custodians of pension plans. The final amendment is within these collection requirements.

### Background

Part 724 currently allows federal credit unions (FCUs) to act as custodians for Individual Retirement Accounts (IRAs) and Keogh Accounts provided that the funds are invested in share or share certificate accounts in the FCU. (*See* § 724.1.) The regulation also requires that the plan provide for the appointment of a successor trustee other than a federal credit union. (*See* § 724.2 recodified now as § 724.3.)

### Interpretative Ruling and Policy Statement 85–1

In 1985, the NCUA Board issued Interpretive Ruling and Policy Statement 85–1 (IRPS 85–1). (*See* 50 FR 48176 (11/22/85).) IRPS 85–1 states that a federal credit union is authorized to offer and serve as trustee or custodian of self-directed IRA and Keogh accounts where all funds are initially deposited in a share or share certificate account at the FCU and any subsequent transfers of such funds to other assets are solely at the discretion and direction of the FCU member establishing the account. On November 21, 1989, the NUCA Board issued a proposed amendment to § 724.1, with a ninety-day public comment period (*See* 54 FR 48112), to incorporate this authorization into the regulation.

### Comments

Nine comments were received. Three comments were received from federal credit unions, three were from state credit union leagues, and two comments were from national credit union trade associations. One commenter was a brokers' trade association.

### Discussion

All of the commenters supported the proposed amendment, agreeing that it clarifies the regulatory authority for FUCs to offer and serve as trustees or custodians of self-directed IRAs and Keogh accounts.

Two commenters suggested adding additional provisions of IRPS 85–1 to the final amendment. They recommended that the final amendment state that FCU's offering self-directed IRAs and Keogh accounts may act in a custodial capacity only and may not exercise investment discretion. They also suggested that the final amendment clarify that the portion of a self-directed IRA or Keogh account that is not invested in shares or share certificates of the FCU is not insured by the National Credit Union Share Insurance Fund. The Board agrees and has incorporated these conditions by adding a new § 724.2 to part 724. Old § 724.2 which addresses appointment of successor trustees and custodian is redesignated as § 724.3.

One commenter recommended that NCUA cross-reference part 724 with IRPS 85–1. Such cross-reference is unnecessary since the Board has incorporated provisions of IRPS 85–1 into part 724. Another commenter suggested that additional language should be added to direct FCUs to comply with the Employee Retirement Act of 1974 and demonstrate such compliance when the FCU acts as trustee or custodian for account funds invested in assets other than share or share certificate accounts. The NCUA Board believes that this suggestion is not necessary since compliance with other laws is already mentioned in § 724.1.

### Regulatory Procedures

*Regulatory Flexibility Act*

This final amendment simply clarifies an FCU's existing authority. Since this is not a new policy, the Board has determined and certifies that this rule will not have a significant economic impact on a substantial number of small credit unions. Accordingly, the NCUA Board has determined that a Regulatory Flexibility Analysis is not required.

*Executive Order 12612*

This regulation only applies to federally chartered credit unions. The amendment to the regulation has no effect on the regulation of state-chartered credit unions.

### List of Subjects in 12 CFR Part 724

Credit unions, Pensions, Reporting and recordkeeping requirements, Trusts and trustees.

By the National Credit Union Administration Board on July 17, 1990.

Hattie M. Ulan,

*Acting Secretary of the Board.*

Accordingly, NCUA amends its regulations as follows:

1. Part 724 is revised to read as follows:

## PART 724—TRUSTEES AND CUSTODIANS OF PENSION PLANS

Sec.
724.1 Federal credit unions acting as trustees and custodians of pension plans.
724.2 Self-directed retirement plans.
724.3 Appointment of successor trustee or custodian.

Authority: 12 U.S.C. 1766 and 1787.

### § 724.1 Federal credit unions acting as trustees and custodians of pension plans.

A federal credit union is authorized to act as trustee or custodian, and may receive reasonable compensation for so acting, under any written trust instrument or custodial agreement created or organized in the United States and forming part of a pension plan which qualifies or qualified for specific tax treatment under section 401(d) or 408 of the Internal Revenue Code, for its members or groups of its members, provided the funds of such plans are invested in share accounts or share certificate accounts of the federal credit union. All funds held in a trustee or custodial capacity must be maintained in accordance with applicable laws and rules and regulations as may be promulgated by the Secretary of Labor, the Secretary of the Treasury, or any other authority exercising jurisdiction over such trust or custodial accounts. The federal credit union shall maintain individual records for each participant which show in detail all transactions relating to the funds of each participant or beneficiary.

### § 724.2 Self-directed retirement plans.

A Federal credit union may act as trustee or custodian of individual retirement plans of its members established pursuant to section 401(d) or 408 of the Internal Revenue Code, and may facilitate transfers of plan funds to assets other than share and share certificates of the credit union, provided the conditions of § 724.1 and the following additional conditions are met:

(a) All contributions of funds are initially made to a share or share certificate account in the Federal credit union;

(b) Any subsequent transfer of funds to other assets is solely at the direction of the member and the Federal credit union exercises no investment discretion and provides no investment advice with respect to plan assets (i.e., the credit union performs only custodial duties); and

(c) The member is clearly notified of the fact that National Credit Union Share Insurance Fund coverage is limited to funds held in share or share certificate accounts of NCUSIF-insured credit unions.

### § 724.3 Appointment of successor trustee or custodian.

Any plan operated pursuant to this part shall provide for the appointment of a successor trustee or custodian by a person, committee, corporation or organization other than the Federal credit union or any person acting in his capacity as a director, employee or agent of the Federal credit union upon notice from the Federal credit union or the Board that the Federal credit union is unwilling or unable to continue to act as trustee or custodian.

[FR Doc. 90–17240 Filed 7–24–90; 8:45 am]
BILLING CODE 7535–01–M

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## 12 CFR Part 749

## Records Preservation Program

**AGENCY:** National Credit Union Administration ("NCUA").

**ACTION:** Final rule.

**SUMMARY:** Part 749 of the NCUA Regulations (12 CFR part 749) sets forth requirements for records preservation for federally insured credit unions. The National Credit Union Administration Board, as part of its periodic review of its regulations, issued a proposed rule soliciting public comments on part 749 in November 1989. (*See* 54 FR 48271, November 22, 1989.) After evaluating the comments and further reviewing the rule, the Board has adopted two minor changes. First, the substitution of "financial officer" for "treasurer" conforms the rule to a change in the Federal Credit Union Act and second, a requirement for storage of locator information for each member clarifies that a credit union must be able to locate its members in the event of a disaster.

**EFFECTIVE DATE:** August 24, 1990.

**ADDRESSES:** National Credit Union Administration, 1776 G Street NW., Washington, DC 20456.

**FOR FURTHER INFORMATION CONTACT:** Hattie M. Ulan, Associate General Counsel, or Margaret R. Suuberg, Staff Attorney, Office of General Counsel, at the above address or telephone: 202/682–9630.

**SUPPLEMENTARY INFORMATION:**

### Paperwork Reduction Act

The current control number for part 749 is 3133–0032. No change in the collection requirements is suggested.

### Background and Comments

Part 749 establishes minimum requirements for records preservation by federally insured credit unions. The rule requires off-site storage of duplicate vital records in order to provide financial and other necessary data for reconstruction purposes in the event of a catastrophe. The last major revision of part 749 was made in 1981 (*see* 46 FR 17188 (March 18, 1981)), at which time the regulation was substantially deregulated. In 1982, the NCUA Board discontinued its program of NCUA-financed off-site storage of credit union vital records. (*See* 47 FR 8006 (February 24, 1982).) No other changes have occurred. Section 5190 of the Accounting Manual for Federal Credit Unions (NCUA Publication 8022) also addresses records preservation and retention, and provides additional guidance to credit unions.

In November 1989, the NCUA Board issued one proposed modification to part 749 and requested comment on any other needed modifications. (*See* 54 FR 48271, November 22, 1989.) In its earlier form, part 749 assigned the treasurer of the credit union the responsibility for storing duplicative records at a vital records storage center (*see* 12 CFR 749.1). The proposed rule substituted "financial officer" for "treasurer," in order to conform the rule to a change in section 112 of the Federal Credit Union Act (12 U.S.C. 1761a).

Seven comments were received on the proposed rule. Two comments came from national credit union trade associations; three from state credit union leagues; and two from federal credit unions. All of the commenters supported the substitution of "financial officer" for "treasurer," and it has been adopted in the final rule.

Two commenters requested that NCUA address additional issues or make additional changes to the regulation.

One state credit union league expressed concern that a state-chartered, federally insured credit union might interpret the term "financial officer" to mean "treasurer" although the treasurer might not be the officer charged by the credit union with maintaining custody of the credit union's records. This commenter suggested that the words, "or, in the case of a federally insured state credit union, the officer having custody of the records" be added after the words "financial officer." The Board considers the addition of the suggested language unnecessary. It should be understood that the term "financial officer" refers to the officer responsible for the financial records of the credit union.

Another state credit union league suggested that the regulation require credit unions to include, in the vital

records stored, a list of outside vendors that transact business with the credit union. Again, the Board finds the suggested revision unnecessary. The regulation currently sets forth the required minimum for records to be stored; credit unions may store additional records.

One change has been made as a result of further staff review of the proposal. Section 749.2(a)(3) has been added, requiring storage of locator information for each member, such as address and telephone number, unless the board of directors determines that such information is readily available from another source. The Board believes that most credit unions already store locator information, but considers the change advisable in order to clarify that a credit union must be able to locate its members in the event of a disaster.

**Regulatory Procedures**

*Regulatory Flexibility Analysis*

The NCUA Board certifies that this rule will not have a significant impact on a substantial number of small credit unions. The rule makes no substantive changes.

*Executive Order 12612*

This regulation currently applies to all federally insured credit unions. The final rule makes no change in its application. The NCUA Board continues to believe that this regulation should apply to state-chartered, federally insured credit unions. All federally insured credit unions must maintain duplicative vital records in the event that original records are destroyed.

**List of Subjects in 12 CFR Part 749**

Archives and records, Credit unions, Reporting and recordkeeping requirements.

By the National Credit Union Administration Board on July 17, 1990.

**Hattie M. Ulan,**

*Acting Secretary of the Board.*

Accordingly, NCUA amends its regulations as follows:

1. Part 749 is revised to read as follows:

## PART 749—RECORDS PRESERVATION PROGRAM

Sec.
749.0 Records preservation.
749.1 Implementation.
749.2 Vital records to be stored.

**Authority:** 12 U.S.C. 1766, 1783 and 1789.

**§ 749.0 Records preservation.**

All federally insured credit unions must maintain a records preservation program to identify, store and reconstruct vital records in the event that the credit union's records are destroyed.

**§ 749.1 Implementation.**

The financial officer of the credit union is responsible for storing duplicate vital records at a vital records center. This responsibility may be delegated.

(a) The Records Preservation Program must be operational within 6 months after the credit union's insurance certificate is issued.

(b) The vital records center is defined as any location far enough from the credit union's offices to avoid the simultaneous loss of both sets of records in the event of disaster.

(c) Records must be stored every 3 months, within 30 days after the end of the 3-month period. Previously stored records may be destroyed when the current records are stored.

(d) A records preservation log will be maintained showing what records were stored, where the records were stored, when the records were stored, and who sent the records for storage.

(e) Stored records may be in any format which can be used to reconstruct the credit union's records. Formats include paper originals, machine copies, micro film or fiche, magnetic tape, etc.

(f) Credit unions which have some or all of their records maintained by an off-site data processor are considered to be in compliance for the storage of those records.

**§ 749.2 Vital records to be stored.**

At least the following records, as of the most recent month-end, must be stored:

(a) A list of share and/or deposit and loan balances for each member's account.

(1) The list of balances will be individually identified by a name or number.

(2) Multiple loans of one account will be listed separately.

(3) Information sufficient to enable the credit union to locate each member, such as address and telephone number, shall also be included, unless the board of directors determines that such information is readily available from another source.

(b) A financial report which lists all of the credit union's asset and liability accounts.

(c) A list of the credit union's banks, insurance policies, and investments. This information may be marked "permanent" and be updated only when changes are made.

[FR Doc. 90-17241 Filed 7-24-90; 8:45 am]

BILLING CODE 7535-01-M

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

### 21 CFR Part 73

[Docket No. 89C-0203]

## Listing of Color Additives for Coloring Contact Lenses; 1,4-Bis[4-(2-Methacryloxyethyl) Phenylamino] Anthraquinone

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Final rule.

**SUMMARY:** The Food and Drug Administration (FDA) is amending the color additive regulations to provide for the safe use of 1,4-bis[4-(2-methacryloxyethyl)phenylamino] anthraquinone for coloring contact lenses. This action is in response to a petition filed by Bausch & Lomb, Inc.

**DATES:** Effective August 27, 1990, except as to any provisions that may be stayed by the filing of proper objections; written objections and requests for a hearing by August 24, 1990.

**ADDRESSES:** Written objections may be sent to the Dockets Management Branch (HFA-305), Food and Drug Administration, rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.

**FOR FURTHER INFORMATION CONTACT:** Sandra L. Varner, Center for Food Safety and Applied Nutrition (HFF-335), Food and Drug Administration, 200 C St. SW., Washington, DC 20204, 202-472-5690.

**SUPPLEMENTARY INFORMATION:**

### I. Introduction

In a notice published in the Federal Register of July 20, 1989 (54 FR 30469), FDA announced that a color additive petition (CAP 9C0215) had been filed by Bausch & Lomb, Inc., 1400 North Goodman St., Rochester, NY 14692-0450, proposing that 21 CFR part 73 of the color additive regulations be amended to provide for the safe use of 1,4-bis[4-(2-methacryloxyethyl)phenylamino] anthraquinone to color contact lenses. The petition was filed under section 706 of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 376).

### II. Applicability of the Act

With the passage of the Medical Device Amendments of 1976 (Pub. L. 94-295), Congress mandated the listing of color additives for use in medical devices when the color additive comes into direct contact with the body for a significant period of time (21 U.S.C. 376(a)). The use of 1,4-bis[4-(2-

methacryloxyethyl)phenylamino] anthraquinone as a color additive in contact lenses is subject to this listng requirement. The color additive is added to contact lenses in such a way that at least some of the color additive will come into contact with the eyes when the lenses are worn. In addition, the lenses are intended to be placed on the eyes for several hours a day, each day, for 1 year or more. Thus, the color additive will be in direct contact with the body for a significant period of time. Consequently, the use of the color additive currently before the agency is subject to the statutory listing requirement.

### III. The Color Additive

When used to color contact lenses, the color additive 1,4-bis[4-(2-methacryloxyethyl)phenylamino] anthraquinone (CAS Reg. No. 121888-69-5) is copolymerized with hydroxyethyl methacrylate monomer. The color additive covalently bonds to the hydroxyethyl methacrylate monomer through two methacrylate groups. The resulting copolymeric product is formed into a contact lens.

### IV. Safety Evaluation

FDA concludes from the data submitted in the petition and from other relevant information that the upper limit of exposure to 1,4-bis[4-(2-methacryloxyethyl)phenylamino] anthraquinone from its use in contact lenses is 280 nanograms per person per day. The agency-calculated upper limit was based on two factors. First, FDA has established a maximum practical use level of 50 micrograms per lens for the color additive in a contact lens (Ref. 1). Second, the agency made two worst-case assumptions: (1) that a user will replace lenses tinted with 1,4-bis[4-(2-methacryloxyethyl)phenylamino] anthraquinone once each year with a new pair of lenses tinted with the color additive at the maximum use level; and (2) that 100 percent of the color additive will migrate from the lenses into the eyes over the 1-year period. Because these assumptions are worst-case estimates, exposure to 1,4-bis[4-(2-methacryloxyethyl)phenylamino] anthraquinone from its use for coloring contact lenses is likely to be far less than 280 nanograms per person per day (Ref. 2).

To establish that 1,4-bis[4-(2-methacryloxyethyl)phenylamino] anthraquinone is safe for use in coloring contact lenses, the petitioner conducted toxicity studies. The studies included three in vitro cytotoxicity studies on the dye, two by the agar overlay method and one by the direct-contact method. The dye was found to be noncytotoxic when tested at a concentration as high as 1,810 micrograms per milliliter by the direct-contact method using mouse fibroblast cells. A 21-day ocular irritation study in rabbits using contact lenses and a guinea pig maximization (Kligman) study using lens extracts were also conducted. These studies demonstrated no evidence of ocular irritation or delayed contact sensitization in the test animals.

To relate the 1,810 micrograms-per-milliliter no-effect level established in the direct-contact cytotoxicity study for the color additive to the 280 nanograms per-person-per-day exposure from wearing the lenses, the agency calculated the maximum concentration level of the color additive in each eye that would result from the use of the contact lens. The agency estimated that the daily exposure to the color additive in each eye would be 140 nanograms and that this would be diluted by the maximum daily tear film of 1.2 milliliters [1] produced in each eye. This contentration is equal to a maximum daily concentration in the tear flow of the eye of 120 nanograms per milliliter. When this concentration is compared with the 1,800 micrograms per milliliter no-effect level, this represents more than a 15,000 fold safety factor.

Based upon the available toxicity data, the small amount of the color additive incorporated into the contact lenses, and the agency's exposure calculation, FDA finds that 1,4-bis[4-(2-methacryloxyethyl)phenylamino] anthraquinone is safe for use as a color additive in contact lenses. FDA further concludes that the safety margin is sufficiently large that a limitation on the amount of the color additive that may be present in the lens is not required beyond the limitation that only the amount necessary to accomplish the intended technical effect may be used. Batch certification is not required to ensure safety.

### V. Conclusions

Based on data contained in the petition and other relevant material, FDA concludes that there is a reasonable certainty that no harm will result from the petitioned use of 1,4-bis[4-(2-methacryloxyethyl) phenylamino]anthraquinone as a color additive in contact lenses, and that the color additive is safe and suitable for its intended use.

### VI. Inspection of Documents

In accordance with 21 CFR 75.15, the petition and the documents that FDA considered and relied upon in reaching its decision to approve the petition are available for inspection at the Center for Food Safety and Applied Nutrition by appointment with the information contact person listed above. As provided in 21 CFR 71.15, the agency will delete from the documents any materials that are not available for public disclosure before making the documents available for inspection.

### VII. Environmental Impact

The agency has carefully considered the potential environmental effects of this action. FDA has concluded that the action will not have a significant impact on the human environment and that an environmental impact statement is not required. The agency's finding of no significant impact and the evidence supporting that finding, contained in an environmental assessment, may be seen in the Dockets Management Branch (address above) between 9 a.m. and 4 p.m., Monday through Friday.

### VIII. References

The following references have been placed on display in the Dockets Management Branch (address above) and may be seen by interested persons between 9 a.m. and 4 p.m., Monday through Friday.

1. Memorandum dated February 19, 1985, from the Food Additive Chemistry Evaluation Branch to the Petitions Control Branch, color additives in contact lenses.

2. Memorandum dated May 17, 1989, from the Food and Color Additives Review Section to the Indirect Additives Branch, CAP 9C0215—Bausch & Lomb; 1,4-bis[4-(2-methacryloxyethyl) phenylamino]anthraquinone as a (color additive) comonomer in poly(hydroxyethyl methacrylate) contact lenses; submission dated December 9, 1988.

3. Moses and Hart, Eds., "Adler's Physiology of the Eye," 8th Ed., p. 22, C. V. Mosby Co., St. Louis, 1987.

4. Mishima, S., et. al., "Determination of Tear Volume and Tear Flow," *Investigative Ophthalmology and Visual Science*, 5:264, 1966.

### IX. Objections

Any person who will be adversely affected by this regulation may at any time on or before August 24, 1990, file with the Dockets Management Branch (address above) written objections thereto. Each objection shall be separately numbered, and each numbered objection shall specify with

[1] The agency has previously estimated the daily tear film volume to be 1.58 milliliters, calculated by taking 70 microliters of tear production per hour and multiplying this over 24 hours of lens wear. A careful review of the literature (Refs. 3 and 4) indicates that 50 microliters of tear is produced per hour, and thus, 1.2 milliliters is a better approximation of daily tear film volume.

particularity the provisions of the regulation to which objection is made and the grounds for the objection. Each numbered objection on which a hearing is requested shall specifically so state. Failure to request a hearing for any particular objection shall constitute a waiver of the right to a hearing on that objection. Each numbered objection for which a hearing is requested shall include a detailed description and analysis of the specific factual information intended to be presented in support of the objection in the event that a hearing is held. Failure to include such a description and analysis for any particular objection shall constitute a waiver of the right to a hearing on the objection. Three copies of all documents shall be submitted and shall be identified with the docket number found in brackets in the heading of this document. Any objections received in response to the regulation may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday. FDA will publish a notice of the objections that the agency has received, or the lack thereof, in the **Federal Register**.

**List of Subjects in 21 CFR Part 73**

Color additives, Cosmetics, Drugs, Medical devices.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs, 21 CFR part 73 is amended as follows:

## PART 73—LISTING OF COLOR ADDITIVES EXEMPT FROM CERTIFICATION

1. The authority citation for 21 CFR part 73 continues to read as follows:

**Authority:** Secs. 201, 401, 402, 403, 409, 501, 502, 505, 601, 602, 701, 706 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321, 341, 342, 343, 348, 351, 352, 355, 361, 362, 371, 376).

2. New § 73.3106 is added to subpart D to read as follows:

**§ 73.3106 1,4-bis[4-(2-methacryloxyethyl) phenylamino]anthraquinone.**

(a) *Identity.* The color additive is 1,4-bis[4-(2-methacryloxyethyl) phenylamino]anthraquinone (CAS Reg. No. 121888-69-5). The color additive is copolymerized with hydroxyethyl methacrylate monomer to form the lens material.

(b) *Uses and restrictions.* (1) The color additive listed in paragraph (a) of this section may be used in contact lenses in amounts not to exceed the minimum reasonably required to accomplish the intended coloring effect.

(2) Authorization and compliance with this use shall not be construed as waiving any of the requirements of sections 510(k), 515, and 520(g) of the Federal Food, Drug, and Cosmetic Act (the act) with respect to the contact lens in which the color additive is used.

(c) *Labeling.* The label of the color additive shall conform to the requirements of § 70.25 of this chapter.

(d) *Exemption from certification.* Certification of this color additive is not necessary for the protection of the public health, and therefore the color additive is exempt from the certification requirements of section 706(c) of the act.

Dated: July 18, 1990.

**Ronald G. Chesemore,**

*Associate Commissioner for Regulatory Affairs.*

[FR Doc. 90-17312 Filed 7-24-90; 8:45 am]

BILLING CODE 4160-01-M

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**21 CFR Parts 510 and 558**

## Animal Drugs, Feeds, and Related Products; Tylosin, Tylosin/Sulfamethazine, Pyrantel Tartrate

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Final rule.

**SUMMARY:** The Food and Drug Administration (FDA) is removing those portions of the animal drug regulations which reflect approval of several new animal drug applications (NADA's), one held by The Eugene Ingmand Co. for the use of a tylosin Type A medicated article; two held by Kay Dee Feed Co., one for the use of a tylosin Type A medicated article, and another for the use of a tylosin-sulfamethazine Type A medicated article; and one held by Good-Life Division of Central Soya Co., Inc., for the use of a pyrantel tartrate Type A medicated article. In a notice published elsewhere in this issue of the **Federal Register**, FDA is withdrawing approval of the NADA's.

**EFFECTIVE DATE:** August 6, 1990.

**FOR FURTHER INFORMATION CONTACT:** Mohammad I. Sharar, Center for Veterinary Medicine (HFV-216), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-443-4093.

**SUPPLEMENTARY INFORMATION:** In a notice published elsewhere in this issue of the **Federal Register**, FDA is withdrawing approval of: The Eugene Ingmand Co.'s NADA 91-465 which provides for the use of a tylosin Type A medicated article to make a Type C medicated swine feed; Kay Dee Feed Co.'s NADA 111-814 which provides for the use of a tylosin Type A medicated article to make a Type C chicken, swine, and beef cattle feed; Kay Dee Feed Co.'s NADA 128-255 which provides for the use of a tylosin-sulfamethazine Type A medicated article to make a Type C swine feed; and Good-Life Division of Central Soya Co., Inc.'s NADA 134-286 which provides for use of a pyrantel tartrate Type A medicated article to make a Type C swine feed. This document amends 21 CFR 558.485(a)(14), 558.625 (b)(49) and (b)(56), and 558.630(b)(8) to reflect the withdrawal of approval of these NADA's.

Also, since The Eugene Ingmand Co. and Kay Dee Feed Co. are no longer sponsors of any approved NADA's, 21 CFR 510.600 (c)(1) and (c)(2) are amended to remove the firms' entries from the list of sponsors of approved applications.

**List of Subjects**

*21 CFR Part 510*

Administrative practice and procedure, Animal drugs, Labeling, Reporting and recordkeeping requirements.

*21 CFR Part 558*

Animal drugs, Animal feeds.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs and redelegated to the Center for Veterinary Medicine, 21 CFR parts 510 and 558 are amended as follows:

## PART 510—NEW ANIMAL DRUGS

1. The authority citation for 21 CFR part 510 continues to read as follows:

**Authority:** Secs. 201, 301, 501, 502, 503, 512, 701, 706 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321, 331, 351, 352, 353, 360b, 371, 376).

**§ 510.600 [Amended]**

2. Section 510.600 Names, addresses, and drug labeler codes of sponsors of approved applications is amended in the table in paragraph (c)(1) by removing the entries "The Eugene Ingmand Co." and "Kay Dee Feed Co.", and in the table in paragraph (c)(2) by removing the entries "021533" and "026848", respectively.

## PART 558—NEW ANIMAL DRUGS FOR USE IN ANIMAL FEEDS

3. The authority citation for 21 CFR part 558 continues to read as follows:

**Authority:** Secs. 512, 701 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360b, 371).

**§ 558.485 [Amended]**

4. Section 558.485 Pyrantel tartrate is amended by removing and reserving paragraph (a)(14).

**§ 558.625 [Amended]**

5. Section 558.625 Tylosin is amended by removing and reserving paragraphs (b)(49) and (b)(56).

**§ 558.630 [Amended]**

6. Section 558.630 *Tylosin and sulfamethazine* is amended in paragraph (b)(8) by removing the number", 026848".

Dated: July 12, 1990.

**Gerald B. Guest,**

*Director, Center for Veterinary Medicine.*

[FR Doc. 90-17314 Filed 7-24-90; 8:45 am]

BILLING CODE 4160-01-M

## 21 CFR Part 175

**[Docket No. 87F-0327]**

## Indirect Food Additives: Adhesives and Components of Coatings

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Final rule.

**SUMMARY:** The Food and Drug Administration (FDA) is amending the food additive regulations to provide for the safe use of ethylene-acrylic acid-carbon monoxide copolymer as an adhesive in multilayer structures intended for use in contact with food. This action is in response to a petition filed by The Dow Chemical Co.

**DATES:** Effective July 25, 1990; written objections and requests for a hearing by August 24, 1990.

**ADDRESSES:** Written objections to the Dockets Management Branch (HFA-305), Food and Drug Administration, rm. 4-62, 5600 Fishers Lane, Rockville, MD 20857.

**FOR FURTHER INFORMATION CONTACT:** Julius Smith, Center for Food Safety and Applied Nutrition (HFF-335), Food and Drug Administration, 200 C St. SW., Washington, DC 20204, 202-472-5690.

**SUPPLEMENTARY INFORMATION:** In a notice published in the Federal Register of October 29, 1987 (52 FR 41628), FDA announced that a food additive petition (FAP 7B4037) had been filed by The Dow Chemical Co., 1803 Bldg., Door 7, Midland, MI 48674, proposing that § 175.105 Adhesives (21 CFR 175.105) be amended to provide for the safe use of ethylene-acrylic acid-carbon monoxide copolymer as an adhesive in multilayer structures intended for use in contact with food.

FDA has evaluated data in the petition and other relevant material. The agency concludes that these data establish the safe use of the food additive, ethylene-acrylic acid-carbon monoxide copolymer, and that § 175.105 (21 CFR 175.105) should be amended by alphabetically adding it as a new entry in the table in paragraph (c)(5).

In accordance with § 171.1(h) (21 CFR 171.1(h)), the petition and the documents that FDA considered and relied upon in reaching its decision to approve the petition are available for inspection at the Center for Food Safety and Applied Nutrition by appointment with the information contact person listed above. As provided in 21 CFR 171.1(h), the agency will delete from the documents any materials that are not available for public disclosure before making the documents available for inspection.

The agency has carefully considered the potential environmental effects of this action. FDA has concluded that the action will not have a significant impact on the human environment, and that an environmental impact statement is not required. The agency's finding of no significant impact and the evidence supporting that finding, contained in an environmental assessment, may be seen in the Dockets Management Branch (address above) between 9 a.m. and 4 p.m., Monday through Friday.

Any person who will be adversely affected by this regulation may at any time on or before August 24, 1990, file with the Dockets Mangement Branch (address above) written objections thereto. Each objection shall be separately numbered, and each numbered objection shall specify with particularity the provisions of the regulation to which objection is made and the grounds for the objection. Each numbered objection on which a hearing is requested shall specifically so state. Failure to request a hearing for any particular objection shall constitute a waiver of the right to a hearing on the objection. Each numbered objection for which a hearing is requested shall include a detailed description and analysis of the specific factual information intended to be presented in support of the objection in the event that a hearing is held. Failure to include such a description and analysis for any particular objection shall constitute a waiver of the right to a hearing on the objection. Three copies of all documents shall be submitted and shall be identified with the docket number found in brackets in the heading of this document. Any objections received in response to the regulation may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday.

**List of Subjects in 21 CFR Part 175**

Adhesives, Food additives, Food packaging.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs and redelegated to the Director, Center for Food Safety and Applied Nutrition, 21 CFR part 175 is amended as follows:

### PART 175—INDIRECT FOOD ADDITIVES: ADHESIVES AND COMPONENTS OF COATINGS

1. The authority citation for 21 CFR part 175 continues to read as follows:

**Authority** Secs. 201, 402, 409, 706 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321, 342, 348, 376).

2. Section 175.105 is amended in paragraph (c)(5) by alphabetically adding a new entry in the table to read as follows:

**§ 175.105 Adhesives.**

* * * * *

(c) * * *

(5) * * *

| Substances | Limitations |
|---|---|
| * * * * * | |
| Ethylene-acrylic acid-carbon monoxide copolymer (CAS Reg. No. 97756-27-9). | |
| * * * * * | |

Dated: July 12, 1990.

**Fred R. Shank,**

*Director, Center for Food Safety and Applied Nutrition.*

[FR Doc. 90-17316 Filed 7-24-90; 8:45 am]

BILLING CODE 4160-01-M

## 21 CFR Part 178

**[Docket No. 89F-0157]**

## Indirect Food Additives; Adjuvants, Production Aids, and Sanitizers

**AGENCY:** Food and Drug Administration; HHS.

**ACTION:** Final rule.

**SUMMARY:** The Food and Drug Administration (FDA) is amending the food additive regulations to provide for the safe use of 2-methyl-4,6-bis[(octylthio)methyl]phenol as a stabilizer for polymers used as components of adhesives, gaskets, cements, repeat-use rubber articles, and paper in contact with food. This action is in response to a petition filed by Ciba-Geigy Corp.

**DATES:** Effective July 25, 1990; written objections and requests for a hearing by August 24, 1990.

**ADDRESSES:** Written objections to the Dockets Management Branch (HFA–305), Food and Drug Administration, rm. 4–62, 5600 Fishers Lane, Rockville, MD 20857.

**FOR FURTHER INFORMATION CONTACT:** Julius Smith, Center for Food Safety and Applied Nutrition (HFF–335), Food and Drug Administration, 200 C St. SW., Washington, DC 20204, 202–472–5690.

**SUPPLEMENTARY INFORMATION:** In a notice published in the **Federal Register** of June 1, 1989 (54 FR 23540), FDA announced that a food additive petition (FAP 9B4144) had been filed by Ciba Geigy Corp., Seven Skyline Dr., Hawthorne, NY 10532–2188, proposing that § 178.2010 *Antioxidants and/or stabilizers for polymers* (21 CFR 178.2010) be amended to provide for the safe use of 2-methyl-4,6-bis[(octylthio)methyl]phenol as a stabilizer for polymers used as adhesives, gaskets, cements, repeat-use rubber articles, and paper additives in contact with food.

FDA has evaluated data in the petition and other relevant material. The agency concludes that the proposed food additive 2-methyl-4,6-bis[(ocylthio)methyl]phenol is safe, and that the regulations should be amended by alphabetically adding a new entry in the table in paragraph (b) of § 178.2010.

In accordance with § 171.1(h) (21 CFR 171.1(h)), the petition and the documents that FDA considered and relied upon in reaching its decision to approve the petition are available for inspection at the Center for Food Safety and Applied Nutrition by appointment with the information contact person listed above. As provided in 21 CFR 171.1(h), the agency will delete from the documents any materials that are not available for public disclosure before making the documents available for inspection.

The agency has carefully considered the potential environmental effects of this action. FDA has concluded that the action will not have a significant impact on the human environment, and that an environmental impact statement is not required. The agency's finding of no significant impact and the evidence supporting that finding, contained in an environmental assessment, may be seen in the Dockets Management Branch (address above) between 9 a.m. and 4 p.m., Monday through Friday.

Any person who will be adversely affected by this regulation may at any time on or before August 24, 1990, file with the Dockets Management Branch (address above) written objections thereto. Each objection shall be separately numbered, and each numbered objection shall specify with particularity the provisions of the regulation to which objection is made and the grounds for the objection. Each numbered objection on which a hearing is requested shall specifically so state. Failure to request a hearing for any particular objection shall constitute a waiver of the right to a hearing on that objection. Each numbered objection for which a hearing is requested shall include a detailed description and analysis of the specific factual information intended to be presented in support of the objection in the event that a hearing is held. Failure to include such a description and analysis for any particular objection shall constitute a waiver of the right to a hearing on the objection. Three copies of all documents shall be submitted and shall be identified with the docket number found in brackets in the heading of this document. Any objections received in response to the regulation may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday.

**List of Subjects in 21 CFR Part 178**

Food additives, Food packaging.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs and redelegated to the Director, Center for Food Safety and Applied Nutrition, 21 CFR part 178 is amended as follows:

## PART 178—INDIRECT FOOD ADDITIVES: ADJUVANTS, PRODUCTION AIDS, AND SANITIZERS

1. The authority citation for 21 CFR part 178 continues to read as follows:

**Authority:** Secs. 201, 402, 409, 706 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321, 342, 348, 376).

2. Section 178.2010 is amended in the table in paragraph (b) by alphabetically adding a new entry under the headings "Substances" and "Limitations" to read as follows:

**§ 178.2010 Antioxidants and/or stabilizers for polymers.**

* * * * *

(b) * * *

| Substances | Limitations |
|---|---|
| 2-methyl-4,6-bis-[(octylthio)methyl] phenol (CAS Reg. No. 110553–27–0) | For use only:<br>1. In adhesives complying with § 175.105 of this chapter.<br>2. At levels not to exceed 0.25 percent by weight of can-end cements and side-seam cements complying with § 175.300(b)(3)(xxxi) and (xxxii) of this chapter.<br>3. At levels not to exceed 1 percent by weight of pressure-sensitive adhesives complying with § 175.125 of this chapter, petroleum alicyclic hydrocarbon resins complying with § 176.170 of this chapter, resins and polymers complying with § 176.180 of this chapter, and closures with sealing gaskets complying with § 177.1210 of this chapter.<br>4. At levels not to exceed 0.5 percent by weight of finished rubber products complying with § 177.2600 of this chapter. |

Dated: July 12, 1990.

**Fred R. Shank,**

*Director, Center for Food Safety and Applied Nutrition.*

[FR Doc. 90–17317 Filed 7–24–90; 8:45 am]

BILLING CODE 4160–01–M

## 21 CFR Part 178

**[Docket No. 88F–0442]**

## Indirect Food Additives: Adjuvants, Production Aids, and Sanitizers

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Final rule.

**SUMMARY:** The Food and Drug Administration (FDA) is amending the food additive regulations to provide for the safe use of *N*-methyl-*N*-(1-oxo-9-octadecenyl) glycine as a corrosion inhibitor for lubricants with incidental food contact. This action is in response to a petition filed by Ciba-Geigy Corp.

**DATES:** Effective July 25, 1990; written objections and requests for a hearing by August 24, 1990.

**ADDRESSES:** Written objections may be sent to the Dockets Management Branch (HFA–305), Food and Drug Administration, rm. 4–62, 5600 Fishers Lane, Rockville, MD 20857.

**FOR FURTHER INFORMATION CONTACT:** Thomas C. Brown, Center for Food Safety and Applied Nutrition (HFF–335), Food and Drug Administration, 200 C St. SW., Washington, DC 20204, 202–472–5690.

**SUPPLEMENTARY INFORMATION:** In a notice published in the **Federal Register** of January 26, 1989 (54 FR 3852), FDA announced that a food additive petition (FAP 9B4124) had been filed by Ciba-Geigy Corp., Three Skyline Dr., Hawthorne, NY 10532, proposing that § 178.3570 Lubricants with incidental food contact (21 CFR 178.3570) be amended to provide for the safe use of *N*-methyl-*N*-(1-oxo-9-octadecenyl) glycine as a corrosion inhibitor for lubricants with incidental food contact.

## I. The Additive

In its evaluation of the safety of this additive, FDA reviewed the safety of both the additive and the starting materials used to manufacture the additive. The agency is not aware of any data that show *N*-methyl-*N*-(1-oxo-9-octadecenyl) glycine to be a cancer-causing chemical. However, nitrilotriacetic acid (NTA), which could be present as an impurity in the additive, has been shown to cause cancer in test animals. Residual amounts of reactants and byproducts, such as NTA, are commonly found as contaminants in chemical products, including food additives.

## II. Prior Action

Under section 409(c)(3)(A) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 348(c)(3)(A)), the so-called "general safety clause" of the statute, a food additive cannot be approved for a particular use unless a fair evaluation of the data available to FDA establishes that the additive is safe for that use. The concept of safety embodied in the Food Additives Amendments of 1958 is explained in the legislative history of the provision: "Safety requires proof of a reasonable certainty that no harm will result from the proposed use of an additive. It does not—and cannot—require proof beyond any possible doubt that no harm will result under any conceivable circumstance." (H. Rept. No. 2284, 85th Cong., 2d Sess. 4 (1958)). This definition of safety has been incorporated into FDA's food additive regulations (21 CFR 170.3(i)). The anticancer or Delaney clause of the Food Additives Amendment (section 409(c)(3)(A) of the act (21 U.S.C. 348(c)(3)(A))) further provides that no food additive shall be deemed to be safe if it is found to induce cancer when ingested by man or animal.

In the past, FDA often refused to approve the use of an additive that contained or was suspected of containing even minor amounts of a carcinogenic chemical. The agency now believes, however, that developments in scientific technology and experience with risk assessment procedures make is possible for FDA to establish the safety of additives that contain carcinogenic impurities but that have not themselves been shown to cause cancer.

In the preamble to the final rule permanently listing the color additive, D&C Green No. 6, published in the **Federal Register** of April 2, 1982 (47 FR 14138), FDA explained the basis for approving the use of a color additive that had not been shown to cause cancer, even though it contains a carcinogenic impurity. Since that decision, FDA has approved the use of other color additives and food additives on the same basis.

The agency now considers the Delaney anticancer clause to be applicable only when the food additive as a whole has been found to cause cancer. An additive that has not been shown to cause cancer, but that contains a carcinogenic impurity, is properly evaluated under the general safety clause of the statute, using risk assessment procedures to determine whether there is a reasonable certainty that no harm will result from the proposed use of the additive.

The agency's position is supported by *Scott* v. *FDA*, 728 F.2d 322 (6th Cir. 1984). That case was a challenge to FDA's decision to approve the use of D&C Green No. 5, which contains a carcinogenic chemical but has itself not been shown to cause cancer. Relying heavily on the reasoning in the agency's decision to list this color additive, the U.S. Court of Appeals for the Sixth Circuit rejected the challenge to FDA's action and affirmed the listing regulation.

## III. Safety of Petitioned Use

FDA estimates that the petitioned use of *N*-methyl-*N*-(1-oxo-9-octadecenyl)glycine will result in extremely low levels of exposure to this additive. The agency calculated the estimated daily intake of the additive based on considerations such as the migration of the additive under the most severe intended use conditions and the types of food-contact articles that may contain this substance. The agency estimated that the daily intake for the additive would not exceed 150 micrograms (μg) per person per day. FDA does not ordinarily consider chronic testing to be necessary to determine the safety of an additive whose use will result in such low exposure levels (Refs. 1 and 2), and has not required such testing here. However, the agency has reviewed available data from acute studies and mutagenicity tests with the additive. No adverse effects were observed in these studies. On the basis of this information and in view of the low level of exposure to the additive, the agency concludes that there is an adequate margin of safety for the proposed use of the additive.

FDA has evaluated the safety of this additive under the general safety clause, considering all available data and using risk assessment procedures to estimate the upper-bound limit of risk presented by the carcinogenic chemical, NTA, which may be present as an impurity in this additive. Based on this evaluation, the agency has concluded that the additive is safe under the proposed conditions of use.

The risk assessment procedures that FDA used in this evaluation are similar to the methods that the agency has used to examine the risk associated with the presence of minor carcinogenic impurities in various other food and color additives that contain carcinogenic impurities (see, e.g., 49 FR 13018 and 13019; April 2, 1984). This risk evaluation of the carcinogenic impurity NTA has two aspects: (1) Assessment of the worst-case exposure to the impurity from the proposed use of the additive; and (2) extrapolation of the risk observed in the animal bioassays to the conditions of probable exposure to humans.

### *A. Exposure to NTA*

Based on the fraction of the daily diet that may be in contact with surfaces containing *N*-methyl-*N*-(1-oxo-9-octadecenyl)glycine and on the level of NTA that may be present in the additive, FDA estimates the hypothetical worst-case exposure to NTA from the petitioned use of this additive to be 0.003 μg per person per day (Ref. 4). The agency used data from carcinogenesis bioassays on NTA, conducted for the National Cancer Institute (NCI) (Ref. 3), to estimate the upper-bound level of lifetime human risk from exposure to this chemical resulting from the proposed use of the additive. The data reported in the NCI report described three Fischer 344 rat and two B6C3F1 mouse chronic bioassays on either NTA or its trisodium salt. The NCI studies provide substantial evidence of the association of urinary tract neoplasia in rats and mice with NTA treatment at the higher dosage levels.

### *B. Risk Assessment*

FDA reviewed the data in the NCI bioassays and other relevant data available in the literature and concluded that the findings of carcinogenicity were

supported by this information on NTA. FDA has concluded that NTA is carcinogenic to rats and mice, producing primarily tumors of the urinary tract including kidney, ureter, and bladder. The agency further concluded that the NTA bioassay provides an appropriate basis on which to calculate an estimate of the upper-bound level of lifetime human cancer risk from potential exposure to NTA resulting from the proposed use of *N*-methyl-*N*-(1-oxo-9-octadecenyl)glycine.

In calculating this risk, the agency used a quantitative risk assessment procedure (linear proportional model) to extrapolate from the dose used in the study with male rats (the most sensitive animals) to the very low doses encountered under the proposed conditions of use. This procedure is not likely to underestimate the actual risk from very low doses and may, in fact, exaggerate it because the extrapolation models used are designed to estimate the maximum risk consistent with the data. For this reason, the estimate can be used with confidence to determine to a reasonable certainty whether any harm will result from the proposed conditions and levels of use of the additive.

Based on a worst-case exposure to NTA of 0.003 μg per person per day, FDA estimates that the upper-bound limit of individual lifetime risk from potential exposure to this carcinogenic impurity from the proposed use of *N*-methyl-*N*-(1-oxo-9-octadecenyl)glycine is $1.4 \times 10^{-11}$ based on the mouse studies, and $6 \times 10^{-12}$ based on the rate studies (Ref. 5).

Because of numerous conservatisms in the exposure estimates, lifetime-averaged individual exposure to NTA is expected to be substantially less than the estimated daily intake, and therefore, the calculated upper-bound risks would be less. Thus, the agency concludes that there is a reasonable certainty of no harm from exposure to NTA that might result from the proposed use of the additive.

*C. Specifications*

The agency has also considered whether specifications are necessary to control the amount of NTA in the food additive. The agency finds that specifications are not necessary for the following reasons: (1) Because of the low levels at which NTA may be expected to remain as an impurity following production of the additive, the agency would not expect this impurity to become a component of food at other than extremely low levels; and (2) the upper-bound limit of lifetime risk from exposure to NTA even under worst-case assumptions, is very low, less than 1.4 in 100 billion.

## IV. Conclusion of Safety

FDA has evaluated the available data and other relevant material and concludes that the proposed use of the additive is safe, and that 21 CFR 178.3570 should be amended in the table in paragraph (a)(3) as set forth below.

In accordance with § 171.1(h) (21 CFR 171.1(h)), the petition and the documents that FDA considered and relied upon in reaching its decision to approve the petition are available for inspection at the Center for Food Safety and Applied Nutrition by appointment with the information contact person listed above. As provided in 21 CFR 171.1(h), the agency will delete from the documents any materials that are not available for public disclosure before making the documents available for inspection.

## V. Environmental Assessment

FDA has carefully considered the potential environmental effects of this action. The agency has concluded that the action will not have a significant impact on the human environment, and that an environmental impact statement is not required. The agency's finding of no significant impact and the evidence supporting that finding, contained in an environmental assessment, may be seen in the Dockets Management Branch (address above) between 9 a.m. and 4 p.m., Monday through Friday.

## VI. References

The following references have been placed on display in the Dockets Management Branch (address above) and may be seen by interested persons between 9 a.m. and 4 p.m., Monday through Friday.

1. Carr, G.M., "Carcinogenicity Testing Programs" in "Food Safety: Where Are We?", Committee on Agriculture, Nutrition, and Forestry, U.S. Senate, p. 59, July 1979.

2. Kokoski, C.J., "Regulatory Food Additive Toxicology," in "Chemical Safety Regulations and Compliance," F. Homburger and J.K. Marquis, Eds., S. Karger, New York, pp. 24–33, 1985.

3. National Cancer Institute Technical Report Series No. 6.

4. Memorandum dated June 23, 1989, from Food and Color Additives Review Section to Indirect Additives Branch, FAP 9B4124—Ciba-Geigy Co., "*N*-methyl-*N*-(1-oxo-9-octadecenyl)glycine as a corrosion inhibitor in lubricants contacting food."

5. Memorandum dated February 16, 1990, report of the Quantitative Risk Assessment Committee. "Upper Bound Risk for the Carcinogenic Impurity Nitrilotriacetic Acid (NTA) in FAP 9B4124-Sarkosyl O-Ciba Geigy Co."

## VII. Objections

Any person who will be adversely affected by this regulation may at any time on or before August 24, 1990 file with the Dockets Management Branch (address above) written objections thereto. Each objection shall be separately numbered, and each numbered objection shall specify with particularity the provisions of the regulation to which objection is made and the grounds for the objection. Each numbered objection on which a hearing is requested shall specifically so state. Failure to request a hearing for any particular objection shall constitute a waiver of the right to a hearing on that objection. Each numbered objection for which a hearing is requested shall include a detailed description and analysis of the specific factual information intended to be presented in support of the objection in the event that a hearing is held. Failure to include such a description and analysis for any particular objection shall constitute a waiver of the right to a hearing on the objection. Three copies of all documents shall be submitted and shall be identified with the docket number found in brackets in the heading of this document. Any objections received in response to the regulation may be seen in the Dockets Management Branch between 9 a.m. and 4 p.m., Monday through Friday.

**List of Subjects in 21 CFR Part 178**

Food additives, Food packaging.

Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs, 21 CFR part 178 is amended as follows:

## PART 178—INDIRECT FOOD ADDITIVES: ADJUVANTS, PRODUCTION AIDS, AND SANITIZERS

1. The authority citation for 21 CFR part 178 continues to read as follows:

**Authority:** Secs. 201, 402, 409, 706 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321, 342, 348, 376).

2. Section 178.3570 is amended in the table in paragraph (a)(3) by alphabetically adding a new entry under the headings "Substances" and "Limitations" to read as follows:

**§ 178.3570 Lubricants with incidental food contact.**

* * * * *

(a) * * *

(3) * * *

| Substances | Limitations |
|---|---|
| * * * | * * * |
| *N*-Methyl-*N*-(*1-oxo-9-octadecenyl*)*glycine* (*CAS Reg. No. 110-25-8*). | For use as a corrosion inhibitor at levels not to exceed 0.5 percent by weight of the lubricant. |
| * * * | * * * |

* * * * *

Dated: July 18, 1990.

**Ronald G. Chesemore,**

*Associate Commissioner for Regulatory Affairs.*

[FR Doc. 90-17313 Filed 7-24-90; 8:45 am]

BILLING CODE 4160-01-M

## DEPARTMENT OF THE INTERIOR

## Office of Surface Mining Reclamation and Enforcement

## 30 CFR Part 935

**[Amdt. No. 36 ]**

## Ohio Regulatory Program

**AGENCY:** Office of Surface Mining Reclamation and Enforcement (OSM), Interior.

**ACTION:** Final rule; approval of amendment.

**SUMMARY:** OSM is announcing the approval of a proposed amendment to the Ohio regulatory program (hereinafter referred to as the Ohio program) approved under the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The amendment modifies Ohio rules concerning release of performance bonds, lands unsuitable petitions, permit reviews, bond release conferences, and design standards for valley and head-of-hollow fills. The purpose of the amendment is to clarify the way Ohio implements its program, to adopt language comparable to the Federal regulations, and to incorporate the additional flexibility afforded by the revised Federal rules.

**EFFECTIVE DATE:** July 25, 1990.

**FOR FURTHER INFORMATION CONTACT:** Ms. Nina Rose Hatfield, Director, Columbus Field Office, Office of Surface Mining Reclamation and Enforcement, Room 202, 2242 South Hamilton Road, Columbus, Ohio 43232; Telephone: (614) 866-0578.

**SUPPLEMENTARY INFORMATION:**

I. Background on the Ohio Program
II. Submission of Amendment
III. Director's Findings
IV. Disposition of Comments
V. Director's Decision
VI. Procedural Determinations

### I. Background on the Ohio Program

On August 16, 1982, the Secretary of the Interior conditionally approved the Ohio program. Information on the general background of the Ohio program submission, including the Secretary's findings, the disposition of comments, and a detailed explanation of the conditions of approval of the Ohio program, can be found in the August 10, 1982, **Federal Register** (47 FR 34688). Subsequent actions concerning the conditions of approval and program amendments are identified at 30 CFR 935.11, 935.12, 935.15, and 935.16.

### II. Submission of Amendment

By letter dated October 20, 1988 (Administrative Record No. OH-1110), Ohio submitted Program Amendment Number 36 to modify the following rules of chapter 1501 of the Ohio Administrative Code (OAC): 13-3-07(B)(8); 13-4-01(B); 13-7-01(A)(6)(c)(ii); 13-7-05 (A)(3), (A)(5)(b)(i), and (B)(2)(e); and 13-9-07(K)(1)(b).

The proposed amendment is the result of a State initiated revision of its rules and is intended to clarify Ohio rules for filing of incremental bond, to adopt language comparable to the Federal regulations for processing of lands unsuitable petitions, coordination of permit review with certain Federal laws, requests for bond release conferences, and design standards for valley and head-of-hollow fills, and to incorporate the additional flexibility afforded by the revised Federal rules.

OSM announced receipt of the proposed amendment in the November 22, 1988, **Federal Register** (53 FR 47225) and, in the same notice, opened the public comment period and provided opportunity for a public hearing on the adequacy of the proposed amendments.

### III. Director's Findings

Set forth below, pursuant to SMCRA and the Federal regulations at 30 CFR 732.17, are the Director's findings concerning the proposed amendment.

*1. OAC 1501:13-3-07 Lands Unsuitable Petitions*

Paragraph OAC 1501:13-3-07(B)(8) of this rule provides the regulatory authority with discretion in the processing of lands unsuitable petitions received after the complete permit application has been filed. The proposed amendment deletes the existing language and adds language substantively identical to the counterpart Federal rule at 30 CFR 764.15(a)(6). The Director finds that the amendment is no less effective than the Federal rules.

*2. OAC 1501:13-4-01 Permit Applications; General Requirements*

This rule concerns the general contents of the requirements for permit applications and, specifically, the coordination with requirements under other laws. The proposed amendment modifies paragraph OAC 1501:13-4-01(B) by adding punctuation, a period and a comma, to the text. The added punctuation corrects omissions that were cited by the Director concerning Ohio Amendment No. 31 in a final rule published in the **Federal Register** on May 27, 1988 (53 FR 19283-86). In that notice, at Finding 4, the Director cited a punctuation error in the Amendment No. 31 which could be misinterpreted as limiting the applicability of the Bald Eagle Protection Act to Federal and Indian lands rather than being applicable to all lands. The Director also stated that the error should be corrected prior to promulgation of the rule, or in a subsequent rulemaking. This amendment corrects those punctuation errors. The Director finds that this provision is substantively identical to and no less effective than the counterpart Federal rule at 30 CFR 773.12.

*3. OAC 1501:13-7-01 Bonding; General Requirements*

Paragraph OAC 1501:13-7-01(A)(6)(c)(ii) of this rule requires the permittee to file, within thirty days after the end of the permit year, a performance bond concurrently with the submittal of the annual map if the number of acres shown as affected on the annual map exceeds the number of acres bonded. The purpose of this amendment is to reflect Ohio's current practice of billing operators for bond on incremental areas that they have not yet affected, but have proposed to be affected as indicated on the annual map.

On February 14, 1989, OSM informed Ohio that the language of the proposed amendment implied that an operator could affect an area and then post the bond at the end of the permit year to cover those acres not previously bonded. The previously approved language requires the permittee to consider the number of acres estimated to be affected when calculating annual bond adjustment, but that language is deleted by the proposed amendment.

Ohio responded to OSM's concern in a letter dated February 24, 1989 (Administrative Record No. OH-1164), and asserted that rule OAC 1501:13-7-01, read in its entirety, makes it clear that operators are not authorized to affect unbonded acreage. The approved

Ohio rules at 1501:13–7–01(A)(2) require that no person shall disturb surface acreage, either by coal mining and reclamation operations conducted on the surface of land or as a result of surface impacts incidental to an underground coal mine, prior to filing with the Chief a performance bond covering the number of acres to be affected. In addition, the approved Ohio rules at 1501:13–7–01(A)(6)(b) requires that with incremental bonding, thirty days before affecting more than the number of acres for which performance bond has been filed with the Chief, the permittee shall file additional performance bond for the number of additional acres to be affected in the permit year. The Federal rules at 30 CFR 800.11(c) require that an operator shall not disturb any surface areas, succeeding increments, or extend any underground shafts, tunnels, or operations prior to acceptance by the regulatory authority of the required performance bond. The Director finds, therefore, that the approved Ohio rules at 1501:13–7–01 are consistent with and no less effective than the Federal rules at 30 CFR 800.11(c) in that the approve Ohio rules require the filing of bond prior to the disturbance of any surface acreage. The Director also finds that the proposed rule at 1501:13–7–01(A)(6)(c)(ii), which requires the permittee to file performance bond concurrently with the submittal of the annual maps, renders the approved Ohio rules at 1501:13–7–01 no less effective than the Federal rules at 30 CFR 800.11 and can be approved.

In addition, the Director suggests that prior to promulgating the rule, Ohio clarify the language of the rule, by adding the phrase "and estimated to be affected" to the language of the proposed rule following the words "number of acres shown as affected."

*4. OAC 1501:13–7–05 Procedures for Bond Release*

(a) *Newspaper advertisement.* Paragraph OAC 1501:13–7–05(A)(3) concerns the procedures for announcing a request for release of a performance bond in a newspaper advertisement. The proposed amendment consists of the correction of the spelling of the word mining in the first sentence, and the addition of the word "conference(s)" at two locations in paragraph (A)(3) to read "bond release conference" and "bond release conferences," respectively. The word "conference(s)" was inadvertently omitted from the text of an amendment to this provision in the submittal of Proposed Amendment No. 34 on May 24, 1988 (Ohio Administrative Record No. OH–1033). The proposed amendment corrects that omission.

The **Federal Register** notice announcing receipt of the proposed amendments inadvertently stated that amendments were also being made to 1501:13–7–05 (A)(6), (A)(7)(i) and (A)(7)(ii) (53 FR 47226). In fact, the amendments to these provisions were contained in Ohio Program Amendment No. 34 and were approved by OSM on December 22, 1988 (53 FR 51543).

The Federal regulations at 30 CFR 800.40(h) state that the regulatory authority may hold an informal conference to resolve written objections to the release of performance bonds. The Director finds that Ohio's addition of the term "conference(s)" to paragraph (A)(3) is no less effective than the Federal regulations.

(b) *Inspection of reclamation.* Paragraph OAC 1501:13–7–05(A)(5)(b)(i) concerns inspection by Ohio at the time of a request for the release of a bond. Provision (A)(5)(b)(i) states that the chief should consider whether or not the permittee has met certain listed requirements. The amendments to the provision are nonsubstantive word changes that clarify the existing rule. The Director finds that the provision remains no less effective than the counterpart Federal rule at 30 CFR 800.40(b).

(c) *Criteria for release of bond.* Paragraph OAC 1501:13–7–05(B)(2)(e) has been added to state that the chief may approve a request for release of performance bond for reclamation Phase II on areas from which temporary sedimentation ponds have not yet been removed, provided all requirements for a Phase II release are met. The amendment was enacted to provide consistency with rule 1501:13–9–4(G)(2)(e) (which is identical to the Federal rule at 30 CFR 816.46(b)(5)). Rule 1501:13–9–04(G)(2)(e) requires the retention of siltation structures, with all surface drainage from the disturbed area passing through the structures, for at least two years after the last augmented seeding. Although there is no direct Federal counterpart to the proposed rule, the Federal requirements for removal of siltation structures, standards for successful revegetation, and release of performance bonds all come into play in this provision.

The Federal regulations at 30 CFR 816.46(b)(5) require that siltation structures shall be maintained until removal is authorized by the regulatory authority and the disturbed area has been stabilized and revegetated. The Federal rule also states that siltation structures are not to be removed sooner than two years after the last augmented seeding. The Federal rules do not explicitly state, however, that siltation structures must be removed by a certain time prior to final bond release.

The Federal rule at 30 CFR 816.46(b)(5) was approved on September 26, 1983 (48 FR 44038). In responding to a commentor who suggested that allowing removal of a sediment pond two years after revegetation is not appropriate in all regions, OSM made the following comment: "Although OSM agrees that premature removal of a siltation structure would be disadvantageous, removal of a siltation structure before final bond release on the remaining reclaimed area could be beneficial." A guidance, OSM stated that site-specific conditions and possible failure of revegetation attempts after two years following the last augmented seeding should be considered by the operator, the engineer and the regulatory authority when deciding the best time for removal of a siltation structure. Such a determination is normally dependent upon factors such as the size of the area being disturbed during removal of the structures, and the necessity for regrading and seeding the area.

The regulatory authority must deny Phase III bond release if the area disturbed, including that disturbed by sedimentation ponds, has not been restored in accordance with the regulations. This denial of final bond release must continue until it has been determined that the area disturbed during the removal of the structures has been reclaimed in accordance with post-mining land use plan and has been successfully revegetated in accordance with reclamation requirements of the applicable program provisions and the permit.

In a letter dated February 14, 1989 (Administrative Record No. OH–1153), OSM informed Ohio that, since the proposed amendment to OAC 1501:13–7–05(B)(2)(e) does not clearly address the bond requirements for temporary sedimentation ponds not removed prior to Phase II bond release, Ohio should clarify its policy concerning the bonding and reclamation of any temporary ponds not reclaimed prior to the Phase II bond release.

In a letter dated February 24, 1989 (Administrative Record No. OH–1164), Ohio stated that the Division of Reclamation interprets rules OAC 1501:13–7–05 and 1501:13–9–15 to require that all permit areas be reclaimed in accordance with the requirements of chapter 1513, and specifically in accordance with the success standards of rule OAC 1501:13–9–15. In addition,

the Division would not release Phase III bond unless the pond areas had established vegetation and in all other respects were satisfactorily reclaimed. With regard to any potential operator default on the reclamation obligation following Phase II bond release, Ohio stated that if the amount of bond forfeited under the provisions of OAC section 1513.16 (Phase III bond) is insufficient to fund reclamation, then the balance necessary would come from the reclamation supplemental forfeiture fund created by OAC section 1513.08.

The Director finds that the policies Ohio would follow concerning the reclamation of sediment ponds not reclaimed prior to release of Phase II bond are consistent with the Federal rules concerning bond release. The Director also finds that the proposed rule at OAC 1501:13–7–05(B)(2)(e) is no less effective than the Federal rules at 30 CFR 800.40 and can be approved.

*5. OAC 1501:13–9–07 Disposal of Excess Spoil*

Paragraph OAC 1501:13–9–07(K)(1)(b) concerns the design precipitation event standard for diversions on or around valley and head-of-hollow fills. The proposed amendment deletes the words "twenty-four-hour" and substitutes the words "six-hour" in the language which specifies the design precipitation event criteria of the diversion channels. The Director finds that the proposed design precipitation event standard is identical to and no less effective than the Federal rule at 30 CFR 816.72(a)(2)

**IV. Disposition of Comments**

*Public Comments*

The public comment period and opportunity to request a public hearing announced in the November 22, 1988, **Federal Register** ended on December 22, 1988. No public comments were received and the scheduled public hearing was not held as no one requested an opportunity to provide testimony.

*Agency Comments*

Pursuant to section 503(b) of SMCRA and the implementing regulations at 30 CFR 732.17(h)(11)(i), comments were solicited from various Federal agencies with an actual or potential interest in the Ohio program. All responding agencies either concurred with the amendment or indicated they had no comments to offer.

**V. Director's Decision**

Based on the above findings, the Director has determined that Program Amendment Number 36 is no less stringent than SMCRA and no less effective than the Federal rules and is approving Program Amendment Number 36, as submitted by Ohio on October 20, 1988, and as clarified on February 24, 1989.

The Federal regulations at 30 CFR part 935 codifying decisions concerning the Ohio program are being amended to implement this decision. This final rule is being made effective immediately to expedite the State program amendment process and to encourage states to bring their programs into conformity with the Federal standards without undue delay. Consistency of State and Federal standards is required by SMCRA.

**VI. Procedural Determinations**

*National Environmental Policy Act*

The Secretary has determined that, pursuant to section 702(d) of SMCRA, 30 U.S.C. 1292(d), no environmental impact statement need be prepared on this rulemaking.

*Executive Order 12291 and the Regulatory Flexibility Act*

On July 12, 1984, the Office of Management and Budget (OMB) granted OSM an exemption from sections 3, 4, 7, and 8 of Executive Order 12291 for actions directly related to approval or conditional approval of State regulatory programs. Therefore, this action is exempt from preparation of a regulatory impact analysis and regulatory review by OMB.

The Department of the Interior has determined that this rule will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). This rule will not impose any new requirements; rather, it will ensure that existing requirements established by SMCRA and the Federal rules will be met by the State.

*Paperwork Reduction Act*

This rule does not contain information collection requirements which require approval by the Office of Management and Budget under 44 U.S.C. 3507.

**List of Subjects in 30 CFR Part 935**

Coal mining, Intergovernmental relations, Surface mining, Underground mining.

Dated: July 17, 1990.

**Carl C. Close,**

*Assistant Director, Eastern Field Operations.*

For the reasons set out in the preamble, title 30, chapter VII, subchapter T of the Code of Federal Regulations is amended as set forth below:

**PART 935—OHIO**

1. The authority citation for part 935 continues to read as follows:

**Authority:** 30 U.S.C. 1201 *et seq.*

2. In § 935.15, paragraph (pp) is added to read as follows:

**§ 935.15 Approval of regulatory program amendments.**

* * * * *

(pp) Program Amendment Number 36, as submitted to OSM on October 20, 1988, and as clarified on February 24, 1989, is approved effective July 25, 1990. The amendment consists of modifications to chapter 1501 of the Ohio Administrative Code at: 13–3–07(B)(8); 13–4–01(B); 13–7–01(A)(6)(c)(ii); 13–7–05 (A)(3), (A)(5)(b)(i), and (B)(2)(e); and 13–9–07(K)(1)(b).

[FR Doc. 90–17335 Filed 7–24–90; 8:45 am]
BILLING CODE 4310–05–M

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**30 CFR Part 950**

**Wyoming Permanent Regulatory Program**

**AGENCY:** Office of Surface Mining Reclamation and Enforcement (OSM), Interior.

**ACTION:** Final rule; approval of amendment.

**SUMMARY:** OSM is announcing approval, with certain exceptions, of a proposed amendment to the Wyoming permanent regulatory program (hereinafter referred to as the Wyoming program) under the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The amendment, submitted March 31, 1989, pertains to chapters I, II, IV, V, VI, VII, IX, XI, XII, XIII, XIV, XVI, XVII, and XVIII of the Department of Environmental Quality, Land Quality Division (DEQ/LQD) rules and regulations. The proposed amendment revises the Wyoming program to be consistent with the corresponding Federal standards.

**EFFECTIVE DATE:** July 25, 1990.

**FOR FURTHER INFORMATION CONTACT:** E. E. Filer, Acting Director, Office of Surface Mining Reclamation and Enforcement, Casper Field Office, Federal Building, 100 East B Street, room 2128, Casper, Wyoming 82601–1918; telephone (307) 261–5776.

**SUPPLEMENTARY INFORMATION:**

I. Background on the Wyoming Program
II. Submission of Amendment
III. Director's Findings
IV. Summary and Disposition of Comments
V. Director's Decision
VI. Procedural Determinations

## I. Background on the Wyoming Program

On November 26, 1980, the Secretary of the Interior conditionally approved the Wyoming program. General background information on the Wyoming program, including the Secretary's findings, the disposition of comments, and the conditions of approval of the Wyoming program can be found in the November 26, 1980 **Federal Register** (45 FR 78637). Subsequent actions concerning Wyoming's program and program amendments can be found at 30 CFR 950.12, 950.15 and 950.16.

## II. Submission of Amendment

On March 31, 1989 Wyoming submitted a proposed amendment to its program pursuant to SMCRA (Administrative Record No. WY–12–1). Wyoming submitted the proposed amendment in response to the December 23, 1985 and June 6, 1987 letters that OSM sent in accordance with 30 CFR 732.17(d) (Administrative Record Nos. WY–12–15 and WY–12–16). Wyoming proposes to amend the following DEQ/LQD rules and regulations relating to coal mining operations: Authorities and Definitions, chapter I; Permit Applications, chapter II; Environmental Protection Performance Standards, chapter IV; Performance Standards for Special Categories of Coal Mining, chapter V; Blasting for Surface Coal Mining Operations, chapter VI; Underground Mining, chapter VII; Variances for Surface Coal Mining Operations, chapter IX; Coal Exploration, chapter XI; Self-bonding Program, chapter XII; Procedures Applicable to Surface Coal Mining Operations, chapter XIII; Permit Revisions, chapter XIV; Release of Bonds or Deposits for Surface Coal Mining Operations, chapter XVI; Inspections, Enforcement and Penalties for Surface Coal Mining Operations, chapter XVII; and Designation of Areas Unsuitable for Surface Coal Mining, chapter XVIII.

The Director announced receipt of the proposed amendment in the April 20, 1989 **Federal Register** (54 FR 15955), and in the same notice, opened the public comment period and provided opportunity for a public hearing on its substantive adequacy (Administrative Record No. WY–12–4). The public comment period closed on May 22, 1989 The public hearing scheduled for May 15, 1989 was not held because no one requested an opportunity to testify.

During its review of the amendment, OSM identified twelve issues included under the following topics: Permit revisions, topsoil substitutes, disposal of excess spoil, groundwater monitoring frequency, revegetation: Standards for success, stream diversions, bond release, and inspection and enforcement. OSM notified Wyoming of these issues by letter dated June 21, 1989 (Administrative Record No. WY–12–6). Wyoming responded in a letter dated July 17, 1989 (Administrative Record No. WY–12–7) to all twelve issues cited in the June 21, 1989 OSM letter.

On July 18, 1989, at the request of Wyoming, a meeting was held between OSM and the State to discuss the twelve issues. OSM sent a follow-up letter dated July 27, 1989 (Administrative Record No. WY–12–8) to Wyoming that summarized the results of the July 18, 1989 meeting and actions required to resolve the outstanding issues.

OSM then followed up in an August 9, 1989 letter that discussed further research it had conducted regarding three of the twelve issues: permit revisions, topsoil substitutes and bond release applications (Administrative Record No. WY–12–9).

In letters dated August 14, 1989 and August 22, 1989 (Administrative Record Nos. WY–12–10 and WY–12–11) Wyoming responded to issues identified at the meeting and in OSM's August 9, 1989 letter that included permit revisions, topsoil substitutes, disposal of excess spoil, and inspection and enforcement.

In a letter dated October 3, 1989 (Administrative Record No. WY–12–12) OSM notified Wyoming that waiver of a stability analysis remained as the only unresolved issue. By letter dated October 27, 1989 (Administrative Record No. WY–12–13) to OSM, Wyoming stated it would recommend to its Environmental Quality Council that the waiver of stability analysis included in the proposed amendment be deleted.

OSM announced receipt of the additional correspondence between it and Wyoming in the November 17, 1989 **Federal Register** (54 FR 47778) and, in the same notice, gave the public an opportunity to comment on the information unitl December 4, 1989, the close of the comment period. No comments were received.

## III. Director's Findings

Set forth below, pursuant to SMCRA and the Federal regulations at 30 CFR 732.15 and 732.17, are the Director's findings concerning the amendment submitted by Wyoming on March 31, 1989 and subsequently clarified and revised on July 17 and 18, August 14 and 22, and October 27, 1989. The Director may require further changes in the future as a result of Federal regulatory revisions, court decisions, and continuing OSM oversight of the Wyoming program.

### *1. Substantive Revisions to Wyoming's Regulations That Are Substantially Identical to the Counterpart Federal Regulations*

Wyoming proposes revisions to the following sections of the DEQ/LQD rules and regulations that are substantive in nature and, with the exception of those rules discussed in subsequent findings, contain language substantially identical to the corresponding Federal regulations: Chapter I, section 2 (counterpart Federal regulation 30 CFR 701.5), definitions; chapter II, section 2 (30 CFR parts 779 and 780), general application content requirements; chapter II, section 3 (30 CFR parts 779 and 780), special application content requirements for surface coal mining operations; chapter IV, section 2 (30 CFR parts 816 and 817), general environmental protection performance standards; chapter IV, section 3 (30 CFR parts 816 and 817), special environmental protection performance standards applicable to surface coal mining and reclamation operations; chapter V, section 2 (30 CFR part 823), performance standards for prime farmland; chapter V, section 6 (30 CFR part 819), performance standards for auger mining; chapter V, section 7 (30 CFR 816.106), performance standards for remining; chapter VI, section 4 (30 CFR 816.61, 816.64, 816.66, and 816.67), blasting standards; chapter VII, section 1 (30 CFR part 784), underground mining permit application content requirements; chapter IX, section 1 (30 CFR 785.13), content of variance requests for surface coal mining operations; chapter IX, section 2 (30 CFR 785.13), procedures for variances for surface coal mining operations; chapter IX, section 3 (30 CFR 785.13), criteria for variances from approximate original contour; chapter XI, section 1 (30 CFR 772.11), general requirements for coal exploration of less than 250 tons; chapter XI, section 3 (30 CFR 772.12), approval of applications for exploration of more than 250 tons or in an area designated as unsuitable for surface coal mining operations; chapter XII, section 2 (30 CFR 800.23), initial application to self bond; chapter XII, section 4 (30 CFR 800.23), renewal of self bonds; chapter XII, section 6 (30 CFR 800.40 and 800.50), requirements for forfeiture and release of self bond; chapter XIII, section 1 (30 CFR parts 761, 773, 774, and 800), permitting procedures; chapter XIV, section 2 (30 CFR part 774), criteria for public notice requirements; chapter XVI, section 1 (30 CFR 800.40), request for bond release;

chapter XVI, section 3 (30 CFR 800.40), inspection of the permit area for bond release; chapter VI, section 4 (30 CFR 800.40), notification for bond release; chapter XVII, section 1 (30 CFR parts 840 and 842), inspections; chapter XVIII, section 1 (30 CFR 762.5), definitions for designation of areas unsuitable for surface coal mining; and chapter XVIII, section 3 (30 CFR 764.13 and 764.15), processing petitions for designation of areas unsuitable for surface coal mining. The Director, therefore, finds that these proposed revisions to Wyoming's regulations are no less effective than the corresponding Federal regulations.

In this submission Wyoming also proposes to address numerous required amendments that the Director placed on Wyoming's program at 30 CFR 950.16 as the result of past amendment reviews. With the exception of those required amendments discussed in subsequent findings, Wyoming's proposed rules that address the required amendments at 30 CFR 950.16 contain language substantially identical to the corresponding Federal regulations: chapter I, section 2(f) (30 CFR 950.16(e)), definition of "applicant;" chapter II, section 3(a)(vi)(B) (30 CFR 950.16(g)), geologic information; chapter IV, section 3(c)(i)(I) (30 CFR 950.16(o)), excess spoil fills; chapter IV, section 3(h)(iii)(F) and (G) (30 CFR 950.16(p)(2) and (3)), inspection of impoundments; chapter IV, section 3(h)(iii)(H) (30 CFR 950.16(p)(1)), examination of impoundments; chapter IV, section 3(p)(i)(E) (30 CFR 950.16(q)), fish and wildlife; chapter V, section 6(e) (30 CFR 950.16(a)(1), auger mining; chapter V, section 7(a) (30 CFR 950.16(a)(2)), remining; chapter XII, section 3(c)(iv) (30 CFR 950.16(r)(1), access to and control over collateral; chapter XVIII, section 1(a) (30 CFR 950.16(d)(1)), definition of "fragile lands;" and chapter XVIII, section 3(a)(iii) and (viii) (30 CFR 950.16(d)(2)), lands unsuitable petitions. The Director, therefore, finds that these proposed revisions to Wyoming's regulations are no less effective than the corresponding Federal regulations and is removing the required program amendments previously placed on Wyoming's program.

*2. Chapter II, Section 3(a)(vi)(A), Geologic Description*

Wyoming proposes to amend chapter II, section 3(a)(vi)(A) to require that an application for a permit to conduct surface coal mining operations contain a description of the geology of the proposed permit, and by extrapolation, adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. For underground coal mining operations, chapter VII, section 1(b) requires that underground coal mining applications comply with the permit application requirements of chapter II, section 3.

Counterpart Federal regulations 30 CFR 780.22(b)(1), that addresses geologic information for surface mining operations, and § 784.22(b)(1), that addresses geologic information for underground mining operations, require, in part, that applications for permits contain a description of the geology of the permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining.

Except for the phrase "by extrapolation," the proposed State rule is identical to the relevant portions of the Federal regulations. On June 5, 1990 (Administrative Record No. WY–12–24) the State provided clarification of the intent of the phrase "by extrapolation." Wyoming stated that the phrase was added because of concerns from industry that the rule could be interpreted to require drilling outside the permit area. The industry stated that generally they did not have legal access to those adjacent areas and therefore could not conduct drilling on those adjacent areas. For this reason the State modified the proposed rule to include the phrase "by extrapolation."

The State's intent was to allow mining companies to use drilling information from within the permit area to extrapolate out to adjacent areas in order to describe the geology of adjacent areas. It does not relieve companies from using existing information to describe the adjacent areas, only the need to drill outside the permit area. Nor does the proposed rule affect the level of geologic information the applicants are required to provide in order to make a determination of the probable hydrologic consequences or for the cumulative hydrologic impact assessment. Since the Federal regulations at 30 CFR 780.22(b)(2) and 784.22(b)(2) only require the results of drilling from within the permit area, the State's clarification of the use of the phrase "by extrapolation" is no less effective than the Federal requirement.

However, Federal regulation 30 CFR 780.22(b)(1) also requires that the geologic description include the areal and structural geology of the permit and adjacent areas, and other parameters which influence the required reclamation and the occurrence, availability, movement, quantity, and quality of potentially impacted surface and ground waters. 30 CFR 784.22 contains a similar requirement for underground coal mining applications. The proposed Wyoming rules do not contain a counterpart to these Federal regulation requirements.

The Director finds that, to the extent submitted, Wyoming's proposed rule at chapter II, section 3(a)(iv)(A), is no less effective than the Federal regulation and is approving the proposed rule. However, to achieve consistency with Federal regulations 30 CFR 780.22(b)(1) and 784.22(b)(1), the Director is requiring Wyoming to further amend its rules to require that the geologic description include the areal and structural geology of the permit and adjacent areas, and other parameters which influence the required reclamation and the occurrence, availability, movement, quantity, and quality of potentially impacted surface and ground waters.

*3. Chapter II, Section 3(a)(vi)(C)(II), Maps and Cross-Sections*

Wyoming proposes to amend chapter II, section 3(a)(iv)(C)(II) to require maps and cross-sections showing all coal crop lines within the permit area. Chapter VII, section 1(b) requires that underground coal mining applications contain the same information required for surface coal mining applications in chapter II, section 3. The Federal counterparts at 30 CFR 779.25(a)(4), that addresses surface mining, and § 783.25(a)(4), that addresses underground mining, require maps and cross sections showing the strike and dip of the coal to be mined within the permit area, as well as all coal crop lines. The proposed State rules lack a requirement that the maps and cross sections also show the strike and dip of the coal seam to be mined within the proposed permit area.

The Director finds that, to the extent submitted, Wyoming's proposed change to its rules at chapter II, section 3(a)(iv)(C)(II) is no less effective than the Federal regulations and is approving the change. However, to achieve consistency with Federal regulations 30 CFR 779.25(a)(4) and § 783.25(a)(4), the Director is requiring Wyoming to further amend its program to require that the maps and cross sections show the strike and dip of the coal seam to be mined within the proposed permit area.

*4. Chapter II, Section 3(b)(xvi)(D), Stability Analysis*

Wyoming proposes to amend chapter II, section 2(b)(xvi)(D) by adding a statement that the stability analysis for excess spoil disposal sites may be waived by the administrator if he determines, in writing, that the proposed spoil pile design is so conservative relative to site conditions that risk of slope foundation failure is remote.

Federal regulation 30 CFR 780.35(b)(5) requires that a stability analysis must be performed for excess spoil disposal sites. In addition, section 515(b)(22) of SMCRA specifically requires that stability of excess spoil be assured. Therefore, the Director finds that the proposed State rule less effective than the Federal regulation and is not approving in the stability analysis waiver provision in chapter II, section 3(b)(xvi)(D).

*5. Chapter IV, Section 3(a)(ix), Cut-and-Fill Terraces*

Wyoming proposes to amend its program at chapter IV, section 3(a)(ix) to eliminate the use of cut-and-fill terraces. Federal regulations at 30 CFR 816.102(g) allow the use of cut-and-fill terraces to conserve soil moisture, ensure stability, control erosion, or where specialized grading, foundation conditions or roads are required for the postmining land use. However, the use of cut-and-fill terraces is an optional reclamation technique under the Federal program. Therefore the Director finds that the State's elimination of this rule does not render the Wyoming program less effective than the Federal regulations and approves the delegation of the State rule.

*6. Chapter IV, Section 3(b)(vii), Topsoil Substitutes*

Wyoming proposes to amend chapter IV, section 3(b)(vii) to include a rule governing the use of topsoil substitutes. As proposed in the March 31, 1989 submittal and later revised by Wyoming's letter of August 22, 1989 the rule states that if a sufficient volume of suitable topsoil or subsoil is not available for salvage or redistribution then selected overburden may be used as a topsoil substitue or supplement. The operator must demonstrate by analysis of the thickness of soil horizons, total depth, texture, percent coarse fragments, pH, and areal extent of the different kinds of soils that the resulting soil medium is of equivalent or better suitability than the existing topsoil or will be the best available at the time of use. For underground coal mining, chapter VII, section 2 requires that underground coal mining operations comply with the surface coal mining performance standards of chapter IV, section 3.

Federal regulations 30 CFR 816.22(b) and 817.22(b) allow use of selected overburden materials as topsoil substitutes or supplements if the operator demonstrates that the resulting soil medium is equal to, or more suitable for sustaining vegetation than the existing topsoil and is the best available in the permit area to support revegetation.

OSM expressed concern with the proposed State rule for two reasons. First, in its June 21, 1989 letter (Administrative Record No. WY–12–6), OSM was concerned that "best available at the time use" was less effective that the Federal counterpart "best available in the permit area to support revegetation" because it could be interpreted to allow the use of material that may be the best available at the time it is respread for revegetation, but not necessarily the best available with the permit area. In response to this concern, Wyoming, in its July 17, 1989 letter (Administrative Record No. WY–12–7) and in the July 18, 1989 meeting with OSM, stated it considers the "best available at the time of use" to be the same as "best available in the permit area to support revegetation" because any substitute material would have to come from the permit area and "best available" connotes the support of revegetation. The intent of the proposed language was to eliminate the potential for requiring use of substitute material from reclaimed areas still under bond, environmentally sensitive areas, and undisturbed areas located within the permit area (Administrative Record No. WY–12–23). All other areas within the permit area would be potential sources of substitute material. Finally, Wyoming stated that by meeting the established analytic parameters the best available will be used. Based on the State's explanation of the intent of its language "best available at the time of use" the Director finds the proposed change is consistent with and no less effective than the Federal requirement to use "the best available in the permit area to support revegetation" and is approving the proposed change.

OSM's second concern was the State's use of the word "or" in the proposed rule. The proposed rule requires the operator to demonstrate the substitute material is of equivalent or better suitability than the existing topsoil or is the best available. The Federal counterparts at 30 CFR 816.22(b) and 817.22(b) require the operator to demonstrate the substitute material is of equivalent or better suitability than the existing topsoil *and* is the best available. The State's use of "or" allows the operator a choice of demonstrating that the material is of equivalent or better suitability than the existing topsoil or demonstrating that it is best available. The Federal counterpart requires the operator to demonstrate both. In response to this concern the State, in a letter dated February 15, 1990 (Administrative Record No. WY–12–22), agreed with OSM's concern and revised the proposed rule to replace the word "or" with the word "and". As a result of this change the Director finds that Wyoming's proposed rule is no less effective than the Federal regulation and is approving the proposed change. The Director also finds that the required program amendment at 30 CFR 950.16(j) regarding the use of topsoil substitutes has been adequately addressed and is removing that program amendment requirement.

*7. Chapter IV, Section 3(c)(iii), Disposal of Non-Coal Mine Waste*

Wyoming proposes to amend its rules at chapter IV, section 3(c)(iii), that govern the disposal of acid forming and toxic materials, to include requirements for the disposal of non-coal mine waste. The State proposes to add language to the existing rules to require: (1) Compaction followed by burial or treatment; (2) storage in a controlled manner until final burial; (3) storage, final burial and treatment in accordance with all local, State and Federal requirements; and (4) prohibiting burial or storage of any waste material capable of polluting water in proximity to a drainage channel or its flood plain. Also Wyoming proposes to add a rule at chapter IV, section 3(c)(iii)(C) requiring that non-coal mine waste materials and any material classified as hazardous be buried in designated disposal sites authorized by the solid waste management section of the department. For underground coal mining, chapter VII, section 2 requires that underground coal mining operations comply with the surface coal mining performance standards of chapter IV, section 3.

The proposed State rules are similar to Federal regulations 30 CFR 816.89 and 817.89, that govern the disposal of non-coal mine waste for surface and underground operations respectively, except that the State rules do not specifically require: (1) Placement of 2 feet of soil cover over the site; (2) prohibit disposal in refuse piles or impounding structures; or (3) prohibit

placement of non-coal wastes within 8 feet of a coal outcrop or coal storage area. However, the proposed rules require that all non-coal waste be buried in designated disposal sites authorized by the State's solid waste management section that operates under the authority of the State's solid waste management rules. In addition, chapter II, section 3(a)(v)(A)(II) requires that each application contain the information from the approved construction and operating plans for an industrial solid waste land disposal facility which affirmatively demonstrates that disposal of non-coal wastes shall be in accordance with the standards set out in section 11, paragraph c, of Wyoming's Solid Waste Management Rules and Regulations (1980). Section 11(c)(1)(i) (B) and (C) of the Solid Waste Management Rules and Regulations (Administrative Record No. WY–12–21) requires 2 feet of soil cover be placed over any disposal site and prohibits disposal in refuse piles, impoundments or within 8 feet of a coal outcrop or storage area. Therefore, the Director finds the proposed State rules, in combination with the requirement to comply with the State solid waste management rules, are no less effective than the Federal regulation requirements at 30 CFR 816.89 and 817.89 and is approving the proposed rules.

*8. Chapter IV, Section 3(d)(vi), Standards for Revegetation Success*

Wyoming proposes to amend chapter IV, section 3(d)(vi) to allow the State to approve the use of alternative revegetation success standards. The alternative success standard must be based on technical information obtained from a recognized authority (*e.g.*, Soil Conservation Service, Agricultural Research Service, universities, Wyoming Game and Fish Department, U.S. Fish and Wildlife Service) or be supported by scientifically valid research. Use of the alternative technical standards must be supported by concurrence from State and Federal agencies having an interest in management of the affected lands.

Federal regulation 30 CFR 816.116(a)(1) requires the regulatory authority to select standards for success and include them in the approved regulatory program. Therefore the use of alternative technical success standards is acceptable. However before alternative technical success standards can be implemented the technical information or scientifically valid research on which revegetation success standards can be based must be identified and included in the approved regulatory program in accordance with 30 CFR 816.116(a)(1).

The Director finds the proposed State rule does not render the State program less effective than the Federal regulation provided that prior to implementing the rule the State will submit for OSM's approval and inclusion in the Wyoming program an amendment identifying those alternative success standards the State wants to use. As a result of the July 18, 1989 meeting the State agreed to delay implementation of its regulation at chapter IV, section 3(d)(vi) until alternative success standards are submitted and approved by OSM in accordance with 30 CFR 816.116(a)(1) (Administrative Record No. WY–12–8).

*9. Chapter IV, Section 3(i), Water Monitoring Data*

Wyoming proposes to amend chapter IV, section 3(i) to require that, with regard to surface coal mining operations, all surface water and groundwater monitoring records be submitted to the State at least annually. Routine monitoring results shall also be maintained on site and be available for review during inspections. Chapter VII, section 2 requires that underground coal mining operations also comply with the surface coal mining performance standards of chapter II, section 3.

Federal regulations 30 CFR 816.41 (c)(2) and (e)(2) and 817.41 (c)(2) and (e)(2) require that surface water and groundwater monitoring results be submitted by the permittee quarterly. Federal regulations do not require that monitoring results be available on site.

Wyoming does not require quarterly reporting as does the Federal regulations, but instead it requires annual reporting. However, Wyoming requires that all hydrologic monitoring records be available for review on site. This would allow the inspector to evaluate the records on a continuous basis and therefore meets the intent of the Federal requirement for quarterly reporting.

However, the State's proposed rules at chapter IV, section 3(i) do not require that ground water be monitored by the operator on a quarterly basis. The Federal regulations at 30 CFR 780.21(i) and 784.14(h) require that ground water be monitored at least every 3 months for each monitoring location. To be no less effective than the Federal regulations Wyoming must require quarterly ground water monitoring by the operator.

The Director finds that, as submitted, Wyoming's proposed rule at chapter IV, section 3(i) is no less effective than the Federal requirements and is approving the revision. However, to achieve consistency with the Federal regulations, Wyoming must further amend its program to require quarterly ground water monitoring by the operator.

*10. Chapter IV, Section 3(u), Protection of the Hydrologic Balance*

Wyoming proposes to amend its rules to add a requirement at chapter IV, section 3(u) that the operator conduct all surface coal mining operations in such a manner as to minimize disturbance of the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area, to assure the protection or replacement of water rights, and to support approved postmining land uses in accordance with the terms and conditions of the approved permit and the performance standards of this chapter. Wyoming further proposes to amend its rules to require that mining and reclamation practices that minimize water pollution and changes in flow shall be used in preference to water treatment. Chapter VII, section 2 requires that underground coal mining operations also comply with the surface coal mining performance standards of chapter IV, section 3.

The Federal counterparts at 30 CFR 816.41(a) and 817.41(a) also require that all surface and underground coal mining and reclamation activities be conducted to minimize disturbance of the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area, to assure protection or replacement of water rights, and to support approved postmining land uses in accordance with the terms and conditions of the approved permit and the performance standards of this part. These Federal regulations further provide that the regulatory authority may require additional preventive, remedial, or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented. Finally, Federal regulations require that mining and reclamation practices that minimize water pollution and changes in flow be used in preference to water treatment.

Wyoming's proposed rule is substantially identical to the Federal regulation with one exception. The proposed State rule does not allow the Wyoming regulatory authority to require additional preventive, remedial, or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented.

The Director finds that Wyoming's proposed rule at chapter IV, section 3(u), as submitted, is no less effective than

the Federal regulations and is approving the change. However, to achieve consistency with Federal regulations 30 CFR 816.41(a) and § 817.41(a), the Director is requiring Wyoming to further amend its rules to add language giving the State regulatory authority the authority to require additional preventive, remedial, or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented.

*11. Chapter VI, Section 3(a), Public Notice of the Blasting Schedule*

Wyoming proposes to amend chapter VI, section 3(a), the rules governing public notice of the blasting schedule. The proposed rule requires the permittee to publish the blasting schedule in a newspaper of general circulation in the locality of the proposed blasting site at least 30 days, but not more than 60 days, before beginning a blasting program. The permittee must also revise and republish the blasting schedule at least 30 days, but not more than 60 days, prior to blasting whenever the area covered by the schedule changes or time periods differ significantly from prior announcements.

The Federal regulation at 30 CFR 816.64(b) requires that a blasting schedule be published and in certain instances, republished, at least 10 days, but not more than 30 days, prior to initiating blasting. The time frame specified in the Federal regulations was adopted to allow operators more flexibility and potentially provide more effective and earlier notification to local residents of the availability of preblasting surveys (47 FR 12760, 12764, March 24, 1982). As proposed, the State rule would provide the opportunity for even earlier public notification to local residents than the Federal regulations. For this reason, the Director finds that the proposed State rule is no less effective than the Federal regulations.

*12. Chapter VII, Section 4(a)(ii), Surface Owner Protection*

Wyoming's present rule at chapter VII, section 4(a)(ii) states that each operator who conducts underground coal mining activities shall, to the extent required under State law, either correct material damage resulting from subsidence caused to any structures or facilities by repairing the damage or compensate the owner of such structures or facilities in the full amount of the reduction of value resulting from the subsidence. Repair of damage includes rehabilitation, restoration, or replacement of damaged structures or facilities. Wyoming proposes to delete the phrase "to the extent required under State law."

Wyoming's present rule is identical to the Federal regulation at 30 CFR 817.121(c)(2). However, in the case of *National Wildlife Fed'n* v. *Lujan*, Nos. 87–1051, 87–1814, and 88–2788 (D.D.C. Feb. 12, 1990), the court held that the Federal regulations may not limit, by reference to State law, the duty of an underground operator to correct material damage to structures caused by subsidence. More specifically, the court held that 30 CFR 817.121(c)(2) is inconsistent with sections 102(b) and 516(b)(1) of SMCRA which generally provide, respectively, that rights of surface landowners and other persons with a legal interest in land be fully protected from surface coal mining operations, and that operators be required to adopt measures in order to (1) prevent subsidence to the extent technologically and economically feasible, (2) maximize mine stability, and (3) maintain the value and reasonably foreseeable use of surface lands. The court reasoned that in enacting these provisions, Congress did not differentiate, based upon State law, between the duties of underground operators with respect to subsidence damage to land or structures. (*Id.*, mem. op. at 12.) Accordingly, the court remanded "this rule to the Secretary to be revised by striking the reference to State law." (*Id.*, mem. op. at 20.)

As proposed, Wyoming's deletion of the phrase "to the extent required under State law" makes the State rule consistent with the court's remand and the requirements of SMCRA. The Director finds that Wyoming's proposed rule at chapter VII, section 4(a)(ii) is no less stringent than sections 102(b) and 516(b)(1) of SMCRA and is approving the change. The Director also finds that the proposed change adequately addresses a required program amendment at 30 CFR 950.16(b) regarding the correction of material damage or compensation to the owner as the result of subsidence and is removing the required amendment.

*13. Chapter XI, Section 3(b), Administrative and Judicial Review of Decisions on Exploration Licenses*

Wyoming proposes to amend chapter XI, section 3(b) to require that if the administrator provides notice that he intends to approve the application for an exploration license, then any person having an interest which is or may be adversely affected shall have the right to file written objections to the application within thirty days after the notification. Such persons shall have the opportunity for administrative and judicial review as outlined in W.S. 35–11–406(p). If there are no objections, the administrator shall promptly approve and issue the license in accordance with the exploration licensing rules.

The Federal counterpart at 30 CFR 772.12(e)(2) requires that any person having an interest which is or may be adversely affected by a decision of the regulatory authority on an application for the exploration permit shall have the opportunity for administrative and judicial review as set forth in part 775 of this chapter.

The proposed State rule provides the same opportunity for administrative and judicial review as the Federal counterpart with the one exception. The proposed State rule appears to only allow persons having an interest which is or may be adversely affected by an approval, but not a disapproval, to file written objections or have an opportunity for administrative and judicial review. The Federal regulation provides the opportunity for administrative and judicial review to persons adversely affected by either an approval or a disapproval.

The Director is not approving Wyoming's proposed revision of chapter XI, section 3(b) to the extent that it does not give persons adversely affected by the disapproval of an exploration license the opportunity for administrative and judicial review. To achieve consistency with Federal regulations, the Director is modifying the required amendment at 30 CFR 950.16(c) to require the State to further amend its program to give persons adversely affected by a disapproval the same opportunity for administrative and judicial review.

*14. Chapter XII, Self-Bonding Program*

Wyoming proposes to revise its regulations in chapter XII, governing self bonding, to allow the use of personal property as collateral for securing self bonds. The State, chapter XII, section 1(b), defines collateral as the actual or constructive deposit, as appropriate, with the State of one or more of the following kinds of property to support a self bond: (1) Real property; (2) securities backed by the United States or State government securities; and (3) personal property. The personal property must be located within the State, owned by the operator, and have a market value that exceeds $1 million per property unit.

In order to use personal property for collateral, the Wyoming rule, at chapter XII, section 3(c)(ii), requires that the operator must either: (1) Have a tangible net worth of at least $10 million, a ratio

of total liabilities to net worth of 3.0 times or less, and a ratio of current assets to current liabilities of 1.0 times or greater or (2) have fixed assets in the United States that total at least $20 million, a ratio of total liabilities to net worth of 3.0 times or less and a ratio of current assets to current liabilities of 1.0 times or greater.

For any personal property collateral offered to support a self bond, chapter XII, sections 3(c)(i) (A), (B) and (C) require the operator to provide the following information regarding the property: (1) The value of the collateral, which must be based upon the difference between the appraised fair market value and any reasonable expenses anticipated by the State in selling the property; (2) a description of the property satisfactory for deposit; and (3) evidence of the operator's ownership submitted in the form satifactory to the administrator to establish unquestionable title to the property in the operator. The appraiser must be proposed by the operator and selected by the State. The State may reject any appraiser proposed by the operator. Personal property must be in the possession of the operator and unencumbered. In addition, personal property may not include property which is already being used as collateral, goods which the operator sells in the ordinary course of business, fixtures or certificates of deposit which are not federally insured or where the depository is unacceptable to the State.

As a condition of approval, chapter XII, section 3(c)(iii) requires that if the State accepts personal property as collateral to support a self bond, the State must receive quarterly maintenance reports prepared by the operator. The State may also require quarterly inspections of the personal property. The operator must provide the State with a perfected, first lien security interest in favor of the State. Finally, chapter XII, section 3(c)(iv) requires that the State's interest in the personal property be secured under the provisions of the Uniform Commercial Code.

The Federal regulations at 30 CFR 800.23 do not contain a counterpart to Wyoming's revised regulations providing for the use of personal property as collateral for self bonds. Federal regulations at 30 CFR 800.21 do allow the use of real property and government backed securities as collateral for indemnity agreements. OSM eliminated the use of personal property as collateral in a July 19, 1983 **Federal Register** notice (48 FR 32932). In that notice, OSM stated that because of potential problems, including potential loss of the property, difficulties obtaining appraisals of such items, fluctuations in value, and the potential attachment of liens, personal property as a general form of collateral was deleted from the Federal definition of collateral bond.

In a May 6, 1987 **Federal Register** notice (52 FR 16845) OSM found a Wyoming proposal to accept personal property as collateral for a self bond to be less effective than the Federal regulations for the same reasons discussed in July 19, 1983 **Federal Register** notice. The May 6, 1987 notice went on to state that the regulatory authority would risk devaluation of the property through damage or obsolescence or through inability to find a buyer for the property at the appraised price. Costs, such as the cost to move mining equipment to a potential buyer's location, could affect the salability of, or profit on, a piece of equipment. Further, there was no guarantee that the property would be in suitable condition for use in reclamation or resale.

Wyoming's proposed regulations allowing the use of personal property to support a self bond address all of these previously expressed concerns. The requirement that personal property used as collateral have a minimum appraised market value of $1 million per property unit prevents the State from accepting small, hard to track property that could be lost. By setting the value of the property at the difference between the appraised market value and the cost to the State of selling the property, a more realistic valuation of the property as self-bonding collateral is attained. This is consistent with the margin of value concept in the Federal regulations at 30 CFR 800.21 and addresses concerns over finding a buyer at the appraised value. The State's ability, under chapter XII, section 4(a)(iv), to require additional appraisals at any time ensures that the State may keep current with any fluctuations in value. Also, the required quarterly maintenance reports ensure that the personal property is maintained in suitable condition for use as collateral. Finally, because the operator must meet a set of financial criteria to demonstrate solvency, this provides extra assurance to the State that if the property should decrease in value, the operator will have the financial ability to supplement the self bond with additional collateral and/or surety bonding.

Regarding concerns over the potential for the attachment of liens, Wyoming requires that the State must receive a perfected, first-lien security interest in favor of the State. The State's security interest must be perfected pursuant to Uniform Commercial Code (UCC) requirements, which requires the operator to file a UCC 101 form (financing statement) with the Secretary of State to establish the State's first lien. It is violation of the UCC to remove property serving as collateral from the State. The requirement that the operator meet a set of financial requirements ensures the operators financial strength and solvency. Finally, accepting personal property to collateralize a self bond had the effect of elevating the State's position to that of a secured creditor in the event of a bankruptcy of the operator.

Therefore, the Director finds that Wyoming's proposed rules allowing the use of personal property as collateral to support a self bond is consistent with and no less effective than the Federal regulations and is approving the rules. The Director also finds that the required program amendment at 30 CFR 950.16(r)(2) regarding the use of personal property as collateral has been adequately addressed and he is removing that program amendment requirement.

*15. Chapter XIII, Section 1(a)(v)(C), Prohibitions and Limitations on Mining in Certain Areas*

Wyoming's present rule at chapter XIII, section 1(a)(v)(C) provides that subject to valid existing rights or unless the surface coal mining operation existed on August 3, 1977, surface coal mining operations are prohibited or limited on any lands which will adversely effect any publicly owned part or any publicly owned places included in the National Register of Historic Places (NRHP) unless jointly approved by the administrator and the Federal, State or local agency with jurisdiction over the park or place. Wyoming proposes to revise this rule by deleting the words "any publicly owned" before the phrase "places included in the NRHP."

Prior to February 10, 1987, the counterpart Federal regulation at 30 CFR 761.11(c) provided that subject to valid existing rights, no surface coal mining operations shall be conducted after August 3, 1977, unless those operations existed on the date of enactment on any lands where mining will adversely affect any publicly owned park or any publicly owned places included in the NRHP, unless approved jointly by the regulatory authority and the Federal, State, or local agency with jurisdiction over the park or place. On February 10, 1987, OSM revised this regulation by

deleting the words, "publicly owned" before the phrase "places included in the NRHP" (52 FR 4244, 4254). This change was necessary to assure consistency with other Federal regulations. However, the word "any" was retained to clarify that privately-owned, as well as publicly-owned, National Register listed properties are covered by these provisions.

Wyoming's deletion of the words "publicly owned" is acceptable. But, by deleting the word "any" prior to "places included in the NRHP," Wyoming's regulation does not assure that the protection for privately-owned places listed on the NRHP will be achieved.

The Director finds that Wyoming's deletion of the words "publicly owned" from chapter XIII, section 1(a)(v)(C) is no less effective than the Federal regulation at 30 CFR 761.11(c) and is approving the change. However, the deletion of the word "any" from the State rule is less effective than the Federal regulation and the Director is not approving the deletion. The Director is requiring Wyoming to amend its rule at chapter XIII, section 1(a)(v)(C) by reinstating the word "any" in order to be no less effective than the counterpart Federal regulation.

*16. Chapter XIII, Section 1(b)(i)(C), Procedural Requirements*

The State's present rule at chapter XIII, section 1(b)(i)(C) requires that, for permit renewals, at least 120 days before expiration of the permit term, the applicant shall file evidence that the bond and a liability insurance policy or adequate self-insurance will be provided. Wyoming proposes to revise this rule by deleting the phrase "or adequate self-insurance."

Federal regulation 30 CFR 800.60(d) states that the regulatory authority may accept from the applicant, in lieu of a certificate for a public liability insurance policy, satisfactory evidence from the applicant that it satisfies applicable State self-insurance requirements approved as part of the regulatory program and the requirements of this section.

Wyoming is eliminating its self-insurance provision because the State's insurance commission does not regulate self-insurance. Federal regulation allows the regulatory authority to accept self-insurance if state requirements are satisfied. Since Wyoming does not regulate self-insurance, self-insurance is not an option. The Director finds that Wyoming's deletion of self-insurance from chapter XIII, section 1(b)(i)(C) is consistent with and no less effective than the Federal regulation at 30 CFR 800.60(d) and is approving the deletion.

*17. Chapter XIII, Section 1(b)(ii), Notification of Permit Transfer*

On December 23, 1985, in accordance with 30 CFR 732.17(d), OSM notified Wyoming of the need to revise their rules to include a counterpart to Federal regulation 30 CFR 774.17(e)(2) (Administrative Record No. WY–12–15). The Federal regulation requires, in part, that the successor of a permit immediately provide notice to the regulatory authority of the consummation of the transfer, assignment, or sale of permit rights.

On September 15, 1987, as part of an informal amendment package submittal and in reply to OSM's December 23, 1985 letter, Wyoming provided an explanation of the State's procedures for processing transfers (Administrative Record No. WY–12–20). At the time of DEQ/LQD's final signature on a permit transfer form, the permit is transferred in the eyes of the State. The transferor's bond is dropped, the transferee's bond becomes immediately effective, and the transferee is fully responsible for all permit requirements. Because of this State procedure, the transferor and transferee make the final signature of the bond transfer form the act that consummates the transfer of permit rights. Since the State is a participant in this process, it is fully aware of the consummation of the transfer and no further notification is necessary. Based on this clarification the Director finds that the State program is no less effective than the Federal regulations at 30 CFR 774.17(e)(2).

*18. Chapter XIV, Section 1(a), Significant Permit Revisions*

Wyoming proposes to revise chapter XIV, section 1(a) to provide that "[a] permit may be revised, upon approval by the administrator, if the operator submits a request to the division. Significant revisions are those which constitute a change described in section 2 of this chapter. Any permit, except for surface coal mining permits, may be revised by identifying alterations to the mining or reclamation plan in the annual report or addendum thereto, or by obtaining prior approval from the department, at the non-coal operator's discretion." Chapter XIV, section 2 establishes the criteria to identify significant revisions for which the public notice requirements apply. Chapter XIV, section 4 establishes the time frames for processing and approving or disapproving significant revisions.

Section 511(a)(1) of SMCRA and Federal regulation 30 CFR 774.13(a) provides that during the term of a permit, the permittee may submit an application to the regulatory authority for a revision of the permit. Section 511(a)(2) of SMCRA and 30 CFR 774.13(b)(1) requires the regulatory authority to establish time periods within which applications for permit revisions will be approved or disapproved. Section 511(a)(2) of SMCRA and 30 CFR 774.13(b)(2) requires the regulatory authority to establish criteria for which the public notice requirements apply and requires that, at a minimum, the public notice requirements apply to significant revisions.

In addition, section 511(a)(2) provides, in part, that "[a]n application for a revision shall not be approved unless the regulatory authority finds that reclamation as required by this Act and the State or Federal program can be accomplished under the revised reclamation plan." The Federal regulations at 30 CFR 774.13(c) implement the requirements of section 511(a)(2) of SMCRA and provide that no application for a permit revision shall be approved "unless the application demonstrates and the regulatory authority finds that reclamation as required by the Act and the regulatory program can be accomplished, findings set out at 30 CFR 773.15(c) pertinent to the proposed revision are met and the application complies with all requirements of the Act and the regulatory program." Finally, 30 CFR 774.15(a)(1) requires, in part, that the regulatory authority review an application for a permit revision and issue a written decision, within a reasonable time set by the regulatory authority, regarding the proposed revision.

Three problems have been identified with regard to the State's proposed revisions for significant permit revisions.

First, the State's application requirements for significant revisions are located at chapter XIV, section 1(d) but are not referenced in section 1(a) governing permit revisions. Such a reference is necessary.

Second, chapter XIV, section 3(a), the public notice and hearing requirements, incorrectly references section 1(b), non-significant revisions, rather than section 1(d), the significant revision application requirements.

Third, the State rule provides that any permit except surface coal mining permits, may be revised in an alternative manner, at the non-coal operator's discretion. While it is implied by the phrase "at the non-coal operator's discretion," the opening phrase "any permit except surface coal mining permits" does not clearly include

underground coal mining permits. The proposed rule must be modified in order to clarify that the alternative manner of permit revision does not apply to coal mining operations, whether surface or underground.

The Director finds that Wyoming's proposed revision to chapter XIV, section 1(a) is no less effective than the counterpart Federal regulations and is approving the change. However, the Director is requiring Wyoming to amend its program to:

(1) Include a reference to chapter XIV, section 1(d) in section 1(a);

(2) Correct the cross reference in chapter XIV, section 3(a) to read section 1(d) rather than 1(b); and

(3) Include underground coal mining permits in its exception to alternative methods of permit revision.

*19. Chapter XIV, Section 1(b), Non-Significant Revisions*

The State proposes to revise chapter XIV, section 1(b) to provide that non-significant revisions shall be submitted in a format approved by the administrator. If promptly filed, and unless notified by the administrator to delay, the operator may initiate the proposed change within 72 hours of filing.

As set forth in finding 18 above, dealing with significant permit revisions, the counterpart Federal provisions regarding permit revisions are found at section 511 of SMCRA and 30 CFR 774.13 and 773.15 of the Federal regulations.

The September 28, 1983, preamble to the Federal regulations governing permit revisions made clear that all permit revisions, whether significant or not, must be based on written findings and subject to administrative and judicial review (48 FR 44344, 44376). "Under the final rule, the regulatory authority will establish the guidelines for revisions. However, all revisions must be approved and incorporated into the permit since they are changes to the document" (*Id.* at 44377). The proposed State rule does not require "written approval" of a proposed permit revision prior to implementation nor does it require the findings specified in section 511(a)(2) of SMCRA and 30 CFR 774.13(c) of the Federal regulations. Therefore, the Director finds that Wyoming's proposed rule at chapter XIV, section 1(b) is less effective than the counterpart Federal provisions and is not approving the proposed change. Specifically, the Director is not approving the sentence which states that "[i]f promptly filed, and unless notified by the Administrator to delay, the operator may initiate the proposed change within 72 hours of filing." As a result of the Director's finding, all applications for permit revisions, whether significant or non-significant, are subject to the applicable decision-making criteria set out at W.S. 35–11–406 and applicable State regulation.

*20. Chapter XIV, Section 1(c), Incidental Changes and Chapter I, Section 2(bu), Definition of "Revised Mining or Reclamation Operations"*

Wyoming proposes to revise chapter XIV, section 1(c) to provide that incidental changes which are not categorized under the significant or non-significant provisions of this section shall be noted in the annual report.

The Federal regulations do not contain a direct counterpart to the proposed State rule. However, as set forth in findings 18 and 19 above, dealing with significant and non-significant permit revisions respectively, Federal provisions at section 511 of SMCRA and 30 CFR 774.13 and 774.15 of the Federal regulations require the regulatory authority to review applications for permit revisions and make applicable written findings prior to an operator's initiation of proposed revisions. Moreover, as set forth in finding 19 above, the September 28, 1983, preamble to the Federal regulations governing permit revisions made clear that all permit revisions, whether significant or not, must be based on written findings and subject to administrative and judicial review (48 FR 44344, 44376).

The proposed State rule governing incidental changes does not require review of the proposed change by the regulatory authority prior to an operator's implementation of so-called incidental changes to the permit. Nor does the proposed rule require any findings by the regulatory authority prior to an operator's implementation of incidental changes. Therefore, the Director finds the proposed State rule at chapter XIV, section 1(c) to be less effective than the Federal regulations and is not approving the proposed rule.

In addition, because the Director is not approving the concept of incidental operation changes, Wyoming's proposed revision to the definition of "revised mining or reclamation operations" at chapter I, section 2(bu) cannot be approved. As proposed the term means "except for incidental operation changes, mining and/or reclamation operations conducted during the term of a permit which differ from those operations described in the original mine permit application and approved under the original permit." The phrase "except for incidental operation changes" renders the revised definition less effective than the Federal regulations. Therefore, the Director is not approving the proposed addition of the phrase "except for incidental operation changes" to the existing definition of "revised mining or reclamation operations."

*21. Chapter XVII, Section 2, Enforcement*

Wyoming proposes to amend its rules at chapter XVII, section 2 to allow the use of minor violations in the State's enforcement program. As proposed, minor violations will be noted in the inspection report along with required abatement measures and an abatement time not to exceed 35 days. A handwritten description of the minor violation, containing the information specified at chapter XVII, section 2(g), will be given to the operator on site. Examples of minor violations that will be identified in the inspection report, but may or may not be subject to formal notice of violation, are listed at chapter XVII, section 2 (f)(i) through (f)(ix). Only those violations listed at that section may be noted in an inspection report. A formal notice of violation will be issued for all other violations.

Pursuant to the proposed rules at chapter XVII, section 2(b), formal notices of violation will be routinely issued where site conditions constitute an existing or potential danger to the health and safety of the public or cause or can be expected to cause environmental degradation. Formal notices of violation will also be issued when the minor violation is not satisfactorily resolved within the time frame specified, as long as the failure to resolve the minor violation is not due to lack of diligence. If the reason is lack of diligence, a failure-to-abate cessation order will be issued. The total abatement time where a minor violation has been modified to formal notice of violation shall not exceed 90 days.

The first sentence of the proposed rules at chaper XVII, section 2(e) requires that the failure to abate a minor violation will result in the issuance of a formal notice of violation and assessment of a civil penalty. This sentence appears to conflict with the requirements of chapter XVII, section 2(b), referred to above, which provide that a formal notice of violation will be issued for failure to abate a minor violation only where the failure to abate was not due to a lack of diligence. If there is such a lack of diligence on the part of the operator, then chapter XVII, section 2(b) requires that a failure to abate cessation order, and not a formal

notice of violation, be issued. The Director is approving these rules based on the interpretation that the provisions of chapter XVII, section 2(b) and section 2(g) when read in conjunction with one another, require that, where a permittee fails to abate a minor violation within the prescribed time, either a formal notice of violation must be issued and a civil penalty assessed (where the failure to abate is not due to a lack of diligence) or a failure to abate cessation order must be issued (where the failure to abate is due to a lack of diligence).

Civil penalties will not be issued to minor violations. However, they will be reviewed to determine if a civil penalty would be appropriate. If it is found a civil penalty is appropriate, the minor violation will be upgraded to a formal notice of violation and a formal assessment issued. In addition, if a formal notice of violation is issued to an operator for his failure to abate a minor violation noted in an inspection report, the assessment of a civil penalty is mandatory pursuant to proposed chapter XVII, section 2(e).

In addition to the above-mentioned Wyoming provisions regarding enforcement, W.S. 35–11–437(a)(i) requires the Wyoming regulatory authority to issue a cessation order covering the relevant portion of mining operations and impose any necessary affirmative obligations where it is determined that a condition or practice exists, or a violation is occurring, which creates an imminent danger to the public or which is causing or may be reasonably expected to cause significant, imminent environmental harm to land, air or water resources. The Wyoming regulatory authority is also required, pursuant to W.S. 35–11–437(a)(ii), to issue a cessation order covering the relevant portion of mining operations and impose any necessary affirmative obligations where a violation has not been abated within the time specified in a formal notice of violation.

As discussed in the March 20, 1984 **Federal Register** notice approving the use of minor violations in Pennsylvania (49 FR 10253, 10254), the important consideration is not what method the State uses to cite violations, but that its method provides the same or similar sanctions for violations as provided by Federal regulation. Any method approved by OSM must incorporate the same or similar enforcement sanctions for any observed violation. The only difference between enforcement sanctions for Wyoming's minor violations and its formal notices of violations is that minor violations are not immediately tracked for withholding permit approvals and other permit actions. OSM has determined that this difference does not render Wyoming's system inconsistent with Federal standards in that these violations must be fully corrected within 35 days or be cited in a notice of violation which is immediately docketed for permit processing and enforcement related actions. The proposed system does not violate the approved program, but assists it in making this finding for minor violations that can be fully corrected in a short time and would therefore fall under the category of being satisfactorily corrected.

Based on the above discussion, the Director finds that this proposed rule is consistent with and no less stringent than the requirements of SMCRA and the regulations adopted pursuant to SMCRA regarding enforcement.

Additionally, either Wyoming's minor violation or formal notice of violation can be an analog to the Federal notice of violation. Where the Federal notice of violation allows up to 90 days for abatement of any condition not requiring a cessation order, the State's dual system places the same maximum of 90 days for abatement of a condition cited initially in a notice of violation or a combination of a minor violation followed by a notice of violation. Therefore, the maximum time allowed for abatement of violations not requiring cessation orders is the same in both Wyoming's rules and the Federal Regulations. The Director finds that the State's methods for citing a violation that does not require a cessation order are no less effective than Federal regulation 30 CFR 843.12 and no less stringent than Section 521(a) of SMCRA.

*22. Chapter XVII, Section 2(e), Pattern of Violation*

Wyoming proposes to amend its rules at chapter XVII, section 2 to set forth criteria for considering minor violations in pattern-of-violation determinations.

Chapter XVII, section 2(e) provides, in part, that operators who consistently receive minor violations (more than two in a 12 month period) for similar infractions will be issued a formal notice of violation for subsequent similar violations for the remainder of the period. In addition, once an operator receives two similar minor violations within a 12 month period, any subsequent similar violations will be counted toward a pattern of violations. Federal regulation 30 CFR 843.13 requires that all violations of a similar nature be reviewed in determining a pattern of violations.

This proposal is similar to a proposal by West Virginia that was reviewed and approved by OSM on July 11, 1985 (50 FR 28324, 28336). Like the approved West Virginia provisions, the Wyoming proposed regulations provide that minor violations will not be considered in determining a pattern of violations unless such minor violations are upgraded to a formal notice of violation or a failure to abate cessation order. Also similar to the West Virginia provisions, any subsequent violation by an operator which would otherwise meet the criteria of a minor violation may not be noted in an inspection report and considered a minor violation if the operator has received more than two minor violations for similar infractions within a twelve month period. In that situation, unless the State program requires the issuance of a cessation order, a formal notice of violation must be issued for any subsequent similar infractions for the remainder of the period.

Although minor violations are not considered in determining patterns of violations, this difference does not render the proposed State system less effective than the Federal requirements. Since minor violations must either be abated in 35 days or upgraded to a notice of violation or cessation order, any minor violation that is not abated within 35 days will be included in a pattern of violations determination. Under the proposed system, a minor violation cannot be issued when there is a history of repeat violations which, as defined by the State, is two minor violations for similar infractions in a 12 month period. Under such circumstances, the issuance of an inspection report notice for a minor violation would be prohibited. Once an operator receives two similar minor violations within a 12 month period, any subsequent similar violations will be counted toward a pattern of violations. Therefore, the Director finds that the proposed State rule at chapter XVII, section 2(e) setting forth criteria for considering minor violations in pattern of violations determinations is no less effective than the Federal regulations at 30 CFR 843.13.

## IV. Summary and Disposition of Comments

*Public Comments*

The Director solicited public comment on the proposed amendment and provided opportunity for a public hearing. No comments were received, and the scheduled public hearing was not held because no one requested an opportunity to provide testimony.

*Agency Comments*

Pursuant to section 503(b) of SMCRA and the implementing regulations at 30 CFR 732.17(h)(11)(i), comments were solicited from various Federal agencies with an actual or potential interest in the Wyoming program. A summary of the comments and the Director's responses to them appear below:

1. The Bureau of Reclamation, Mine Safety and Health Administration, U.S. Army Corps of Engineers and Soil Conservation Service responded with no comment or no substantive comment (Administrative Record Nos. WY–12–5 and WY–12–18).

2. The Bureau of Land Management (BLM) responded with numerous comments on the amendment package Administrative Record No. WY–12–5). However, a significant portion of BLM's comments were on portions of the State's rules that were not being revised. These rules have previously been approved as being consistent with and no less effective than the Federal regulations. Because no changes were proposed to these rules, the Director does not consider them the subject of this amendment package and is not discussing those comments.

In those rules which were amended, the BLM identified several terms that they felt were not defined and used ambiguously. The terms, used throughout the rules, included "proposed permit", "proposed permit area", "by extrapolation adjacent areas", "test boring", "clay or soft rock if any in the mined coal overlying and underlying strata", "immediately around", "mining or reclamation plan", "type and amount of bond", "underground mining permit", "surface coal mining permit", "core samplings", and "contiguous." The Director is not requiring Wyoming to revise its rules in response to BLM's comments and recommendations, because Wyoming has incorporated definitions and language substantively identical to the corresponding Federal regulations. The BLM also found the inclusion of hard rock mining regulations in the State's rules was confusing and recommended they be put in separate sections. The Director is not requiring the State to reorganize rules because the organization of the rules is a State's prerogative not subject to Federal regulation and does not conflict with State program requirements subject to SMCRA and pursuant Federal regulations.

The BLM commented that several of the proposed rules should include and/or reference the Federal statutory requirements for Federal coal resource exploration and development. The Director is not requiring Wyoming to amend its proposed rules to include or reference the Federal statutory requirements because the corresponding Federal regulations do not include such language.

The BLM felt that the State's proposed definition at chapter I, section 2(bu) of "revised mining or reclamation operations" does little to clarify the terms "incidental operation changes" or "which differ". The Director has determined that proposed definition is less effective than the Federal regulations because of the lack of a definition of "incidental operation changes" and is not approving the definition. See fining No. 20 of this notice.

In chapter II, section 3, the BLM felt the use of the term "contiguous" (section 3(a)(i)(D)) conflicted with the term "adjacent area" (section 3(a)(vi)(B)). The Director notes that the terms, as used in the State program, are directly comparable to their use in the Federal regulations at 30 CFR 778.13(h) and 780.22(b)(1), respectively. Therefore, the Director is not requiring a change. The BLM also expressed concern that the phrase "any aquifer below the adversely impacted" at chapter II, section 3(a)(vi)(B) is unnecessarily broad and vague. The Director believes the BLM is referring to the phrase "any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining." This is identical to the phrase used in Federal regulation 30 CFR 780.22(b)(1). The Director does not consider the rule unnecessarily broad or vague and is not requiring a change. Finally, BLM felt that the State should, at chapter II, section 3(b)(xvi)(A), require the nature and extent of any coal resources underlying any proposed soil piles. This State rule, which is applicable to excess spoil disposal sites, is identical to the Federal regulations at 30 CFR 780.35(b)(1) that does not require identification of coal resources. The Director cannot require the State to provide information beyond that required in the Federal regulations and is not requiring a change.

The BLM in reviewing chapter VII, the State's underground mining rules, felt that section 1(c) should be modified to include a requirement that the application contain the Federal coal lease number. The Director notes chapter VII requires compliance with chapter II, section 3. Section 3(a)(iii), in turn, requires that each application include statements and documents in compliance with the Wyoming Act supporting the applicants right-of-entry to mine. Such documents would include the Federal coal lease. In addition, the State rules are substantively identical to the Federal requirements at 30 CFR 778.15 and no further change is necessary. The BLM also felt the requirement at chapter VII, section 1(c)(iii)(A), for an underground mining application to include a description of the mining methods, was duplicative of the Federal resources recovery and protection plan. While this may be true, the State requirement is similar to the Federal requirement at 30 CFR 784.11(a) and must be included in the State program to be consistent with the Federal program.

At chapter XI, section 1, governing exploration removing less than 250 tons of coal, BLM stated the notice of intent to explore must include the authority to explore lands identified in the notice. The Wyoming rules governing exploration removing less than 250 tons are substantively identical to the Federal regulations at 30 CFR 772.11. Because the Federal regulations do not contain such a requirement the Director cannot require Wyoming to include such a provision. The Director notes that other State and Federal laws governing trespass are not superseded by these rules. Therefore, while the notice of intent may be silent on authority to enter lands, this would not waive the need for an applicant to gain the necessary right of entry for private or public land.

The BLM stated that at a minimum, the public notice requirements at chapter XIII, section 1(a)(ii)(B) must also include notification of the BLM, to ensure proper coordination of operations which either include, or impact Federal lands. The Director finds that the State rule, which is substantially identical to 30 CFR 773.13(a)(3)(ii), requires notification of Federal agencies with jurisdiction over or an interest in a proposed permit area. This would include the BLM. However, if the BLM is concerned that they are not receiving notification, the BLM can contact the State and request special notification of all permit applications which could impact Federal lands.

At chapter XIV, governing permit revisions, the BLM stated that section 1(b) should be revised to clarify that non-significant revisions to mining plans which include Federal resources, must be submitted to BLM. The Director, as discussed in finding 19, is not approving the proposed revisions to this rule. However, the Federal regulations at 30 CFR part 774 do not require submission of non-significant revisions to the BLM. Therefore, this could not be required of the State. At chapter XIV, section 1(d), the significant revision application

requirements, BLM recommended that the rule should be revised to read "each application for a significant revision shall contain." As discussed in finding 18, the Director is requiring Wyoming to reference section 1(d) in section 1(a). This will address BLM's concern. Next, BLM stated that chapter XIV, section 1(d)(iii)(B), that requires significant revision applications to contain the names and last known addresses of the owners of record of the surface and mineral rights, must be revised to read "of owners of record of surface and mineral rights of the lands, including for Federal coal resources, the Federal coal lease number, of the land covered by the permit." The Director notes that the counterpart Federal regulations at 30 CFR 774.13 lack such a requirement and therefore the Director cannot require Wyoming to include such a provision. Finally, BLM questioned whether all eight of the factors in chapter XIV, section 2(b)(i) to (viii) used in determinig whether a revision was significant are equally applicable to both coal and non-coal operations. The Director is only concerned with the rules applicability to coal mining operations and concludes that the applicability of these rules to non-coal operations is beyond the scope of this rulemaking.

The BLM felt the terms bond, area bond and incremental bond as used in the proposed rules at chapter XVI, section 1(a) are ambiguous. The Director is not requiring Wyoming to amend its proposed rules in response to this comment because the terms are defined in chapter I, section 2 and chapter XII, section 2 and are consistent with the Federal regulations at 30 CFR 800.40. In chapter XVI, the BLM also felt the phrase "type and amount of bond," as used in section 1(a)(iv) was confusing. BLM suggested that the State really has one type of bond, a reclamation/environmental performance bond, and that this bond can be increased or decreased in several ways according to circumstances. OSM agrees in part with this statement. However, the Federal regulations allow flexibility in the types of bonds a State can accept. Under the Wyoming program the State has elected to accept surety bonds, self bonds, certificates-of-deposit, cash, or irrevocable letters-of-credit as bonds. This rule refers to these various forms of bond and is not inconsistent with Federal regulations.

Finally, the BLM questioned the authority to hold as confidential the identity of a person providing information on an alleged complaint and the authority to allow that person to accompany State inspectors on site inspections. The Director has determined that the proposed State language at chapter XVII, section 1(d) and (e) are substantively identical to the Federal regulations at 30 CFR 842.12(b) and (c) that allow for such confidentiality, and therefore, cannot require Wyoming to amend its proposed language.

3. The U.S. Fish and Wildlife Service (USFWS) expressed two concerns with proposed Wyoming rules at chapter IV, section 3(d)(vi) (Administrative Record No. WY–12–5). First, the USFWS stated that the proposed language allowing the State to approve alternate revegetation standards gives Wyoming great discretion and where the postmining land use includes wildlife, concurrence of the Wyoming Game and Fish Department (WGFD) should be obtained prior to approval of the alternate revegetation standard. The USFWS' second concern was regarding the replacement requirements for shrub restoration and the ability to achieve restoration of this important wildlife habitat. Specifically, they were concerned that the Wyoming program at chapter IV, section 3(d)(vi)(A) addresses shrub restoration as a goal, not a standard. They recommended that the DEQ/LQD work closely with WGFD to achieve a viable shrub standard that will assure restoration of this important wildlife cover type. The Director notes that in accordance 30 CFR 732.17(d), OSM is in the process of notifying Wyoming of the need to amend its program to be no less effective than the Federal requirements at 30 CFR 816.116(b)(3)(i). The Federal regulation requires that minimum stocking and planting arrangements for areas developed as wildlife habitat be specified by the regulatory authority after consultation with and approval by the State agencies responsible for the administration of wildlife programs. This will address the USFWS' concerns. Therefore, the Director is not requiring the State to amend its program at this time.

4. The Agricultural Research Service (ARS) provided comments on several sections of the proposed rules (Administrative Record No. WY–12–5). At chapter II, section 3(a)(vi), which requires a description of the geology of the permit area down to including the stratum immediately below the coal seam or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining, ARS questioned how the State would determine or evaluate whether the aquifer might be impacted. The ARS recommended ending the rule after "the lowest coal to be mined". The Director notes that the proposed language in the State rule is in response to a deficiency identified in the December 23, 1985, letter sent to the State in accordance with 30 CFR 732.17(d). The proposed rule is substantially identical to Federal regulation 30 CFR 780/784.22(b)(1) and is no less effective. The geologic information obtained between the lowest coal seam to be mined and any aquifer below that seam provides necessary information to evaluate the potential for impacts. For this reason the Director is not requiring Wyoming to revise its rules in response to ARS' comment.

The ARS questioned the ability to demonstrate by analysis or test plots that substitute topsoil material will remain suitable through time and questioned whether the State had provided adequate criteria to make such a demonstration. While such concerns may be valid, they are beyond the scope of this rulemaking. The Director has determined that the proposed rules are consistent with and no less effective than the corresponding Federal regulations and no further change is necessary. The Director cannot require implementation of rules that are more stringent than the Federal program.

The ARS recommended substitution of the term "practice" for the term "work" in the revegetation rules at chapter IV, section 3(d)(vi), governing bond release. The Director is not requiring Wyoming to revise its rule in response to this comment because the State has incorporated language substantially identical to the corresponding Federal regulations at 30 CFR 816.116(c)(1). The Director cannot require language different from that used in the Federal regulations.

Finally, the ARS expressed concern with the language in the surface water and groundwater monitoring rules in chapter IV, section 3(i). They felt that monitoring to determine "the extent of disturbance to the hydrologic balance" should be reworded because the term disturbance, as used, can be confused with mining disturbance. The ARS recommended replacing the word "extent" with the word "impact". The rule would then require monitoring to determine the impact of disturbance on the hydrologic balance. No change has been proposed to this State rule, that was previously determined to be no less effective than the Federal counterpart and is not being evaluated in this rulemaking. The Director does not consider this rule the subject of this amendment package and is not discussing the comment further.

5. As required by 30 CFR 732.17(h)(4), OSM provided the Wyoming State Historic Preservation Officer and the Advisory Council on Historic Preservation an opportunity to comment on the proposed amendment. No comments were received.

*Environmental Protection Agency Concurrence*

Under 30 CFR 732.17(h)(11)(ii), the Director is required to obtain the written concurrence of the Administrator of the Environmental Protection Agency (EPA) with respect to any provisions of a State program amendment which related to air or water quality standards promulgated under authority of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or the Clean Air Act (42 U.S.C. 7401 *et seq.*). EPA reviewed Wyoming's amendment and on May 16, 1989, concurred that the proposed amendments to Wyoming's program demonstrate the legal authority, administrative ability, and technical conformity with the controlling federal National Pollutant Discharge Elimination System regulations necessary to maintain water quality standards promulgated under the authority of the Clean Water Act (33 U.S.C. 1251 *et seq.*) (Administrative Record No. WY–12–5).

**V. Director's Decision**

With the exception of the provisions discussed in findings 4, 19, and 20, the Director is approving Wyoming's program amendment as submitted on March 31, 1989, and revised and clarified on June 21, July 27, August 14, August 22, and October 27, 1989.

As discussed in findings 1, 6, 12, and 14, certain revisions to the Wyoming program set out in the amendment have satisfied the requirements of 30 CFR 950.16 (a), (b), (d), (e), (g), (j), (o), (p), (q), and (r). The Director is amending the Federal regulations at 30 CFR 950.16 to reflect these revisions.

As discussed respectively in findings 4, 19, and 20, the Director is not approving (1) chapter II, section 3(b)(xvi)(D), the stability analysis waiver; (2) chapter XIV, section 1(b), the rules for processing non-significant revisions, to the extent that it includes the sentence: "[i]f promptly filed, and unless notified by the Administrator to delay, the operator may initiate the proposed change within 72 hours of filing."; (3) chapter XIV, section 1(c), the rules for processing incidental changes; and (4) chapter I, section 2(bu), the definition of "revised mining or reclamation operations," to the extent that it included the phrase "except for incidental operation changes."

As discussed in findings 2, 3, 9, 10, 13, 15, 18, and 19, respectively, the Director is requiring Wyoming to submit further regulatory amendments regarding (1) chapter II, section 3(a)(vi)(A), geologic description application requirements; (2) chapter II, section 3(a)(vi)(C)(II), maps and cross-sections application requirements; (3) chapter IV, section (3)(i), water monitoring requirements; (4) chapter IV, section (3)(u), protection of the hydrologic balance; (5) chapter XI, section 3(b), administrative and judicial review of decisions on exploration licenses; (6) chapter XIII, section 1(a)(v)(C), prohibitions and limitations on mining in certain areas; and (7) chapter XIV, section 1(a), significant permit revisions. The Director is requiring further amendment of these proposed rules to achieve consistency with the Federal regulations.

The Federal regulations at 30 CFR part 950 codifying decisions concerning the Wyoming program are being amended to implement this decision. The Director is approving these regulations with the provision that they be fully promulgated in a form identical to that submitted to and reviewed by OSM. However, the Director may require further changes in the future as a result of Federal regulatory revisions, court decisions, and OSM oversight of the Wyoming program. This final rule is being made effective immediately to expedite the State program amendment process and to encourage States to bring their programs into conformity with the Federal standards without undue delay. Consistency of State and Federal standards is required by SMCRA.

*Effect of Director's Decision*

Section 503 of SMCRA provides that a State may not exercise jurisdiction under SMCRA unless the State program is approved by the Secretary. Similarly, 30 CFR 732.17(a) requires that any alteration of an approved State program be submitted to OSM for review as a program amendment. The Federal regulations at 30 CFR 732.17(g) prohibit any unilateral changes to approved State program. Thus any changes to the program are not enforceable by the State until approved by the Director. The Director does not recognize, and fully expects Wyoming to remove any rules that have already been promulgated by the State, but not approved by the Director. In the oversight of the Wyoming program, the Director will recognize only the statutes, regulations and other materials approved by OSM, together with any consistent implementing policies, directives and other materials, and will require the enforcement by Wyoming of only such provisions.

**VI. Procedural Determinations**

*National Environmental Policy Act*

The Secretary has determined that, pursuant to section 702(d) of SMCRA, 30 U.S.C. 1292(d), no environmental impact statement need be prepared on this rulemaking.

*Executive Order 12291 and the Regulatory Flexibility Act*

On July 12, 1984, the Office of Management and Budget (OMB) granted OSM an exemption from sections 3, 4, 7, and 8 of Executive Order 12291 for actions directly related to approval or conditional approval of State regulatory programs. Therefore, for this action OSM is exempt from the requirement to prepare a regulatory impact analysis, and this action does not require regulatory review by OMB. The Department of the Interior has determined that this rule will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). This rule will not impose any new requirements; rather, it will ensure that existing requirements established by SMCRA and the Federal regulations will be met by the State.

*Paper Reduction Act*

This rule does not contain information collection requirements which require approval by OMB under 44 U.S.C. 3507.

**List of Subjects in 30 CFR Part 950**

Intergovernmental relations, Surface mining, Underground mining.

Dated: July 18, 1990.

**Raymond L. Lowrie,**

*Assistant Director, Western Field Operations.*

For the reasons set out in the preamble, title 30, chapter VII, subchapter T of the Code of Federal Regulations is amended as set forth below.

**PART 950—WYOMING**

1. The authority citation for part 950 continues to read as follows:

**Authority:** 30 U.S.C. 1201 *et seq.*

2. Section 950.15 is amended by adding a new paragraph (k) as follows:

**§ 950.15 Approval of regulatory program amendments.**

* * * * *

(k) With the exceptions of chapter I, section 2(bu), the definition of "revised mining or reclamation operations" to the extent it includes the phrase "except for

incidental operation changes;" chapter II, section 3(b)(xvi)(D), excess spoil stability analysis waiver; chapter XIV, section 1(b), non-significant permit revisions, to the extent it includes the sentence "[i]f promptly filed and unless notified by the Administrator to delay, the operator may initiate the proposed change."; and chapter XIV, section 1(c), incidental changes, amendments to the following sections of the rules and regulations of the Department of Environmental Quality, Land Quality Division, as submitted March 31, 1989, and as modified and clarified on June 21, July 27, August 14, August 22, and October 27, 1989, are approved effective July 25, 1990: Chapter I, section 2, definitions; chapter II, section 2, general application content requirements; chapter II, section 3, special application content requirements for surface coal mining operations; chapter IV, section 2, general environmental protection performance standards; chapter IV, section 3, special environmental protection performance standards applicable to surface coal mining and reclamation operations; chapter V, section 2, performance standards for prime farmland; chapter V, section 6, performance standards for auger mining; chapter V, section 7, performance standards for remining; chapter VI, section 3, public notice of blasting schedule; chapter VI, section 4, blasting standards; chapter VII, section 1 (30 CFR part 784), underground mining permit application content requirements; chapter VII, section 4, surface owner protection; chapter IX, section 1, content of variance requests for surface coal mining operations; chapter IX, section 2, procedures for variances for surface coal mining operations; chapter IX, section 3, criteria for variances from approximate original contour; chapter XI, section 1, general requirements for coal exploration of less than 250 tons; chapter XI, section 3, approval of applications for exploration of more than 250 tons or in an area designated as unsuitable for surface coal mining operations; chapter XII, section 1, self-bonding definitions; chapter XII, section 2, initial application to self bond; chapter XII, section 3, approval or denial of operator's self-bond application; chapter XII, section 4, renewal of self bonds; chapter XII, section 6, requirements for forfeiture and release of self bond; chapter XIII, section 1, permitting procedures; chapter XIV, section 1, submittal of revisions; chapter XIV, section 2, criteria for public notice requirements; chapter XVI, section 1, request for bond release; chapter XVI, section 3, inspection of the permit area for bond release; chapter XVI, section 4, notification for bond release; chapter XVII, section 1, inspections; chapter XVII, section 2, enforcement; chapter XVIII, section 1, definitions for designation of areas unsuitable for surface coal mining; and chapter XVIII, section 3, processing petitions for designation of areas unsuitable for surface coal mining.

3. In § 950.16, paragraphs (o), (p), (q), and (r) are removed and paragraphs (a), (b), (c), (d), (e), (g), and (j) are revised to read:

**§ 950.16 Required program amendments.**

* * * * *

(a) By September 24, 1990, Wyoming shall submit a revision to its permanent program rules at chapter XI, section 3(b) or otherwise propose to amend its program to give persons adversely affected by the disapproval of an exploration license the same opportunity for administrative and judicial review afforded persons adversely affected by an approval.

(b) By September 24, 1990, Wyoming shall submit a revision to its permanent program rules at chapter II, section 3(a)(vi)(A) or otherwise propose to amend its program to require that the geologic description required in permit applications for surface and underground coal mining operations include the areal and structural geology of the permit and adjacent areas, and other parameters which influence the required reclamation and the occurrence, availability, movement, quantity, and quality of potentially impacted surface and ground waters.

(c) By September 24, 1990, Wyoming shall submit a revision to its permanent program rules at chapter II, section 3(a)(vi)(C)(II) or otherwise propose to amend its program to require that the maps and cross-sections required in permit applications for surface and underground coal mining operations show the strike and dip of the coal seam to be mined within the proposed permit area.

(d) By September 24, 1990, Wyoming shall submit a revision to its permanent program rules at chapter IV, section 3(i) or otherwise propose to amend its program to require a quarterly ground water monitoring for surface and underground coal mining operations.

(e) By September 24, 1990, Wyoming shall submit a revision to its permanent program rules at chapter IV, section 3(u) or otherwise propose to amend its program to give the State the authority to require additional preventive, remedial, or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented with regard to both surface and underground coal mining operations.

* * * * *

(g) By September 24, 1990, Wyoming shall submit a revision to its permanent program rules at chapter XIII, section 1(a)(v)(C) to reinstate the word "any" in front of the phrase "places included in the National Register of Historic Places."

* * * * *

(j) By September 24, 1990, Wyoming shall submit a revision to its permanent program rules at chapter XIV, section 1(a) or otherwise propose to amend its program to include a reference to chapter XIV, section 1(d) in section 1(a); correct the cross reference in chapter XIV, section 3(a) to read section 1(d) rather than 1(b); and include underground coal mining permits in its exception to alternative methods of permit revision.

* * * * *

[FR Doc. 90-17336 Filed 7-24-90; 8:45 am]
BILLING CODE 4310-05-M

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## DEPARTMENT OF TRANSPORTATION

### Office of the Secretary

### 49 CFR Part 1

**[OST Docket No. 1; Amdt. 1-233]**

### Organization and Delegation of Powers and Duties

**AGENCY:** U.S. Coast Guard, Department of Transportation (DOT), Office of the Secretary.

**ACTION:** Final rule.

**SUMMARY:** The Commandant, United States Coast Guard, is delegated the authority under chapter 125 of title 46 U.S.C. to establish and maintain a vessel identification system and to charge fees to persons making information available to or requesting information from the system. The Code of Federal Regulations does not reflect this delegation, and therefore a change is necessary.

**EFFECTIVE DATE:** July 25, 1990.

**FOR FURTHER INFORMATION CONTACT:** Joanne Petrie, Office of the General Counsel, C-50, (202) 366-9307, Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590, or CDR Gregory S. Cope, Office of

Marine Safety, Security and Environmental Protection, (G–MP–4), (202) 267–0266, U.S. Coast Guard Headquarters, 2100 Second Street, SW., Washington, DC 20593.

**SUPPLEMENTARY INFORMATION:** This document delegates to the Commandant, United States Coast Guard, authority under chapter 125 of title 46 U.S.C. to establish and maintain a vessel identification system and to charge fees to persons making information available to or requesting information from the system. The Code of Federal Regulations does not reflect this delegation, and therefore a change is necessary.

Since this amendment relates to Departmental management, procedures, and practice, notice and comment on it are unnecessary and it may be made effective in fewer than thirty days after publication in the **Federal Register**. Therefore, the delegation is effective upon publication in the **Federal Register**.

In accordance with the Secretary's authority, the following change is made.

**List of Subjects in 49 CFR Part 1**

Authority delegations, (Government agencies), Organization and functions (Government agencies).

In consideration of the foregoing, part 1 of title 49, Code of Federal Regulations, is amended to read as follows:

## PART 1—AMENDED

1. The authority citation for part 1 continues to read as follows:

**Authority:** 49 U.S.C. 322.

2. Section 1.46 is amended by adding a new paragraph (ss) to read as follows:

**§ 1.46 Delegations to Commandant of the Coast Guard.**

* * * * *

(ss) Carry out the functions and exercise the authority vested in the Secretary by chapter 125, title 46 U.S.C., to establish and maintain a vessel identification system and to charge fees to persons providing information to or requesting information from the system.

Issued on: July 6, 1990.

**Samuel K. Skinner,**

*Secretary of Transportation.*

[FR Doc. 90–17297 Filed 7–24–90; 8:45 am]

BILLING CODE 4910–62–M

## INTERSTATE COMMERCE COMMISSION

### 49 CFR Part 1056

**[Ex Parte No. MC–19; Sub-No. 41]**

### Practices of Motor Common Carriers of Household Goods (Limitations of Liability)

**AGENCY:** Interstate Commerce Commission.

**ACTION:** Final rule.

**SUMMARY:** The Commission is adopting a final rule to clarify its intended meaning of 49 CFR 1056.12(b)(2), as amended in a final rule adopted in its decision, *Practices of Motor Common Carriers of Household Goods*, 6 I.C.C.2d 666 (1990). The previously adopted final rule was published in the **Federal Register** at 55 FR 18729 (May 4, 1990). The clarification conforms the language in the rule to language in the decision limiting recovery on named articles of extraordinary value to the declared value of the entire shipment.

**EFFECTIVE DATE:** The rule is effective on July 25, 1990.

**FOR FURTHER INFORMATION CONTACT:** John W. Fristoe (202) 275–7844
or
Heber P. Hardy (202) 275–7148
[TDD for hearing imparied: (202) 275–1721].

**SUPPLEMENTARY INFORMATION:** Additional information is contained in the Commission decision. To purchase a copy of the full decision, write to, call or pick up in person from Dynamic Concepts, Inc., room 2229, Interstate Commerce Commission Building, Washington DC 20423, or call (202) 289–4357/4359 (DC Metropolitan area). [Assistance for the hearing impaired is available through TDD services (202) 275–1721].

**Energy and Environmental Considerations**

This action does not affect significantly either the quality of the human environment or the conservation of energy resources.

**Regulatory Flexibility Analysis**

We certify that the adoption of this final rule will not have a significant impact on a substantial number of small entities.

**List of Subjects in 49 CFR Part 1056**

Consumer protection, Moving of household goods.

**Authority:** This action is taken under the authority of 49 U.S.C 10321, 11109, 11110; and 5 U.S.C. 553.

Decided: July 17, 1990.

By the Commission, Chairman Philbin, Vice Chairman Phillips, Commissioners Simmons, Lamboley, and Emmett.

**Sidney L. Strickland, Jr.,**

*Secretary.*

For the reasons set forth in the preamble, title 49, chapter X, part 1056 of the Code of Federal Regulations is amended as follows:

## PART 1056—TRANSPORTATION OF HOUSEHOLD GOODS IN INTERSTATE OR FOREIGN COMMERCE

1. The authority citation for part 1056 continues to read as follows:

**Authority:** 49 U.S.C. 10321, 11109, 11110, and 5 U.S.C. 553.

2. Section 1056.12 is amended by revising paragraph (b)(2) to read as follows:

**§ 1056.12 Liability of carriers.**

* * * * *

(b) * * *

(2) When a shipment is released to a value greater than sixty cents (60¢) per pound, per article, liability for loss or damage may be limited to $100 per pound, per article (based upon the actual article weight), for any article included in the shipment that exceeds $100 per pound, per article in value, unless the shipper specifically notifies the carrier in writing that an identified article or articles with a value greater than $100 per pound will be included in the shipment. In such case, the shipper will be entitled to full recovery up to the declared value of the article or articles, not to exceed the declared value of the entire shipment.

* * * * *

[FR Doc. 90–17363 Filed 7–24–90; 8:45 am]

BILLING CODE 7035–01–M

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

### 50 CFR Part 672

**[Docket No. 91050–0019]**

### Groundfish of the Gulf of Alaska

**AGENCY:** National Marine Fisheries Service (NMFS), NOAA, Commerce.

**ACTION:** Notice of prohibition of retention of groundfish.

**SUMMARY:** The Director, Alaska Region, NMFS (Regional Director), is prohibiting further retention of "Other Rockfish" in the Central Regulatory Area of the Gulf of Alaska from 12 noon, Alaska Local Time (A.l.t.), July 20, 1990, through

December 31, 1990. This action is necessary to prevent the total allowable catch (TAC) for "Other Rockfish" in the Central Regulatory Area of the Gulf of Alaska from being exceeded before the end of the year. The intent of this action is to assure optimum use of groundfish while conserving "Other Rockfish" stocks.

**EFFECTIVE DATES:** 12 noon, A.l.t., July 20, 1990, through midnight, Alaska Standard Time, December 31, 1990.

**FOR FURTHER INFORMATION CONTACT:** Patsy A. Bearden, Resource Management Specialist, 907–586–7229.

**SUPPLEMENTARY INFORMATION:** The Fishery Management Plan for Groundfish of the Gulf of Alaska (FMP) governs the groundfish fishery in the exclusive economic zone in the Gulf of Alaska under the Magnuson Fishery Conservation and Management Act. Regulations implementing the FMP are at 50 CFR parts 611.92 and 672. Section 672.20(a) of the regulations establishes an optimum yield (OY) range of 116,000–800,000 metric tons (mt) for all groundfish species in the Gulf of Alaska. Total allowable catches for target species and species groups are specified annually within the OY range and apportioned among the regulatory areas and districts.

Under § 672.20(c)(3), if the Regional Director determines that the TAC for any target species in a regulatory area has been reached, the Secretary of Commerce will publish a notice in the Federal Register declaring the species or species group to be treated in the same manner as a prohibited species, as described in § 672.20(e), in that regulatory area. The 1990 TAC specified for "Other Rockfish" in the Central Regulatory Area is 7,700 mt (55 FR 3223; January 31, 1990).

The Regional Director has determined that the amount of TAC of "Other Rockfish" in the Central Regulatory Area of the Gulf of Alaska has been reached. Therefore, he is issuing this notice: (1) Requiring that "Other Rockfish" be treated in the same manner as prohibited species and (2) prohibiting retention of "Other Rockfish" by vessels in the Central Regulatory Area from noon, A.l.t., July 20, 1990, through midnight, Alaska Standard Time, December 31, 1990.

## Classification

This action is taken under § 672.20 and is in compliance with Executive Order 12291.

## List of Subjects in 50 CFR Part 672

Fisheries, reporting and recordkeeping requirements.

Authority: 16 U.S.C. 1801, *et seq.*

Dated: July 20, 1990.

**Richard H. Schaefer,**

*Director of Office of Fisheries, Conservation and Management, National Marine Fisheries Service.*

[FR Doc. 90–17381 Filed 7–20–90; 1:51 pm]

BILLING CODE 3510–22–M

# Proposed Rules

Federal Register
Vol. 55, No. 143
Wednesday, July 25, 1990

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF AGRICULTURE

### Commodity Credit Corporation

### 7 CFR Part 1496

### Procurement of Processed Agricultural Commodities for Donation

**AGENCY:** Commodity Credit Corporation, USDA.

**ACTION:** Advance notice of proposed rulemaking.

**SUMMARY:** The Commodity Credit Corporation (CCC) is giving consideration to changing the manner in which information concerning ocean freight rates and service are obtained for use in evaluating offers to sell processed agricultural commodities to CCC for donation under title II of the Agricultural Trade Development and Assistance Act of 1954 (Pub. L. 480). Under the concept being considered, CCC would amend its regulations to treat the rate and service quotations used in the bid evaluation as firm, fixed offers, generally not subject to further negotiation by the cooperating sponsor's freight forwarder/booking agent.

**DATES:** Comments should be submitted on or before September 24, 1990.

**ADDRESSES:** Send comments on this advance notice of proposed rulemaking to: Director, Commodity Operations Division, ASCS, United States Department of Agriculture (USDA) P.O. Box 2415, Washington, DC 20013.

All submissions will be available for public inspection during regular business hours in room 5755, South Building, USDA.

**FOR FURTHER INFORMATION CONTACT:** A. James Firth, Commodity Operations Division, ASCS–USDA, telephone: (202) 475–3565.

**SUPPLEMENTARY INFORMATION:** Pursuant to the authority in title II of the Agricultural Trade Development and Assistance Act of 1954 (Pub. L. 480), 7 U.S.C. 1721 *et seq.*, CCC makes agricultural commodities available for donation overseas to meet famine or other urgent or extraordinary relief requirements, combat malnutrition, especially in children, and promote economic and community development in friendly developing countries. CCC pays transportation costs to designated delivery points abroad. Private Voluntary Agencies (PVO) are utilized in furnishing most of the agricultural commodities.

CCC makes commodities available for donation overseas from its inventory or by procurement on the open market through competitive bids. CCC, through the Agricultural Stabilization and Conservation Service's Kansas City Commodity Office, procures commodities for donation under title II, Pub. L. 480 utilizing the general principle of awarding contracts on the basis of lowest landed cost to CCC. See 7 CFR 1496.5.

Currently, ocean freight rates and service information are obtained by CCC for use in its bid evaluation to determine the lowest landed cost for processed commodity procurement contract awards. Prior to the receipt of offers from commodity suppliers, CCC checks trade journal publications, published ocean freight tariffs, and other available sources of information to determine the ocean freight rates and availability of appropriate ocean transportation service. Information concerning amended tariff rate quotations and available ocean transportation service submitted directly to CCC by carriers are also used in the evaluation of offers.

After commodity contracts are awarded, the cooperating sponsors, or their designated booking agents, contract for ocean transportation. In the case of government-to-government donations, ocean carriers contract directly with the Agency for International Development's booking agent. CCC advises the cooperating sponsor or booking agent (agent) of the ocean freight rate and service that was used to determine the lowest landed cost. The agent is then required to arrange for ocean transportation at the rate used by CCC, or at a lower rate if able to do so. Thus, the rates and service used by CCC in its bid evaluations are considered to be maximum rates that are subject to negotiation by the agent with any eligible carrier.

In the past, this procedure has occasionally resulted in the purchase of some commodities to destinations for which the ocean transportation service was withdrawn or did not materialize. In addition, some carriers object to submitting offers for commodity bid evaluation purposes and later being required to further negotiate rates with freight forwarders. This procedure also allows the guidelines service to be undercut by other carriers not originally offering service. CCC program management personnel are concerned about maintaining fairness in evaluating offers while assuring that freight offers are submitted in good faith and supported by adequate service to the program.

CCC is considering a change in this procedure so as to be able to utilize firm, fixed ocean freight offers in evaluating the lowest landed cost options. It is intended that such a change would more likely assure that the lowest possible freight rates are obtained and that all carriers have a fair opportunity to participate in the program.

One method of accomplishing this result is to require that cooperate sponsors or their booking agents obtain carrier's rate and service offers on a competitive bid basis. The offer to the agent would service as the carrier's offer for freight contracting purposes since CCC is not a party to the ocean freight contract with the carrier. The invitation for bids would also require carriers to send to CCC an identical information copy of the carrier's offer which CCC would use in the commodity bid evaluation. Under this concept, both CCC and the booking agent can concurrently review identical ocean freight rate offers. The booking agent would generally be required to utilize the specific ocean carrier and its offered rate, without subsequent negotiations, that CCC determines represents the lowest landed cost to CCC.

Public comments are invited regarding the desirability and procedural aspects of implementing the above concepts. CCC will also consider other suggested concepts and procedures. In addition, CCC invites all interested parties to submit any specific suggestions, comments on pertinent experience, and any conceptual ideas related to these objectives. If CCC desires to proceed with any changes, a Notice of Proposed

Rulemaking will be published in the Federal Register.

Signed at Washington, DC, on July 19, 1990.

**Keith D. Bjerke,**

*Executive Vice President, Commodity Credit Corporation.*

[FR Doc. 90–17369 Filed 7–24–90; 8:45 am]

BILLING CODE 3410–05–M

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

### 14 CFR Chapter I

**[Summary Notice No. PR–90–18]**

### Petition for Rulemaking, Summary of Petitions Received; Dispositions of Petitions Issued

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of petitions for rulemaking received and of dispositions of prior petitions.

**SUMMARY:** Pursuant to FAA's rulemaking provisions governing the application, processing, and disposition of petitions for rulemaking (14 CFR part 11), this notice contains a summary of certain petitions requesting the initiation of rulemaking procedures for the amendment of specified provisions of the Federal Aviation Regulations and of denials or withdrawals of certain petitions previously received. The purpose of this notice is to improve the public's awareness of, and participation in, this aspect of FAA's regulatory activities. Neither publication of this notice nor the inclusion or omission of information in the summary is intended to affect the legal status of any petition or its final disposition.

**DATES:** Comments on petitions received must identify the petition docket number involved and must be received on or before September 24, 1990.

**ADDRESSES:** Send comments on any petition in triplicate to:

Federal Aviation Administration, Office of the Chief Counsel, Attn: Rules Docket (AGC–10), Petition Docket No._____, 800 Independence Avenue, SW., Washington, DC 20591.

**FOR FURTHER INFORMATION CONTACT:** The petition, any comments received, and a copy of any final disposition are filed in the assigned regulatory docket and are available for examination in the Rules Docket (AGC–10), room 915G, FAA Headquarters Building (FOB 10A), 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267–3132.

This notice is published pursuant to paragraphs (b) and (f) of § 11.27 of part 11 of the Federal Aviation Regulations (14 CFR part 11).

Issued in Washington, DC, on July 17, 1990.

**Denise Donohue Hall,**

*Manager, Program Management Staff, Office of the Chief Counsel.*

**Petitions for Rulemaking**

*Docket No.:* 26230.

*Petitioner:* Edgar J. Bethart, Jr.

*Regulations Affected:* 14 CFR 61.155.

*Description of Petition:* To amend § 61.155 to permit similar experience of other required crewmembers to be credited toward the airline transport pilot certificate in the same manner as flight engineer experience.

*Petitioner's Reason for the Petition:* The petitioner believes that other required crewmembers log time and gain experience that is equal to or exceeds that gained as a flight engineer. Other required crewmembers should be treated equally with flight engineers and allowed to log up to 500 hours experience toward an air transport pilot certificate on a 3 for 1 basis.

[FR Doc. 90–17324 Filed 7–24–90; 8:45 am]

BILLING CODE 4910–13–M

### 14 CFR Part 71

**[Airspace Docket No. 90–ANM–04]**

### Proposed Amendment, Durango Transition Area, Durango, CO

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** This notice proposes to amend the Durango, Colorado 1200-foot transition area to provide sufficient airspace to encompass new instrument approaches at Durango-LaPlata Airport and provide sufficient holding pattern area which will accommodate the performance characteristics of modern aircraft. The intent of this action is to segregate aircraft operating under visual flight rules from aircraft operating under instrument flight rules. The area will be depicted on aeronautical charts for pilot reference.

**DATES:** Comments must be received on or before September 30, 1990.

**ADDRESSES:** Send comments on the proposal to:

Manager, System Management Branch, ANM–530, Federal Aviation Administration Docket No. 90–ANM–04, 17900 Pacific Highway South, Seattle, Washington 98168.

The official docket may be examined at the same address.

An informal docket may also be examined during normal business hours at the address listed above.

**FOR FURTHER INFORMATION CONTACT:**

Ted Melland ANM–536, Federal Aviation Administration, Docket No. 90–ANM–04, 17900 Pacific Highway South C–68966, Seattle, Washington 98168, Telephone (206) 431–2536.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy aspects of the proposal. Communications should identify the airspace docket and may be submitted to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: "Comments to Airspace Docket No. 90–ANM–04." The postcard will be date/time stamped and returned to the commenter. All communications received on or before the specified closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available for examination at the address listed above both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket.

**Availability of NPRM's**

Any person may obtain a copy of this Notice of Proposed Rulemaking (NPRM) by submitting a request to the Federal Aviation Administration.

Federal Aviation Administration, System Management Branch, ANM–530, 17900 Pacific Highway South C–68966, Seattle, Washington 98168.

Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRM's should also request a copy of Advisory Circular No.

11–2A which describes the application procedure.

**The Proposal**

The FAA proposes an amendment to § 71.181 of part 71 of the Federal Aviation Regulations (14 CFR part 71) to amend the legal description of the 1200-foot transition area at Durango, Colorado to provide sufficient airspace to encompass aircraft executing instrument approaches at Durango LaPlata Airport. The amended transition area would also provide sufficient airspace for holding pattern size to accommodate the design characteristics of modern aircraft.

Section 71.181 of part 71 of the Federal Aviation Regulations was republished in Handbook 7400.6F dated January 2, 1990.

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore (1) is not a "major rule" under Executive Order 12291; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a regulatory evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, if promulgated, will not have a significant economic impact positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

**List of Subjects in 14 CFR Part 71**

Aviation safety, Transition areas.

**The Proposed Amendment**

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend part 71 of the Federal Aviation Regulations (14 CFR part 71) as follows:

## PART 71—DESIGNATION OF FEDERAL AIRWAYS, AREA LOW ROUTES, CONTROLLED AIRSPACE, AND REPORTING POINTS

1. The authority citation for part 71 continues to read as follows:

Authority: 49 U.S.C. 1348(a), 1354(a), 1510; Executive Order 10854; 49 U.S.C. 106(g) (Revised Pub. L. 97–449, January 12, 1983); 14 CFR 11.69.

2. 71.171 is amended as follows:

**Durango, CO [Amended]**

[1200 foot transition area]

starting at lat. 37°08'00" long. 107°26'15"
to lat. 37°05'30" long. 107°18'15"
to lat. 36°35'00" long. 107°53'30"
to lat. 36°58'00" long. 108°25'00"
to lat. 37°31'30" long. 107°47'00"
to lat. 37°21'30" long. 107°34'00"
Thence clockwise via the 17.5 mile radius of the Durango Vor; to point of beginning, excluding other airspace which overlaps.

Issued in Seattle, Washington, on July 16, 1990.

**Temple H. Johnson, Jr.**

*Manager, Air Traffic Division, Northwest Mountain Region.*

[FR Doc. 90–17325 Filed 7–24–90; 8:45 am]

BILLING CODE 4910–13–M

## SECURITIES AND EXCHANGE COMMISSION

### 17 CFR Parts 230, 239, 270, and 274

**[Release Nos. 33–6870; IC–17589; S7–13–90]**

**RIN 3235–AD91**

### Revisions to Rules Regulating Money Market Funds

**AGENCY:** Securities and Exchange Commission.

**ACTION:** Proposed amendments to rules and forms.

**SUMMARY:** The Commission is proposing for public comment amendments to rules and forms under the Securities Act of 1933 and the Investment Company Act of 1940 affecting money market funds. The proposed amendments would tighten the risk-limiting conditions of rule 2a–7, the rule that permits money market funds to use the amortized cost method of valuing portfolio securities and the penny-rounding method of computing price per share, and would require all funds that hold themselves out to the public as money market funds to meet those conditions. The amendments are intended to reduce the likelihood that a money market fund would not be able to maintain a stable net asset value.

**DATES:** Comments must be received on or before September 24, 1990.

**ADDRESSES:** Comments should be submitted in triplicate to Jonathan G. Katz, Secretary, Securities and Exchange Commission, 450 5th Street, NW., Washington, DC 20549. All comment letters should refer to File No. S7–13–90. All comments received will be available for public inspection and copying in the Commission's Public Reference Room, 450 5th Street, NW., Washington, DC 20549.

**FOR FURTHER INFORMATION CONTACT:** Richard Pfordte, Special Counsel, or Kenneth J. Berman, Special Counsel, Office of Disclosure and Adviser Regulation, (202) 272–2107, Securities and Exchange Commission, 450 Fifth Street, NW., Mail Stop 5–2, Washington, DC 20549.

**SUPPLEMENTARY INFORMATION:** The Securities and Exchange Commission ("Commission") today is proposing for comment on several amendments to rules and forms affecting money market funds, including rule 2a–7 (17 CFR 270.2a–7) under the Investment Company Act of 1940 (15 U.S.C. 80a–1 *et seq.*) ("1940 Act"). Rule 2a–7 is used by most money market funds to maintain a stable net asset value of $1.00 per share.

The Commission is proposing for comment amendments to rule 2a–7 to: (1) Require any registered investment company using the rule ("money market fund" or "fund") to (A) limit its investment in the securities of any one issuer to no more than five percent of fund assets, measured at the time of purchase and (B) limit its investment in the securities of all issuers having the second highest rating assigned by any nationally recognized statistical rating organization ("NRSRO") [1] to no more than five percent of fund assets, with investment in any one such issuer being limited to no more than one percent of fund assets, in each case measured at the time of purchase; (2)(A) substitute the term "eligible quality" for the term "high quality" [2] and define eligible quality (i) in respect of a rated security, to mean a security which has been rated (or the issuer of which has been rated) by all NRSROs which have issued a rating with respect to the security (or issuer) in one of the two highest rating categories and (ii) in respect of an unrated security, to mean a security which has not been rated and whose issuer's other securities have not been rated less than eligible quality; (B) require a fund, in the event that the rating of a portfolio security is downgraded by a NRSRO or the issuer defaults on its obligations, to reassess promptly whether the security presents minimal credit risks, determine whether continuing to hold the security is in the best interest of the fund, and record such actions in fund records; and (C)

[1] The term "nationally recognized statistical rating organization" is used in the Commission's uniform net capital rule (17 CFR 240.15c3–1(c)(2)(vi)(F)). The Commission's Division of Market Regulation responds to requests for NRSRO designation through no-action letters.

[2] Money market funds may only invest in "high quality" securities. *See* paragraphs (a)(2)(iv) and (a)(3)(iii) of rule 2a–7 (17 CFR 270.2a–7(a)(2)(iv), 270.2a–7(a)(3)(iii)). Unless otherwise indicated, the term "high quality" is used in reference to the current requirements of the rule and the term "eligible quality" is used in reference to the proposed amendments.

require a fund to notify the Commission if it holds defaulted securities which amount to one-half of one percent or more of fund assets; (3) require a fund to maintain a dollar-weighted average portfolio maturity of not more than ninety days, and to purchase no security with a remaining maturity of more than two years; and (4) make it unlawful for any registered investment company to use "money market" in its name or hold itself out as a "money market fund" unless it meets the conditions of rule 2a–7 relating to portfolio diversification (proposed paragraph (c)(4), which would require that a fund invest no more than five percent of its assets in the securities of any one issuer and no more than five percent of its assets in the securities of all issuers that have less than the highest credit rating from any NRSRO, with investment in any one such issuer being limited to one percent of fund assets), quality (proposed paragraph (c)(3), which would require that fund investments be limited to securities presenting minimal credit risks and which are "eligible quality"), and maturity (proposed paragraph (c)(2), which would require that the average weighted maturity of the fund's portfolio not exceed ninety days and that fund investments be limited to securities with a remaining maturity of two years or less) (collectively, the "risk-limiting conditons"). The proposed amendments would also clarify certain other aspects of rule 2a–7.

Except for the proposed diversification conditions and the limitation on investment in securities that have not received the highest rating from any NRSRO, the proposed risk-limiting conditions would be applicable to all money market funds, including those that hold themselves out as distributing income that is exempt from federal income tax ("tax exempt funds"). The Commission is not at this time proposing to make the diversification requirements and the limit on investment in securities not having the highest NRSRO rating applicable to tax exempt funds.

The Commission is also proposing for comment amendments to rule 482 (17 CFR 230.482) under the Securities Act of 1933 (15 U.S.C. 77a *et seq.*) ("1933 Act") and rule 34b–1 under the 1940 Act (17 CFR 270.34b–1), and Forms N–1A, N–3, and N–4 (17 CFR 274.11A, 274.11b, and 274.11c) under the 1933 and 1940 Acts to: (i) Require the cover page of money market fund prospectuses to disclose prominently that fund shares are neither insured nor guaranteed by the U.S. government and that there is no assurance that the fund will be able to maintain a stable net asset value of $1.00 per share; and (ii) revise the definition of a "money market fund" for purposes of those funds eligible to quote a seven-day yield in advertisements and sales literature to include only those money market funds that meet the risk-limiting conditions.

The amendments proposed today are intended to reduce the likelihood that a money market fund would "break a dollar," that is, reduce its share price to less than $1.00 because of significant fluctuations in the value of its portfolio securities under certain circumstances. The amendments and the Commission's reasons for proposing them are discussed below.

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## I. Background

Money market funds, which were first introduced in the mid-1970s, are open-end management investment companies investing in short-term debt instruments. Through these funds, individual investors can participate in the money markets. Money market funds have also attracted investments from corporations, bank trust departments, and other institutional investors.[3]

Money market funds have become the most popular type of investment company in the United States, in terms of both the number of shareholder accounts and asset size. At the end of 1975, there were 36 money market funds with approximately $3.7 billion in assets in approximately 209,000 shareholder accounts.[4] There are currently 649 money market funds with over $450 billion in assets in approximately 21.3 million shareholder accounts.[5] Mutual funds as a group (2,918 funds, including money market funds) had approximately 58.2 million shareholder accounts and $982 billion of assets; over thirty-seven percent of these assets were in money market funds.[6]

One unique feature of money market funds is that they seek to maintain a stable net asset value per share, typically at $1.00 per share. Investors have apparently found it convenient to purchase and sell shares of money market funds at a fixed price; under such arrangements, an increase or decrease in the value of a shareholder's account is reflected in an increase or decrease in the number of shares owned. Many money market funds allow investors to use checks to redeem shares and, because the value of an account does not change due to fluctuations of share values, many investors use money market funds as alternatives to checking accounts since they can readily ascertain their account balance.

To maintain a stable price per share, most money market funds use the amortized cost method of valuation or the penny-rounding method of pricing, as permitted by rule 2a–7. But for rule 2a–7, section 2(a)(41) of the 1940 Act (15 U.S.C. 80a–2(a)(41)), together with rules 2a–4 and 22c–1 under the 1940 Act (17 CFR 270.2a–4, 270.22c–1), would require a money market fund to calculate its current net asset value per share by valuing portfolio securities for which market quotations are readily available at market value, and other securities and assets at fair value as determined in good faith by the board of directors ("marking-to-market"). These valuation requirements are designed to prevent the interests of investors from being diluted or otherwise adversely affected if fund shares are not priced fairly.[7]

The Commission adopted rule 2a–7 in 1983 to codify standards that had been developed in a series of orders exempting money market funds from the

[3] A significant number of funds are aimed exclusively at institutional investors. Currently 114 money market funds sell shares only to institutions. IBC/Donoghue's Money Fund Report (June 1, 1990) (hereinafter, "Money Fund Report"). Data derived from the Money Fund Report is as of May 29, 1990.

[4] Investment Company Institute Mutual Fund Fact Book 78, 79 (30th ed. 1990) (hereinafter, "Mutual Fund Fact Book").

[5] Money Fund Report, *supra* note 3. The information with respect to shareholder accounts is derived from the Mutual Fund Fact Book, *supra* note 4 at 79.

[6] Mutual Fund Fact Book, *supra* note 4.

[7] If shares are sold or redeemed based on a net asset value which turns out to have been either understated or overstated in comparison to the amount at which portfolio instruments could have been sold, then the interests of either existing shareholders or new investors will have been diluted. *See* Investment Trusts and Investment Companies: Hearings on S.3580 Before a Subcomm. of the Sen. Comm. on Banking and Currency, 76th Cong., 3rd Sess. 136–138, 268 (1940).

pricing and valuation provisions of the 1940 Act.[8] Because money market funds generally invest only in debt securities with a maturity of one year or less ("short-term"), valuing these securities under traditional requirements can be difficult or costly. To reduce costs to funds, and to enable them to more readily maintain a stable price per share, the rule permits money market funds to use the amortized cost method of valuation and penny-rounding method of pricing. To determine net asset value under the amortized cost method of valuation, portfolio securities are valued by reference to their acquisition cost as adjusted for amortization of premium or accumulation of discount. Share price is determined under the penny-rounding method of pricing by valuing securities at fair market value or amortized cost,[9] and then rounding the net asset value per share to the nearest one cent on a share value of one dollar.

The rule limits money market funds to investing in "high quality," [10] short term, dollar denominated debt securities, because these securities do not greatly fluctuate in value with interest rate changes, and as a result are subject to less market risk, in comparison to lower quality and longer term securities. A basic premise underlying the amortized cost method is that securities held until maturity will yield a value equivalent to the amortized cost value, regardless of any current disparity between the amortized cost value and market value.[11] The rule's conditions are designed to reduce the potential for the net asset value of the money market fund using the amortized cost method of valuation to deviate materially from a valuation that would be determined if the fund were using the mark-to-market method required by rules 2a–4 and 22c–1 under the 1940 Act. In the case of the penny-rounding method, these conditions limit risk so that funds are permitted to round to the nearest cent on a share value of a dollar (as opposed to the nearest one tenth of one cent).[12]

Most money market funds find compliance with rule 2a–7 to be the preferable way to maintain a stable net asset value. A few funds, however, do not rely on the rule. These funds value portfolio securities by marking-to-market daily, except for those securities maturing in sixty days or less, which may be valued at amortized cost.[13] They seek to maintain a constant price per share despite the fluctuation of net asset value which occurs with mark-to-market valuation of securities by including changes in the market value of their assets as part of the dividends they declare daily. This method of maintaining a constant price per share is sometimes referred to as the "full payout" method.

Rule 2a–7 requires money market funds using the amortized cost method also to monitor the market value of portfolio securities. If the value of securities changes because, for example, interest rates rise significantly, then the market value of securities may be less than their value under the amortized cost method. When the amount of deviation exceeds one half of one percent, rule 2a–7(a)(2)(ii) requires the board of directors of a money market fund to take such action as it deems appropriate to eliminate or reduce to the extent practicable the deviation, including reducing the net asset value per share to less than $1.00. Similarly, the share price of a fund using the penny-rounding method will change if the per share price determined by marking-to-market deviates by more than one-half of one cent (for a share price of $1.00) from the established price as determined under the penny-rounding method.[14]

The money markets have changed significantly since the adoption of rule 2a–7 in 1983, particularly in respect of commercial paper. The commercial paper market has expanded considerably: at the end of 1989, commercial paper outstanding amounted to over $500 billion, as compared to approximately $180 billion at the end of 1983. The percentage of money market fund assets invested in commercial paper has increased from twenty nine percent in 1983 to fifty percent at the end of 1989.[15]

A recent study by Moody's Investor Service ("Moody's") found that over an eighteen year period, five issuers with Moody's short-term ratings defaulted on commercial paper. Four of these defaults occurred in the first ten months of 1989.[16] In addition, two issuers not included in this study, Integrated Resources, Inc. and Mortgage and Realty Trust, have defaulted on their commercial paper since June 1989. In the latter two cases, the commercial paper had a "high quality" [17] rating from a NRSRO until shortly before the default and was held by several money market funds at the time fo the default. The shareholders of these money market funds were not adversely affected, however, because each fund's investment adviser purchased the defaulted commercial paper from the funds at its amortized cost or principal amount.[18]

The credit ratings of some large money center banks also have declined recently.[19] These banks issue instruments such as large certificates of deposit which money market funds purchase, and provide credit support for securities of other issuers which otherwise would not be "eligible quality" and thus would not be permitted investments for money market funds relying on rule 2a–7.[20]

The Commission believes that, in light of these developments, it is appropriate to reexamine the conditions of the rule. The Commission is proposing certain changes designed to assure that the valuation methods authorized by the rule continue to be necessary or appropriate in the public interest and consistent with the protection of investors and the purposes fairly

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[8] *See* Investment Company Act Rel. No. 13380 (July 11, 1983) (48 FR 32555 (July 18, 1983)) (hereinafter, "Release 13380").

[9] The Commission has adopted an interpretive position permitting all investment companies to use the cost amortization method of valuation with respect to debt securities that mature in sixty days or less. *See* Investment Company Act. Rel. No. 9786 (May 31, 1977) [42 FR 28999 (June 7, 1977)] (hereinafter, "Release 9786").

[10] Under the current rule, "high quality" securities are generally considered to be those that have received one of the top two ratings by a NRSRO or, in the case of unrated securities, are of comparable quality. *See* Release 13380, *supra* note 8, at n. 34. The proposed amendments would modify this definition in certain respects, and substitute the term "eligibile quality" for "high quality." *See* Part II.2 of this Release and *supra* note 2.

[11] Release 13380, *supra* note 8, 48 FR at 32557.

[12] *See id.* at n. 8 and accompanying text, and Investment Company Act Rel. No. 12206 (Feb. 1, 1982) (47 FR 5428 (Feb. 5, 1982)) at n. 5

[13] *See* Release 9786, *supra* note 9.

[14] This is commonly referred to as "breaking a dollar."

[15] *See* Laing, Never Say Never, Barron's Mar. 26, 1990, at 6, col. 1.

[16] *See* Moody's Special Report, Defaults and Orderly Exits of U.S. and European Commercial Paper Issuers, 5–6 (Nov. 1989) (hereinafter, "Commercial Paper Defaults"). *See also* Junk is Ripping into Commercial Paper, Bus. Wk. 84–86 (Mar. 26, 1990).

[17] The proposed amendments would substitute the term "eligible quality" for the term "high quality." *See* section II.2. of this Release for a discussion of the meaning "eligible quality" for purposes of rule 2a–7. Unless otherwise indicated, the term "high quality" is used in reference to the current requirements of the rule and the term "eligible quality" is used in reference to the proposed amendments.

[18] If the advisers had not purchased the securities and the market value of the commercial paper had declined by a substantial amount because of the default and, as a result, the amortized cost value of a fund's portfolio deviated by more than one half of one percent from its market value, the affected funds could have been required to break a dollar. *See supra* note 14 and accompanying text.

[19] *See* Moody's Industry Outlook: U.S. Money Center Banks (Aug. 1989) (the credit ratings of most money center banks were downgraded during 1986–88).

[20] *See infra* note 52 and accompanying text.

intended by the policy and provisions of the 1940 Act.[21] The Commission also believes that it is appropriate to propose certain amendments that are designed to protect investors by assuring that any investment company that holds itself out as a money market fund meets the proposed risk-limiting conditions of rule 2a–7.

Money market funds are not insured or guaranteed by the U.S. government, and investment in a money market fund is subject to the risks normally associated with investing in securities.

## II. Proposed Revisions to Rules

The proposed amendments to rule 2a–7 [22] would impose additional conditions with respect to diversification, quality and portfolio maturity; would make the risk-limiting conditions of rule 2a–7 applicable to all investment companies that hold themselves out as money market funds, not just to those using the valuation procedures permitted by the rule; would require certain disclosure by money market funds; and would clarify the meaning of certain terms and requirements in the rule; and would limit funds eligible to quote seven day yields in advertisements to those funds that comply with the proposed risk-limiting conditions.

### *1. Diversification*

In order to limit investment risk for shareholders, mutual funds generally diversify their investments to some extent, *i.e.*, they invest in many securities rather than in only a few issues. Diversification limits investment risk to a fund by spreading the risk of loss among a number of securities.[23] The Commission is proposed to require money market funds (other than tax exempt money market funds) to comply with certain specific diversification requirements, and to limit their overall investment in securities not receiving the highest NRSRO rating. As explained below in Section II.6. of this Release, the Commission is not at this time proposing to make these conditions applicable to tax exempt money market funds.

[21] *See* section 6(c) of the 1940 Act (15 U.S.C. 80a–6(c)) under which rule 2a–7 was adopted. Since its adoption, rule 2a–7 has been amended only once, in 1986, to permit money market funds to acquire put options and standby commitments. *See* Investment Company Act Rel. No. 14983 (Mar. 12, 1986) (51 FR 9773 (Mar. 21, 1986)) (hereinafter, "Release 14983").

[22] The proposed revisions to rule 2a–7 would substantially revise the paragraph numbering of the rule. A conversion table, attached as an appendix to this release, indicates where provisions of the current rule are found in the proposed amended rule.

[23] *See* J. Francis, Management of Investments 732 (2nd ed. 1988).

### a. Five Percent Test for All Securities

Most money market funds are diversified investment companies as that term is defined in the 1940 Act. Diversified investment companies under section 5(b)(1) of the 1940 Act [15 U.S.C. 80a–5(b)(1)] are required, with respect to seventy-five percent of their assets, to invest in cash, cash items, government securities, other investment companies, and "other portfolio securities." With respect to other portfolio securities, a diversified fund may not invest more than five percent of its assets in the securities of any one issuer.[24] Under section 5(b)(1) the remaining twenty-five percent of fund assets may be invested in any manner. Money market funds also comply with the diversification requirements of subchapter M of the Internal Revenue Code of 1986.[25]

Rule 2a–7 currently contains a diversification condition only with respect to securities underlying puts, and is applicable only with respect to seventy-five percent of the fund's assets.[26] This condition is designed to ensure that a fund's liquidity would not be impaired by the fund relying too heavily upon the same institution or upon only a handful of institutions to maintain liquidity.[27] This rationale has applicability to fund investments generally, since the ability of a fund to maintain a stable net asset value under rule 2a–7 may be impaired to the extent it invests heavily in one or more institutions that subsequently experience credit problems or default on their securities.

Most money market funds have policies imposing stricter diversification standards than those required by section 5(b)(1) of the 1940 Act or subchapter M of the Internal Revenue Code. For example, many money market funds limit their investment in any one issuer to not more than five percent of fund assets.[28] The proposed amendments would impose this stricter test on all money market funds, except for tax exempt funds. That is, the proposed amendments would limit a money market fund to investing no more than five percent of the value of its total assets, at the time of acquisition, in the securities of any one issuer (other than U.S. government securities specified in section 2(a)(16) of the 1940 Act [15 U.S.C. 80a–2(a)(16)]) (the "five percent diversification test").[29] Paragraph (c)(4)(i) of the amended rule would differ from the diversification test under section 5(b)(1) of the 1940 Act only to the extent that the five percent diversification test would apply to all of the assets of the money market fund and not only with respect to seventy-five percent of the funds's assets.[30] Tax exempt funds would continue to be subject only to the diversification requirements of the current rule with respect to puts.[31]

### b. Test for Securities Not Having the Highest NRSRO Rating

Rule 2a–7 limits fund investment to securities receiving either the highest or second highest NRSRO ratings,[32] or

[24] However, rule 5b–2 under the 1940 Act (17 CFR 270.5b–2) provides that a guarantee is not deemed to be a security of the guarantor provided that the value of all securities held by the fund guaranteed or issued by the guarantor does not exceed ten percent of its total assets. The substance of rule 5b–2 would be incorporated into proposed paragraph (c)(4)(iii)(C) of rule 2a–7.

[25] 26 U.S.C. 851 *et seq.* To be a "regulated investment company" under subchapter M of the Internal Revenue Code, a fund must, among other things, have at the close of each quarter of the taxable year invested at least fifty percent of its total assets in (i) cash and cash items, (ii) government securities, (iii) securities of other regulated investment companies, or (iv) securities (other than those in clauses (ii) and (iii)) of any one or more issuers. In addition, the regulated investment company cannot, with respect to fifty percent of its assets, invest more than five percent of its total assets in the securities of one issuer, and the total amount of the securities acquired cannot represent more than ten percent of the outstanding voting securities of such issuer. *See* section 851(b)(4).

[26] *See* paragraphs (a)(2)(v) and (a)(3)(iv) of the current rule.

[27] *See* Release 14983, *supra* note 21.

[28] *See, e.g.*, prospectuses of Axe-Houghton Money Market Fund, Inc., dated Oct. 31, 1988, Weiss Peck & Greer Funds Trust, dated May 1, 1990, Stein Roe Mutual Funds, dated Nov. 1, 1989, and Lord Abbett Cash Reserve Fund, dated Nov. 1, 1988.

[29] The proposed amendments would not change the current rule's requirements for computing the asset value of a fund for this purpose. In the case of a fund using the amortized cost method of valuation, a fund's "total assets" would be computed by reference to the total amortized cost value of its assets; in the case of other funds, it would be based on market value. *See* proposed paragraph (a)(12).

[30] Thus, the proposed amended rule, if adopted, should be interpreted identically to section 5(b)(1) of the 1940 Act except to the extent that the proposed rule applies to 100 percent of the fund's assets. In addition, the interpretative position taken by the Commission's Division of Investment Management in MoneyMart Assets Inc. (pub. avail. Sept. 3, 1980) (permitting a diversified fund to invest more than five percent of its assets in repurchase agreements fully collateralized by government securities where the fund has the unqualified right to sell the collateral in the event of a default by the other party to the agreement) would be codified in proposed paragraph (c)(4)(i) and would be applicable to the diversification computations under the proposed rule.

[31] A fund may invest up to five percent of its assets in puts from one institution, and may invest up to ten percent of its assets in unconditional puts from any one institution. *See* paragraphs (a)(2)(v) and (a)(3)(iv) of the current rule and proposed paragraph (c)(4)(ii).

[32] Currently, there are five NRSROs: Duff and Phelps, Inc. ("D&P"), Fitch Investors Services, Inc.

Continued

unrated securities the board (or its delegate) finds to be of comparable quality. Investment in issurers receiving the second highest, rather than the highest, NRSRO rating may create a greater risk for funds seeking to maintain a stable price per share.[33] The Commission proposes to impose an additional requirement with respect to securities of issuers that have received the second highest rating of any NRSRO (or, if unrated, are of comparable quality, as determined by the board of directors).[34] The proposed amended rule 2a–7(c)(4) would limit a money market fund to investing no more than five percent of its total assets in securities not having the highest NRSRO rating (the "five percent quality test"), with investment in any one such issuer being limited to no more than one percent of total assets (the "one percent diversification test"), in each case determined at the time of acquisition.[35]

Compliance with the five percent diversification test, the five percent quality test and the one percent diversification test would be measured at the time the fund purchases a security, and thus a fund would not be required subsequently to dispose of a security because of a change in the percentage of fund assets the security represents or in the fund's overall investment in securities not having the highest NRSRO rating. In the event a security that had the highest quality rating (*e.g.*, Prime–1) at the time it was acquired is subsequently downgraded but is still eligible quality (*e.g.*, Prime–2), the money market fund would *not* be required to dispose of the security if more than one percent of fund assets consisted of securities issued or guaranteed by the issuer of the downgraded security or more than five percent of fund assets were invested in securities not having the highest NRSRO rating. However, the board (or its delegate) would be required to reassess promptly whether the security presents minimal credit risks as required by proposed paragraph (c)(5)(i). The money market fund could not subsequently acquire any additional securities of that issuer if, after purchase, it would exceed the one percent diversification test unless such securities had been subsequently upgraded.[36] Similarly, it could not acquire any additional securities that did not have the highest NRSRO rating if, after purchase, the fund's investment in all such securities would exceed five percent of its total assets.

The Commission requests comment on the proposed five percent diversification test, the five percent quality test and the one percent diversification test. Specific comment is requested on whether the percentage levels of the diversification tests are too high or too low, and whether alternative levels (such as three, four, six or ten percent, in lieu of the proposed five percent diversification test; or one-half of one, two, three or four percent in lieu of the proposed one percent diversification test) should be adopted. Comment is also requested on the five percent quality test, specifically on whether an overall limit on fund investment in securities not having the highest NRSRO rating is appropriate, and whether alternative levels (such as ten, fifteen or twenty-five percent) should be adopted. Comment is also requested on the impact of the proposed requirements on smaller money market funds. For example, would a smaller fund be unable to purchase certain types of securities because the fund could not purchase a security in the denomination in which it is ordinarily traded?[37] Commenters are also requested to suggest alternative tests that would address the Commission's concerns relating to diversification and quality. Commenters are also requested to discuss the effect on the commercial paper market of either the five percent diversification test or the proposed limitations on investment in securities that do not have the highest NRSRO rating. Comment is specifically invited from issuers of, or dealers in, commercial paper on the effects that this proposal would have on the capital markets. With respect to the actions required to be taken if the rating of a security is downgraded, comment is requested on whether any NRSRO downgrade should be determinative, or whether more than one NRSRO downgrade should be required.

Some representatives of the investment company industry have suggested that money market funds be permitted to invest only in securities that have the highest rating of at least one NRSRO (*e.g.*, A–1 or Prime-1) because of the greater risk of default represented by a lower rating. They have suggested that a more stringent diversification requirement for securities that have not received the highest NRSRO rating would not significantly limit this risk. The Commission solicits comment on whether, as an alternative, it should adopt a definition of "eligible quality" that includes only securities that have the highest rating of all (or less than all) NRSROs rating the security or its issuer (or, if unrated, are of comparable quality as determined by the fund's board of directors). As discussed below in Section II.6. of this release, the Commission is not proposing that these alternatives, if adopted, be applicable to tax exempt funds.

*2. Quality of Portfolio Investments*

Rule 2a–7 requires money market funds to invest in securities which the board determines present minimal credit risks and which are "high quality," as determined by any NRSRO, or if unrated, are of comparable quality as determined by the fund's board of directors. The Commission is proposing to amend these provisions of the rule to clarify the meaning of certain terms and to change the term "high quality" to "eligible quality."

a. Rated Securities

Rule 2a–7 limits money market funds to purchasing securities which are "high quality," as determined by any NRSRO, or, in the case of unrated securities, are of comparable quality as determined by the board of directors. "High quality" is not currently defined in the text of the rule; however, Release 13380 describes a security as being of "high quality" if it has received one of the top two ratings by any NRSRO, or, in the case of unrated securities, if it is of comparable quality as determined by the fund board of directors.[38] Certain NRSROs assign ratings to specific securities; [39] others rate the capacity of issuers to repay senior debt without reference to a specific security.[40] Proposed paragraph

("Fitch"), McCarthy, Crisanti & Maffei, Inc. ("MCM"), Moody's Investors Service ("Moody's") and Standard & Poor's Corp. ("S&P"). *See supra* note 1.

[33] *See infra* note 43 and accompanying text.

[34] In the case of issuers rated by Moody's, this provision would be applicable to issuers that received a rating of Prime–2; in the case of securities rated by D&P, Fitch, MCM and S&P, it would be applicable to securities rated Duff 2, F–2, MCM–2 and A–2, respectively.

[35] The one percent limit is expected to permit funds to purchase securities not having the highest NRSRO rating in standard lots or denominations while at the same time limiting the risk of investing in the securities of an issuer that is considered to be less than the highest quality.

[36] For purposes of rule 2a–7, a fund acquires a security when an issuer reissues or "rolls over" a debt instrument. Therefore, at the time of the rollover, the fund must be in compliance with the diversification requirements of the rule.

[37] For example, the proposed amendment would preclude a fund with less than $10,000,000 in assets from purchasing the commercial paper of a P–2 issuer if it could only be purchased in denominations of $100,000.

[38] *See* Release 13380, *supra* note 8, at n. 34.

[39] *See* Standard & Poor's Corp., Standard & Poor's Credit Overview: Corporate and International Ratings 87 (1986).

[40] *See* Moody's Investor Service, Moody's Global Short-Term Market Record 6 (Apr. 1990).

(a)(5) would define an "eligible quality" security as one which has been rated (or the issuer of which has been rated) by all NRSROs that have assigned a rating with respect to such security (or issuer) in one of the two highest rating categories.[41]

Currently, rule 2a–7 permits a fund relying on the rule to invest in a security as long as at least one NRSRO has rated the security in the requisite category. Some securities have "split" ratings, *i.e.*, different quality ratings from different NRSROs.[42] A split rating may be the result of the failure of one NRSRO to perceive quality problems (or improvements) that another NRSRO has perceived and has reflected in its ratings; it may also reflect differences among NRSROs as to the emphasis placed on different conditions.[43] The Commission believes that a more cautious approach, which requires the security to receive the requisite rating from each NRSRO rating the security, to be warranted. Accordingly, paragraph (a)(5) of the proposed amended rule would require that a security receive one of the top two ratings from *all* NRSROs that have assigned a rating with respect to such security. As discussed above, the Commission is also requesting comment on whether the definition of "eligible quality" should only include a security (or issuer) that have received the highest NRSRO rating from all NRSROs (or, if unrated, that is of comparable quality, as determined by the fund's board of directors).[44]

Comment is requested on whether this proposal would place unnecessary restrictions on money market funds in terms of their ability to invest in securities that present minimal credit risks. The Commission requests data on the number of securities or issuers that have received split ratings and the extent to which split ratings have resulted from one NRSRO changing its rating in anticipation of credit deterioration as opposed to credit improvement. Comment is also requested on alternatives to the Commission proposal. For example, in the event of a split rating, should the rule permit a money market fund to rely on the most recent rating, or, where the security is rated by more than two NRSROs, on the rating assigned by the majority (or two) of the NRSROs? The Commission would find it helpful if any alternatives were accompanied by suggested rule text. Comment is also requested on whether money market funds would face any significant burdens in keeping track of all the NRSRO ratings of a particular security or issuer. Comment is also requested on the impact that these proposals would have on issuers of commercial paper and other short-term debt securities in terms of their ability to raise capital.

When rule 2a–7 was initially proposed, there was substantial comment on the significance of NRSRO ratings. The Commission concluded that the requirement that a security, if rated, have a "high quality" rating "provides protection by ensuring input into the quality detemination by an outside source." [45] Comment is requested on whether NRSRO ratings are appropriate guides to creditworthiness, whether the role of NRSRO ratings in rule 2a–7 is appropriate or necessary, whether credit quality judgments should be left exclusively to fund directors and investment advisers, and whether reliance on such ratings may discourage others from performing indepentent credit assessments.

Some NRSROs provide ratings of money market funds. These ratings purport to evaluate the safety of principal invested in a money market fund. The Commission has previously proposed to amend rules 134 and 436 (17 CFR 230.134, 230.436) under the 1933 Act to allow a money market fund receiving a rating from a NRSRO to include the rating in the fund's prospectus and advertisement without the filing of the NRSRO's consent (in effect, exempting the NRSRO from liability under section 11 at the 1933 Act) (the "money market fund ratings proposal").[46] Comment is requested on whether the Commission should adopt the money market fund ratings proposal as an alternative to amending rule 2a–7, or whether the money market fund ratings proposal should be adopted to supplement the proposed amendments to rule 2a–7, or whether the money market fund ratings proposal should be adopted at all.[47]

The Commission is not proposing to change rule 2a–7's condition that a money market fund limit its investment to securities that are determined to present "minimal credit risks." [48] This condition may require funds to consider credit risks not considered by a NRSRO.[49] As the Commission stated in Release 13380, an instrument must be evaluated for the credit risks that it presents to the particular fund at that time in light of the risks attendant to the use of amortized cost valuation or penny-rounding. The staff of the Division of Investment Management (the "Division") has suggested elements that should be considered in an analysis of whether a security presents mininal credit risk.[50] The factors identified by the Division are not an exclusive list, and the board or its delegate should take into account any additional factors it believes to be material in assessing the credit risks posed by a particular investment.

b. Unrated Securities

Rule 2a–7 provides that, if a security is not rated by a NRSRO, the board of directors must determine that the security is comparable in quality to a security rated "high quality" in order for a fund to invest in the security.[51] The

[41] With respect to an unrated security, "eligible quality" would include a security of comparable quality as determined by the fund's board of directors or its delegate. *See* Part II.2.b. of this Release.

[42] *See* Bush, Rating Agencies' Performance Put on Watch, The Financial Times Limited, May 2, 1990 at 37, col. 1.

[43] NRSROs have been criticized for responding slowly to changes in an issuer's credit position. It has been noted that the market often anticipates credit rating changes before they occur. *See* Fabozzi & Pollack (eds.), The Handbook of Fixed Income Securities 370 (1983).

[44] *See* Part II.1.b of this Release.

[45] Release 13380, *supra* note 8, at 48 FR 32560.

[46] *See* Investment Company Act Rel. No. 14984 (Mar. 4, 1986) (51 FR 9639 (Mar. 21, 1986)). Section 7 of the 1933 Act (15 U.S.C. 77g) requires the consent of any expert named as having prepared or certified a report or valuation for use in connection with a registration statement to be filed with the registration statement. Section 11(a)(4) of the 1933 Act (15 U.S.C. 77k(a)(4)) subjects to section 11 liability persons who consent to being named as having prepared or certified such a report or valuation. Ordinarily, NRSROs do not provide their consent to having their ratings referred to in the prospectus based on their concerns over the effect of sections 7 and 11. Therefore, money market funds have been unable to include their ratings in fund prospectuses; however, such ratings can be included in fund sales literature.

[47] For example, a money market fund rating might assist an investor who desires to avoid funds that hold instruments rated less than the highest rating offered by a praticular NRSRO. Both of the NRSROs that assign ratings to money market funds limit their highest money market fund rating to funds that invest only in U.S. government securities and securities that have been given the highest rating by the NRSRO rating the fund.

[48] *See* paragraphs (a)(2)(iv) and (a)(3)(iii) of the current rule and proposed paragraph (c)(3). The reponsibility for this determination is placed on the fund's board of directors which may delegate the day-to-day function of determining credit quality to the fund's investment adviser (its "delegate"), provided that the board retains sufficient oversight. That is, the board must, at a minimum, establish and approve procedures that the adviser will follow, and thus have knowledge in advance how the adviser will perform its functions. In addition, the board should assure itself that the adviser's methods are reasonable and must review periodically the adviser's performance. *See* Release 13380, *supra* note 8, 48 FR at 32557.

[49] Release 13380, *supra* note 8, 48 FR at 32560.

[50] *See* Letter to Registrants (pub. avail. May 8, 1990) and Investment Company Institute (pub. avail. Dec. 6, 1989).

[51] *See* paragraphs (a)(2)(iv) and (a)(3)(iii) of the current rule.

Division has taken the position that for a board of directors or its delegate to conclude that an unrated security is of "high quality," no similar security of the same issuer can be rated less than "eligible quality." Further, simply because an outstanding security with similar characteristics is rated "eligible quality," the board or its delegate could not, without further analysis, conclude that the unrated security is "eligible quality" (or presents minimal credit risks).[52]

The Commission proposes to codify the Division's position in the proposed amended rule. Proposed paragraph (a)(15) would define the term "unrated security" to mean a security that (i) does not have a current rating assigned by any NRSRO and is issued by an issuer that does not have a current rating assigned by any NRSRO with respect to its unsecured short-term debt (*i.e.*, debt maturing in one year or less); or (ii) is the subject of an external credit support agreement that was not in effect when the security was assigned its rating. In analyzing securities that fall under the second category, the board would consider whether the security, taking into account the external agreement, is of comparable quality to an "eligible quality" security. The security could not be judged to be of better quality than that of comparable debt securities of the issuer of the external agreement.[53] Porposed paragraph (a)(5) would provide that an unrated security could not be determined to be of eligible quality if another short-term debt security issued by the same issuer had received a rating of less than "eligible quality" from a NRSRO unless, as provided in proposed paragraph (a)(15), it is the subject of an external credit support agreement. As is the case under the current rule, under the proposed amendments, if an issuer's long-term debt has been rated, but its short-term debt has not, the fund's board of directors (or its delegate) could not rely on the long-term rating as the sole basis for concluding that a security is "eligible quality," although the board may take this factor into account in its evaluation. Comment is requested on the proposed definition of "unrated security" and whether the proposed definition of "eligible quality" would impose any additional burdens on funds in connection with the analysis of the credit quality of an unrated security.

[52] *See* Letter to Registrants (pub. avail. May 8, 1990).

[53] The second category codifies the position taken by the Commission in Release 13380, *supra* note 8, at n. 35.

c. Changes in Credit Risk and Quality

Rule 2a–7 does not explicitly prescribe the action the board (or its delegate) should take in the event the quality of a security is lowered after the security has been acquired by the fund. Release 13380 states that, where a portfolio security is no longer "high quality," the board must cause the money market fund to dispose of the security as soon as practicable, but that an exception may exist where the directors determine that it would not be in the best interest of the fund to sell such security.[54] The Commission believes that it may be useful if the duties of the board, as summarized in Release 13380, are incorporated into the rule.

In the event securities are downgraded by a NRSRO and yet are still "eligible quality" securities, *i.e.*, rated at least in the second highest category by all NRSROs which have assigned ratings to such issuer or security, proposed paragraph (c)(5)(i) provides that a prompt reassessment must be made as to whether the security presents minimal credit risks and such action must be taken as the board determines to be in the best interests of the fund and its shareholders. The board may, of course, determine that it is in the best interest of the fund to continue to hold the security.

A security may expose a money market fund to a greater potential for loss if (i) it is in default, (ii) it is downgraded by any NRSRO below the top two ratings, or (iii) the board (or its delegate) determines it no longer presents minimal credit risks. Where a money market fund holds such a security, its board of directors should take prompt action to protect the best interests of fund shareholders. Proposed paragraph (c)(5)(ii) of the rule provides that the money market fund must dispose of such a security "as soon as practicable" absent a specific finding by the board that this would not be in the best interests of the fund.

A money market fund holding defaulted portfolio securities that, immediately before the default, accounted for one half of one percent or more of fund assets would, under proposed paragraph (c)(5)(iii), be required promptly to notify the Commission of this fact and of what action the fund intends to take.[55]

[54] *Id.* at nn. 22 and 40.

[55] The proposal would require the notification to be first made by telephone or facsimile transmission, thereafter followed by a first class letter, directed to the attention of the Director of the Division of Investment Management of the Commission.

Rule 2a–7(a)(2)(vi) currently requires quality determinations to be recorded in the books and records of the fund, and to be made available for inspection by the Commission. The amended rule also would require that records be kept with respect to the actions taken in the event a portfolio security is in default or is downgraded.[56]

Comment is requested on these proposed changes. Specifically, in light of proposed paragraph (c)(5)(iii) requiring notice to the Commission in certain circumstances, are the other proposed changes necessary?

*3. Maturity of Portfolio Securities*

Rule 2a–7 provides that a money market fund must maintain a dollar-weighted average portfolio maturity ("average maturity") appropriate for its objective of maintaining a stable price per share, and that in no event can a fund maintain an average maturity that exceeds 120 days or purchase a security with a remaining maturity of more than one year.[57] This provision codified the terms of exemptive orders issued prior to the rule's adoption. During the mid-1970s, average maturities for all money market funds as a group ranged between 70 and 110 days. However, since 1978, the average industry maturity has never ranged higher than forty-three days.[58] This dramatic decrease in average maturity apparently reflects both changes in fund portfolio management practices and the adoption in 1986 of amendments to rule 2a-7 that permit funds to more extensively use demand features to shorten the maturity of variable and floating rate instruments, and may also reflect changes in the money markets as well.[59] A shorter average maturity reduces the money market fund's exposure to interest rate risk.[60]

The Commission is proposing to amend rule 2a–7 to provide that the board of directors must establish an average maturity appropriate for the fund, but that in no event shall the fund maintain an average maturity exceeding

[56] *See* proposed paragraph (c)(8). The fund would also be required to report on these actions in its semi-annual report on Form N-SAR [17 CFR 274.101].

[57] *See* paragraphs (a)(2)(iii) and (a)(3)(ii) of the current rule.

[58] See Mutual Fund Fact Book, *supra* note 4, at 103.

[59] Release 14983, *supra* note 21. Since 1986, the average portfolio maturity for all funds has ranged between thirty and thirty-eight days. Between 1983 and 1986, it ranged between thirty-seven and forty-three days. *See* Mutual Fund Fact Book, *supra* note 4.

[60] *See* Standard & Poor's Corp., Credit Reviews—Mutual Funds 11 (Oct. 16, 1989).

ninety days. As in the case of the current 120 day limitation, the ninety day limitation would be a maximum.[61] Comment is requested on the proposal, including whether the proposed amended rule should have a shorter average maturity, for example, sixty or seventy-five days. Additionally, comment is requested generally on the proposed risk-limiting conditions of rule 2a–7. Are these proposed revisions the correct approach to limiting money market fund risks? Are they likely to have adverse effects on competition among money market funds or on the money markets?

The Commission is also proposing to amend the provision of the rule which prohibits a fund from purchasing a security with a remaining maturity of greater than one year.

The Commission is also proposing to amend the provision of the rule which prohibits a fund from purchasing a security with a remaining maturity of greater than one year.[62] The Commission proposes that the maximum remaining maturity be increased to two years.[63] The one year maturity provision is a codification of a condition appearing in exemptive orders issued by the Commission prior to the adoption of rule 2a–7. Experience with money market funds suggests that a one year limitation is not necessary because the weighted average maturity requirement effectively limits the extent to which a fund can invest in securities with longer remaining maturities that would be subject to greater volatility from interest rate fluctuations. However, the Commission is concerned that deleting the one year maturity provision entirely could increase a fund's exposure to credit risks. The Commission requests comment on whether the one year maturity provision should be retained in its present form, whether it should be deleted altogether, or whether some other maximum (*e.g.*, three years) would be appropriate.

The Commission also proposes to delete the Note appended to rule 2a–7 which reminds the boards of directors of money market funds about the difficulties that could arise if funds purchase illiquid securities. This change is intended to simplify the rule and does not indicate a change in the position of the Commission on the necessity for money market funds to maintain a liquid portfolio.

Tax exempt money market funds historically have average maturities which exceed those of taxable money market funds.[64] Comment is requested whether the rule should permit tax exempt money market funds to have longer average maturities than taxable funds and, if so, the average maturity appropriate for such funds, and whether any additional conditions should be imposed on tax exempt funds to address the Commission's concerns if these funds were permitted to have longer average maturities.

As noted above, many money market funds are sold only to institutional investors which may not need the protections that would be afforded by the proposed amendments. Comment is requested on whether funds which limit their investors to institutions should be permitted to continue to operate under the current rule if the proposed amendments are adopted, or whether they should be subject to some or all of the proposed risk-limiting conditions. Commenters are requested to discuss possible definitions for identifying institutional money market funds and which, if any, provisions of rule 2a–7 should apply to such funds.

*4. Investment Companies Holding Themselves Out as Money Market Funds*

There are several mutual funds with substantial assets under management that do not use the amortized cost method of valuation or the penny-rounding method of pricing and are not subject to the risk-limiting conditions of rule 2a–7.[65] Mutual funds not using rule 2a–7 are similar to the funds that rely on the rule in that these mutual funds also seek to maintain a stable price per share by declaring as a daily dividend all income and capital changes. However, because they do not rely on rule 2a–7, these mutual funds can have investment policies that differ substantially from money market funds subject to rule 2a–7. For example, these mutual funds could invest in securities that are less than "eligible quality" or denominated in foreign currency, and have an average portfolio maturity well in excess of that permitted by rule 2a–7, although these practices might make it more difficult for these mutual funds to maintain a stable net asset value.

Fund marketing and disclosure documents encourage investor expectations that money market funds are relatively secure investments and that fund investment policies are designed to maintain a stable net asset value.[66] These expectations are reflected in the risk-limiting conditions of rule 2a–7. It may not be appropriate for an investment company to hold itself out as or create the implication that it is a money market fund when it engages in investment strategies that are not consistent with a policy of maintaining a stable net asset value. Therefore, the Commission proposes to revise rule 2a–7 to make it unlawful for a registered investment company to (1) adopt "money market" or similar terms as part of its name or title, or name or title of any security of which it is the issuer, or (2) hold itself out to investors as a money market fund, or the equivalent of a money market fund, unless the company meets the risk-limiting conditions of paragraphs (c)(2), (c)(3)

[61] It should be noted that this provision of rule 2a–7 imposes an obligation on the directors of the fund to ascertain that the fund is maintaining an average maturity that, given market conditions, will permit it to maintain a stable price or net asset value per share. Thus, during periods of very high market volatility, a ninety day average maturity may be too long, and the board would be required to take such actions as are necessary to assure that the average maturity is adjusted accordingly.

[62] Paragraph (c)(10) of the current rule defines "one year" to mean a period of 365 days or, in the case of securities that are denominated as and intended to be "one year" notes but actually mature in a somewhat longer period, 375 days. The latter provision was designed to permit funds to invest in certain types of government securities that had this characteristic. *See* Release 13380, *supra* note 8, at n. 13. The proposed amendments would eliminate the definition of "one year" and define "two years" to be a period of either 730 or 731 days. Comment is requested on whether this definition should be modified to take into account the characteristics of any specific type of security.

[63] Paragraph (b) of the current rule includes special provisions for determining the maturity of securities, including variable rate securities and securities subject to demand features. Paragraph (d) of the proposed amended rule would incorporate these provisions of the current rule, modified to reflect the change from one to two years. Comment is requested on whether any other provisions of paragraph (b) of the current rule should be changed.

[64] During the years 1987–1989, the average maturities ranged between thirty-one and fifty days for taxable money market funds and thirty-six to sixty-seven days for tax-free money market funds. Source: IBC/Donoghue's Money Fund Report (1987–1988).

[65] The Division has taken the position that, if an investment company has a name indicating that it is a money market fund, it should have investment policies requiring investment of at least eighty percent of its assets in debt securities maturing in thirteen months or less. *See* Guide 1 to Form N–1A. The Guide is based on section 35(d) of the 1940 Act (15 U.S.C. 80a–34(d)) which provides, in effect, that a registered investment company may not use a name or title which may be deceptive or misleading. Names which suggest that an investment company is a money market fund include any name which includes the word "money market" or a name which suggests that an investment in the fund is the functional equivalent of cash (such as "money fund," "cash fund," "cash accumulation fund," "cash management fund," "cash reserves," "cash trust," "liquid reserves," "ready assets" or "liquid assets"), or a name that suggests that dividends are declared on a daily basis in order to maintain a stable per share net asset value (such as "daily dividends" or "daily income"), or derivations of the foregoing.

[66] *See, e.g.*, Money Market Funds: A Part of Every Financial Plan (publication of Investment Company Institute).

and (c)(4) of proposed amended rule 2a-7. The Commission believes that these conditions are key to investors' perceptions concerning the safety of money market funds. These conditions are designed to reduce the likelihood of deviations between a fund's share price and its market based per share net asset value by requiring funds to invest in eligible quality instruments that are not significantly affected by changes in interest rates.

An investment company holding itself out as a money market fund would not be required to use the amortized cost method of valuation or the penny-rounding method of pricing. Nor would the rule require a fund that does not meet the risk-limiting conditions of the rule to change its investment policies. The rule would only require such a fund to meet the risk-limiting conditions of the rule if it continued to hold itself out as a money market fund, and any money market fund could continue to maintain a stable price per share through means other than amortized cost or penny-rounding.

*5. Money Market Fund Prospectus Disclosure*

Articles about money market funds often contain the statement that "no investor has ever lost money in a money market fund."[67] While money market funds have been one of the safest available investment options, the Commission believes it is important for investors to understand that money market funds are not risk-free.[68] In addition, it is important for investors in money market funds, including those that invest in government securities, to understand that the U.S. government does not guarantee the value of their investment in the fund.[69]

As a result, the Commission is proposing to revise the registration statement forms used by money market funds to require the cover page of the prospectus to disclose prominently that the shares of a money market fund are neither insured nor guaranteed by the U.S. government and that there is no assurance that the fund will be able to maintain a stable net asset value of $1.00 per share.[70] The Commission requests comment on the proposed disclosure, whether additional or alternative disclosure would be appropriate, and the location of the disclosure in the prospectus.

*6. Tax Exempt Money Market Funds*

There are currently 222 money market funds that hold themselves out as distributing income that is exempt from federal income tax, including eighty-three that also distribute income exempt from state and local income tax.[71] Tax exempt funds have a total of $75.6 billion dollars in assets and represent approximately seventeen percent of the assets of all money market funds.[72] Many of these funds could not meet the proposed diversification requirements and the limitations that would be placed on investment in securities that have not received the highest NRSRO rating without substantially restructuring their portfolios and, perhaps, losing some of their tax advantages.[73] Therefore, as noted above, the Commission is not at this time proposing to make the diversification requirements (other than the existing diversification requirement relating to puts) or the five percent quality test applicable to tax exempt funds. Comment is requested on what conditions, if any, should be imposed on tax exempt funds as a substitution for the diversification requirements and the five percent quality test (such as additional risk disclosure), or whether it is possible to apply the same conditions.

*7. Funds Eligible to Quote Seven Day Yields*

Rule 482 under the 1933 Act permits registered investment companies, including money market funds, to publish "omitting prospectus" advertisements subject to certain conditions set out in the rule.[74] Since 1980, the rule has standardized performance advertising by money market funds. Under the rule, money market funds, as defined in the rule, have been limited to quoting seven day yield quotations calculated in accordance with a prescribed formula. The Commission took this action because the lack of comparability of money market fund yield quotations could confuse and mislead investors, and because of the significant role which yield quotations were playing in promoting money market funds.[75]

The Commission amended rule 482 in 1988 to standardize performance information in advertisements of other types of management investment companies ("mutual funds").[76] The 1988 amendments require other types of mutual funds to include uniformly computed total return quotations for specified periods in any performance advertising.[77] This requirement was imposed out of concern that, for these funds, a yield quotation alone suggests "a promised return such as a yield of a bank certificate of deposit, or * * * stability of principal such as that of a money market fund * * *."[78] The Commission did not require money market fund yield quotations to be accompanied by total return quotations because the yields of money market funds will generally be the same as their total return. This is because the principal value of money market fund

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[67] *See* Laing, Never Say Never, *supra* note 15, and Zigas, How Risky is Your Money Market Fund?, Bus. Wk., Mar. 26, 1990, at 86.

[68] As noted above, there have been instances when money market funds have held securities in their portfolios which have defaulted. The investment advisers or sponsors of the funds voluntarily purchased the defaulted securities so that the funds experienced no losses and were able to avoid having their price per share fall below $1.00. There is no assurance that, in the future, when a money market fund holds defaulted securities, its adviser or sponsor voluntarily will absorb any losses so that the fund will not have to break net asset value.

[69] One hundred fourteen money market funds invest exclusively in U.S. government and agency securities or repurchase agreements collateralized by such securities; of these, forty-eight money market funds invest exclusively in U.S. treasury securities. Money Fund Report, *supra* note 3, at 2. However, the U.S. government does not guarantee the market value of these securities, and these funds are not risk free, since the value of portfolio securities will fluctuate with changes in interest rates. In addition, repurchase agreements may present credit risks. *See supra* note 30.

[70] The proposal would amend Form N-1A, the registration statement for all open-end investment companies, including money market funds, and Form N-3, the registration statement for separate accounts organized as management investment companies.

[71] Money Fund Report, *supra* note 3, at 2.

[72] *Id.*

[73] Tax exempt funds often concentrate investment in the obligations issued by a single state (or municipalities located in the state). *See* Mutual Fund Fact Book, *supra* note 4, at 74; Money Fund Report, *supra* note 3, at 9-12. Therefore, they may only be able to invest in a limited number of issuers, making diversification more difficult to achieve.

[74] The advertisements must (i) contain only information the substance of which is included in a section 10(a) prospectus, (ii) state conspicuously where a prospectus may be obtained, and (iii) not contain, nor be accompanied by, any application by which a prospective investor may purchase shares of the fund. *See* rule 482(a)(2), (a)(3) and (a)(5) (17 CFR 230.482(a)(2), (a)(3) and (a)(5)).

[75] Investment Company Act Rel. No. 11379 (Sept. 30, 1980) (45 FR 67079 (Oct. 9, 1980)). The rule in effect in 1980 limited money market funds to advertising yields calculated in accordance with Form N-1, the predecessor to Form N-1A.

[76] Investment Company Act Rel. No. 16245 (Feb. 2, 1988) (53 FR 3868 (Feb. 10, 1988)) (hereinafter "Release 16245"). The amendments to rule 482 permit fund advertisements to quote a uniformly calculated yield, tax equivalent yield, and total return, and to quote performance by non-standardized total return quotations provided that any non-standardized total return quotation is accompanied by uniformly calculated one, five and ten year average total return quotations.

[77] The yield quotation prescribed for mutual funds also differs from the money market yield formula.

[78] Release 16245, *supra* note 76, at text accompanying n. 12. The Commission stated that use of a yield quotation alone in an advertisement may omit material information necessary to make the advertisement not misleading.

shares generally does not change and portfolio securities are generally held to maturity, thus avoiding the realization of gains and losses upon sale.[79]

Currently rule 482 defines "money market fund" as an investment company which holds itself out as being a "money market fund" or which has an investment policy calling for investment of at least eighty percent of its assets in debt securities maturing in thirteen months or less. This broad definition encompasses funds that can have investment policies that could be inconsistent with the notion of stability of principal.[80] As a result, it may not be correct to assume that a yield quotation for such a fund, by itself, is appropriate. Accordingly, the Commission is proposing to amend paragraph (d) of rule 482 to limit the definition of "money market funds" to those funds that meet the risk-limiting conditions set forth in proposed amended rule 2a–7.[81]

The proposed amendment would not require funds to use the amortized cost method of valuation or the penny rounding method of pricing in order to quote seven day yields. These funds could continue to use the full pay-out method to maintain their stable per share net asset value. However, the amendments to rule 482 should provide further assurance that the special treatment afforded to money market funds under that rule will be limited to those funds for which the risk that yield will diverge from total return is minimal. It should also further enhance the comparability of money market fund advertisements by limiting use of the seven day yield format to those funds which share certain basic investment policies.

### III. Transition Period

If the proposed rule and form amendments are adopted, the Commission would expect to provide that the amendments would not become effective for ninety days after publication in the **Federal Register** in order to give registrants, issuers or commercial paper and other securities, and other participants in the money markets an appropriate period of time to make any changes required by the rule including, in the case of investment companies that could no longer hold themselves out as money market funds, amendments to disclosure documents. Comment is requested on whether ninety days would be sufficient or whether a longer period would be appropriate.

### IV. General Request for Comments

Any interested persons wishing to submit written comments on the proposed rule and form changes that are the subject of this Release, to suggest additional changes (including changes to provisions of rule 2a–7 that the Commission is not proposing to amend), or to submit comments on other matters that might have an impact on the proposals contained herein, are requested to do so. Commenters suggesting alternative approaches are encouraged to submit proposed rule text.

### V. Cost/Benefit of the Proposal

The Commission believes that the proposal will not substantially change costs for money market funds. Most money market funds rely upon rule 2a–7 and must comply with the provisions of the rule. The imposition of further portfolio quality and diversification requirements will not require most funds to alter their portfolios because they will already be in compliance; other funds will be able to come into compliance at minimal cost simply by investing in higher-rated securities as current holdings mature; and some funds will have to sell securities and reinvest the proceeds in higher-rated securities. Compliance with the shorter average maturity requirements should not impose a material amount of increased costs because the average maturity of most funds currently is less than the requirement of the proposed amendment to rule 2a–7. Investment companies that hold themselves out as money market funds but do not currently rely on rule 2a–7 also should not have substantially increased or decreased costs if these investment companies are required to comply with the risk-limiting conditions of the proposed rule. Many of these investment companies have investment policies that substantially mirror the risk-limiting conditions of the proposed rule, or have portfolios that would comply with those conditions in most material respects. Since some funds may, however, be required to change their names or methods of operation, the Commission requests comment on the extent to which these investment companies will incur increased costs under the proposal.

The Commission believes that the additional recordkeeping requirements that the proposed amendments would impose in connection with the determinations required to be made when the credit rating of a security is down-graded should not cause any substantial burden on funds. Other amendments to the rule simply clarify existing fund obligations.

The proposal would limit a money market fund in its investments in the securities of any one issuer, and money market funds and their shareholders should benefit from the proposal as a result of the reduced exposure of funds to interest rate and market risks, and therefore, losses. The Commission recognizes that the yield that has been realized by some funds may be reduced to the extent that they are required to limit their investment in lower-rated, higher yielding securities, but believes that the benefit of reduced risks to funds and their investors outweigh the possibility of reduced yield.

In connection with the amendments to rule 482, those investment companies that could no longer advertise a seven-day yield may incur some costs in establishing procedures to calculate the performance measures prescribed by the rule (thirty-day yield and total return quotations), but those should not be substantial because computer software packages are available to make this computation.[82] The computation of total return should not be costly because it is based on net asset values already calculated by funds on a daily basis.

The Commission requests comment on the number of funds that would be affected by the proposed changes. The Commission requests specific comment on its assessment of the costs and benefits associated with the proposal, including specific estimates of costs and benefits.

### VI. Summary of Initial Regulatory Flexibility Analysis

An Initial Regulatory Flexibility Analysis in accordance with 5 U.S.C. 603 has been prepared concerning the proposed amendments. The analysis states that the proposed amendments to rule 2a–7 are prompted by the significant changes which have occurred in the money markets since rule 2a–7 was adopted in 1983. Money market funds are investing a greater amount of assets in commercial paper, and there have been instances of defaults of

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[79] *Id.*

[80] *See* Part II.4. of this Release. These funds do not meet the conditions, and do not take advantage, of the exemption provided by rule 2a–7.

[81] The Commission is also proposing conforming amendments to Item 22(a) of Form N–1A, Item 25(a) of Form N–3, and Item 21(a) of Form N–4, which set forth the yield formulae used by money market funds and money market funded separate accounts issuing variable annuity contracts. In addition, the Commission is proposing to revise rule 34b–1 under the 1940 Act to limit use of the seven day yield in sales literature. Note that rule 34b–1 has also been proposed to be amended in Investment Company Act Rel. No. 17294 (Jan. 8, 1990) (55 FR 1460 (Jan. 16, 1990)).

[82] Non-money market mutual funds have been performing this calculation since July 1, 1988.

commercial paper, some of which was held by money market funds. In addition, there are some money market funds that do not use the exemption provided by rule 2a–7 and therefore are not subject to the risk-limiting conditions of the rule. Further, fund marketing and disclosure documents have encouraged investor expectations that money market funds are relatively secure investments and that fund investment policies are designed to maintain a stable net asset value.

The analysis summarizes the proposed amendments to rule 2a-7 and the related rules and forms. The amendments to rule 2a–7 would tighten the conditions of the rule relating to the diversity and quality of money market fund investments, and would make it illegal for any investment company to hold itself out as a money market fund or the equivalent, unless it met the risk-limiting conditions of the rule. Money market funds would also be required to make prominent cover page prospectus disclosure that the shares of the fund are neither insured nor guaranteed by the U.S. government, and that the fund may not be able to maintain its stabilized price per share.

The analysis states that the objectives of the proposed amendments are to (i) reduce the exposure of a money market fund to market and interest rate risks, and thus reduce the chance that a money market fund will break a dollar; (ii) require investment companies that hold themselves out as money market funds or the equivalent to meet certain risk-limiting conditions of the rule; and (iii) notify investors that money market funds are subject to investment risk and that fund shares are not insured or guaranteed by the U.S. government.

The analysis states that as of May 1, 1990, 86 money market funds met the Commission's definition of small entity found in rule 0–10 of the 1940 Act (17 CFR 270.0–10). Of these 86 funds, 50 were tax free funds. Tax free funds would not be subject to certain of the proposed amendments to rule 2a–7.

The reporting, recordkeeping and other compliance requirements of the proposed amendments should not be significantly greater than currently imposed by rule 2a–7. The analysis also states that the additional costs, if any, of the proposed amendments should not be any greater for small money market funds than the costs to other money market funds. The analysis further states that the Commission believes there are no duplicative, overlapping or conflicting rules.

The analysis discusses the significant alternatives to the proposed amendments that would accomplish their objectives and while minimizing any significant economic impact of the proposals on small funds. For example, the analysis states that the Commission considered the establishment of different compliance or reporting requirements or timetables that would take into account the resources available to small money market funds. In addition, the analysis states that the Commission considered the simplification of compliance and reporting requirements under rule 2a–7 for small money market funds. The use of performance rather than design standards was considered. Lastly, the Commission considered the alternative of exempting small money market funds from one or more of the conditions of the rule. The analysis concludes that these alternatives would not accomplish the objectives of the rule, nor would the alternatives be consistent with the statutory mandate of the Commission under the 1940 Act. A copy of the analysis may be obtained by contacting Richard Pfordte, Office of Disclosure and Adviser Regulation, Division of Investment Management, U.S. Securities and Exchange Commission, 450 Fifth Street NW., Washington, DC 20549.

## VII. Statutory Authority

The Commission is proposing to amend rule 2a–7 under the exemptive authority set forth in sections 6(c) (15 U.S.C. 80a–6(c), 22(c) (15 U.S.C. 80a–22(c)), 34(b) (15 U.S.C. 80a–33(b)), and 38(a) (15 U.S.C. 60a–37(a)) of the Investment Company Act of 1940. The authority citations for the amendments to the rules and forms precede the text of the amendments.

## VIII. Text of Proposed Rule and Form Amendments

*List of Subjects In 17 CFR Parts 230, 239, 270 and 274*

Investment companies, Reporting and recordkeeping requirements, Securities.

For the reasons set out in the preamble, the Commission is proposing to amend chapter II, title 17 of the Code of Federal Regulations as follows:

## PART 230—GENERAL RULES AND REGULATIONS, SECURITIES ACT OF 1933

1. The authority citation for part 230 continues to read, in part, as follows:

**Authority:** 15 U.S.C. 77b, 77f, 77g, 77h, 77j, 77s, 77sss, 78c, 78l, 78m, 78n, 78o, 78w, 79t, and 80a–37, as amended, unless otherwise noted.

2. Section 230.482 is amended by revising paragraphs (a)(6) and (d) to read as follows:

**§ 230.482 Advertising by an investment company as satisfying requirements of section 10.**

(a) * * *

(6) In the case of an advertisement containing performance data of an open-end management investment company or a separate account registered under the 1940 Act as a unit investment trust offering variable annuity contracts ("trust account"), it includes a legend disclosing that the performance data quoted represents past performance and that the investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost; *Provided, however,* That an advertisment may omit legend disclosure pertaining to the fluctuation of the principal value of an investment in a money market fund described in paragraph (d) of this section. In addition, if a sales load or any other nonrecurring fee is charged, the advertisement must disclose the maximum amount of the load or fee; if the sales load or fee is not reflected, the advertisement must also disclose that the performance data does not reflect its deduction, and that, if reflected, the load or fee would reduce the performance quoted.

* * * * *

(d) In the case of an investment company that holds itself out to be a "money market" fund and meets the conditions of paragraphs (c)(2), (c)(3), and (c)(4) of rule 2a–7 under the Investment Company Act of 1940 (17 CFR 270.2a–7) (such an investment company being hereinafter referred to as a "money market fund"), any quotation of the money market fund's yield contained in an advertisement shall be:

(1) A quotation of current yield based on the method of computation prescribed in Form N–1A (set forth in §§ 239.15A and 274.11A of this chapter), Form N–3 (set forth in §§ 239.17a and 274.11b of this chapter), or Form N–4 (set forth in §§ 239.17b and 274.11c of this chapter) and identifying the length of and the date of the last day in the base period used in computing that quotation; or

(2) A quotation of current yield described in paragraph (d)(1) of this section and a corresponding quotation of effective yield based on the method of computation prescribed in Forms N–1A, N–3, or N–4; *Provided, however,* That when both a quotation of current yield and effective yield are used in the same advertisement, each quotation shall

relate to an identical base period and shall be given equal prominence.

* * * * *

## PART 270—RULES AND REGULATIONS, INVESTMENT COMPANY ACT OF 1940

4. In the authority citation to part 270, the general authority continues to read as set forth below, the specific authority for §§ 270.2a–7, 270.2a–41 and 270.12d3–1 is revised as follows:

Authority: Secs. 38, 40, 54 Stat. 841, 842; 15 U.S.C. 80a–37, 80c–89; The Investment Company Act of 1940, as amended, 15 U.S.C. 80a–1 *et seq.*; unless other wise noted;

* * * * *

Sections 270.2a–7, 270.2a–41 and 270.12d3–1 also issued under secs. 6(c) (15 U.S.C. 80a–6(c)), 22 (15 U.S.C. 80a–22), 34 (15 U.S.C. 80a–33), 38 (15 U.S.C. 80a–37), and 40 (15 U.S.C. 80a–39);

* * * * *

5. By revising § 270.2a–7 to read as follows:

### § 270.2a–7 Money market funds.

(a) *Definitions*—(1) *Amortized Cost Method* of valuation shall mean the method of calculating an investment company's net asset value whereby portfolio securities are valued at the fund's acquisition cost as adjusted for amortization of premium or accumulation of discount rather than at their value based on current market factors.

(2) *Demand Feature* or *Demand Instrument* shall mean a Put that entitles the holder to receive the principal amount of the underlying security or securities and which may be exercised either:

(i) At any time on no more than 30 days' notice; or

(ii) At specified intervals not exceeding Two Years and upon no more than 30 days' notice.

(3) *Floating Rate Instrument* shall mean a security the terms of which provide for the adjustment of its interest rate whenever a specified interest rate (such as a bank's designated prime lending rate) changes and which, at any time, can reasonably be expected to have a market value that approximates its par value.

(4) *Government Security* shall mean any Government Security as defined in section 2(a)(16) of the Act.

(5) *Eligible Quality* shall mean:

(i) A security which has been rated (or that has been issued by an issuer that has been rated) by all NRSROs that have issued a rating with respect to such security (or issuer) in one of the two highest rating categories (within which there may be sub-categories or gradations indicating relative standing); or

(ii) An Unrated Security which is of comparable quality to a security meeting the requirements of paragraph (a)(5)(i) of this section, as determined by the money market fund's board of directors. An Unrated Security is not Eligible Quality if any Short-term debt security (or, if the remaining maturity is more than one year, any long-term debt security) issued by the same issuer currently has a rating of less than Eligible Quality from any NRSRO;

*Provided, however,* That:

(A) A Demand Instrument is not Eligible Quality unless both the Short-term and long-term debt of the issuer are Eligible Quality, except that a Demand Instrument that has an Unconditional Demand Feature may be determined to be Eligible Quality based solely on whether the issuer's Short-term debt is Eligible Quality; and

(B) The board of directors may base its determination that a Standby Commitment is Eligible Quality upon a finding that the issuer of the commitment presents a minimal risk of default.

(6) *NRSRO* shall mean any nationally recognized statistical rating organization, as that term is used in rule 15c3–1(c)(2)(vi)(F) under the Securities Exchange Act of 1934 (17 CFR 240.15c3–1(c)(2)(vi)(F)), that is not an affiliate person, as defined in section 2(a)(3)(C) of the Act (15 U.S.C. 80a–2(a)(3)(C)), of the issuer of, or any insurer, guarantor or provider of credit support for, the instrument.

(7) *Penny-Rounding Method* of pricing shall mean the method of computing an investment company's price per share for purposes of distribution, redemption and repurchase whereby the current net asset value per share is rounded to the nearest one percent.

(8) A *Put* shall mean a right to sell a specified underlying security or securities within a specified period of time and at a specified exercise price, that may be sold, transferred or assigned only with the underlying security or securities.

(9) *Security Not Having the Highest Rating* shall mean any security that is rated by any NRSRO below its highest rating category or, in the case of an Unrated Security, would not be of comparable quality to a security receiving a NRSRO's highest rating, as determined by the money market fund's board of directors.

(10) *Short-term* shall mean a remaining maturity of 366 days or less.

(11) *Standby Committment* shall mean a Put that entitles the holder to achieve same day settlement and to receive an exercise price equal to the amortized cost of the underlying security or securities plus accrued interest, if any, at the time of exercise.

(12) *Total Assets* shall mean, with respect to a money market fund using the Amortized Cost Method, the total amortized cost of its assets and, with respect to any other money market fund, the total market-based value of its assets.

(13) *Two Years* shall mean 730 or 731 days, as the case may be.

(14) An *Unconditional Put* or an *Unconditional Demand Feature* shall mean a Put or a Demand Feature that by its terms would be readily exercisable in the event of a default in payment of principal or interest on the underlying security or securities.

(15) An *Unrated Security* shall mean a security that:

(i) Does not have a current rating assigned by any NRSRO and is issued by an issuer that does not have a current rating assigned by any NRSRO with respect to its unsecured Short-term debt; or

(ii) Is a rated security that is the subject of an external credit support agreement that was not effect when the security (or the issuer) was assigned its rating.

(16) A *Variable Rate Instrument* shall mean a security the terms of which provide for the adjustment of its interest rate on set dates (such as the last day of a month or calendar quarter) and which, upon such adjustment, can reasonably be expected to have a market value that approximates its par value.

(b) *Holding Out.* It shall be an untrue statement of material fact within the meaning of section 34(b)(1) of the Act (15 U.S.C. 80a–33(b)(1)) for a registered investment company, in any registration statement, application, report, account, record, or other documents filed or transmitted pursuant to the Act, including any advertisement, pamphlet, circular, form letter, or other sales literature addressed to or intended for distribution to prospective investors that is required to be filed with the Commission by section 24(b) of the Act (15 U.S.C. 80a–24(b)) to:

(1) Adopt *money market* as part of its name or title or the name or title of any security of which it is the issuer, or

(2) Hold itself out to investors as, or adopt a name which suggests that it is, an money market fund or the equivalent of a money market fund, unless such registered investment company meets the conditions of paragraphs (c)(2), (c)(3), and (c)(4) of this section. For purposes of this paragraph, a name

which suggests that a registered investment company is a money market fund or the equivalent thereof shall include one which uses such terms as "cash," "liquid," "money," "ready assets" or similar terms.

(c) *Share Price Calculations.* The current price per share, for purposes of distribution, redemption and repurchase, of any redeemable security issued by any registered investment company ("money market fund"), notwithstanding the requirements of section 2(a)(41) of the Act (15 U.S.C. 80a–2(a)(41)) and of rule 2a–4 (17 CFR 270.2a–4) and rule 22c–1 (17 CFR 270.22c–1) thereunder, may be computed by use of the Amortized Cost Method or the Penny-Rounding Method; *Provided, however,* That:

(1) The board of directors of the money market fund shall determine, in good faith, that it is in the best interests of the fund and its shareholders to maintain a stable net asset value per share or stable price per share, by virtue of either the Amortized Cost Method or the Penny-Rounding Method, and that the money market fund will continue to use such method only so long as the board of directors believes that it fairly reflects the market-based net asset value per share.

(2) The money market fund shall maintain a dollar-weighted averager portfolio maturity appropriate to its objective of maintaining a stable net asset value per share or price per share; *Provided, however,* That the money market fund will not:

(i) Purchase any instrument with a remaining maturity of greather than Two Years, or

(ii) Maintain a dollar-weighted average portfolio maturity which exceeds ninety days.

(3) The money market fund will limit its portfolio investments, including Puts and repurchase agreements, to those United States dollar-denominated instruments which its board of directors determines present minimal credit risks *and* which are at the time of acquisition Eligible Quality.

(4)(i) Except for a money market fund holding itself out as distributing income exempt from federal income tax ("tax exempt fund"), immediately after the acquisition of any security (other than a Government security), the money market fund will not have invested more than five percent of its Total Assets in securities issued by that issuer or, in the event that such security is a Security Not Having the Highest Rating, more than one percent of its Total Assets in securities issued by that issuer and more than five percent of its Total Assets in Securities Not Having the Highest Rating. For purposes of making calculations under this paragraph (4)(i), a repurchase agreement relating entirely to Government securities shall be deemed to be an acquisition of the underlying Government securities, provided that the obligation of the seller to repurchase the securities from the money market fund is collateralized fully by the Government securities. "Collateralized fully" shall mean that:

(A) The value of such Government loss of interest) that the money market fund could reasonably expect to incur if the seller defaults) is, and during the entire term of the repurchase agreement remains, at least equal to the resale price provided in the agreement;

(B) The money market fund or its custodian either has actual physical possession of the collateral or, in the case of a security registered on a book entry system, the book entry is maintained in the name of the money market fund or its custodian, and the entry evidences the money market fund's right to possess the collateral in the event of a default by the seller; and

(C) The money market fund retains an unqualified right to sell the collateral in the event of a default by the seller.

(ii) In the case of a tax exempt fund, immediately after the acquisition of any Put, the tax exempt fund will not, with respect to 75 percent of its Total Assets, have invested more than 5% of its Total Assets in securities underlying Puts from the same institution.

(iii) For purposes of this paragraph:

(A) A Put will be considered to be from the party to whom the money market fund will look for payment of the exercise price;

(B) An Unconditional Put will be considered to be a guarantee of the underlying security or securities; and

(C) A guarantee of a security will not be deemed to be a security issued by the guarantor, provided that, the value of all securities issued or guaranteed by the guarantor shall not exceed ten percent of the money market fund's Total Assets.

(5)(i) In the event that:

(A) A portfolio security of a money market fund is downgraded by any NRSRO to the second highest rating category assigned to issuer is downgraded by any NRSRO to the second highest rating category of the NRSRO; or

(B) The board of directors determines that an Unrated Security no longer is of comparable quality to a security rated by a NRSRO in the highest rating category but still is of Eligible Quality, the board of directors of the money market fund shall reassess promptly whether such security presents minimal credit risks and shall cause the money market fund to take such action as the board of directors determines is in the best interests of the money market fund and its shareholders.

(ii) In the event:

(A) Of a default of a portfolio security;

(B) A portfolio security of amoney market fund ceases to be Eligible Quality; or

(C) The money market fund's board of directors determines that a security no longer presents minimal credit risks, the board of directors of the money market fund, absent a finding by the board of directors that such action would not be in the best interests of the money market fund, shall cause the money market fund to dispose of such security as soon as practicable, by sale, exercise of any Demand Feature or otherwise.

(iii) In the event of a default of a portfolio security which, immediately before the default accounted for one half of one percent or more of a money market fund's Total Assets, the money market fund shall promptly notify the Commission of such fact and the actions the money market fund intends to take in response to such situation. Notification under this paragraph shall be made telephonically or by means of a facsimile transmission, followed by letter sent by first class mail and directed to the attention of the Director of the Division of Investment Management.

(6) In the case of a money market fund using the Amortized Cost Method:

(i) In supervising the money market fund's operations and delegating special responsibilities involving portfolio management to the money market fund's investment adviser, the money market fund's board of directors, as a particular responsibility within the overall duty of care owed to its shareholders, shall establish procedures reasonably designed, taking into account current market conditions and the money market fund's investment objectives, to stabilize the money market fund's net asset value per share, as computed for the purpose of distribution, redemption and repurchase, at a single value.

(ii) Included within the procedures adopted by the board of directors shall be the following:

(A) Procedures adopted whereby the extent of deviation, if any, of the current net asset value per share calculated using available market quotations (or an appropriate substitute which reflects current market conditions) from the money market fund's amortized cost price per share, shall be determined at such intervals as the board of directors deems appropriate and are reasonable

in light of current market conditions; periodic review by the board of directors of the amount of the deviation as well as the methods used to calculate the deviation; and maintenance of records of the determination of deviation and the board's review thereof;

(B) In the event such deviation from the money market fund's amortized cost price per share exceeds ½ of 1 percent, a requirement that the board of directors shall promptly consider what action, if any, should be initiated by the board of directors, and

(C) Where the board of directors believes the extent of any deviation from the money market fund's amortized cost price per share may result in material dilution or other unfair results to investors or existing shareholders, it shall take such action as it deems appropriate to eliminate or reduce to the extent reasonably practicable such dilution or unfair results.

(7) In the case of a money market fund using the Penny-Rounding Method, in supervising the money market fund's operations and delegating special responsibilities involving portfolio management to the money market fund's investment adviser, the money market fund's board of directors undertakes, as a particular responsibility within the overall duty of care owed to its shareholders, to assure to the extent reasonably practicable, taking into account current market conditions affecting the money market fund's investment objectives, that the money market fund's price per share as computed for the purpose of distribution, redemption and repurchase, rounded to the nearest one per cent, will not deviate from the single price established by the board of directors.

(8) The money market fund will record, maintain, and preserve permanently in an easily accessible place a written copy of the procedures (and any modifications thereto) described in paragraphs (c)(5), (c)(6) and (c)(7) of this section, and the money market fund will record, maintain, and preserve for a period of not less than six years (the first two years in an easily accessible place) a written record of the board of directors' considerations and actions taken in connection with the discharge of its responsibilities, as set forth above, to be included in the minutes of the board of director's meetings. The documents preserved pursuant to this condition shall be subject to inspection by the Commission in accordance with section 31(b) of the Act (15 U.S.C. 80a–30(b)) as if such documents were records required to be maintained pursuant to rules adopted under section 31(a) of the Act (15 U.S.C. 80a–30(a)). If any action was taken pursuant to paragraphs (c)(5)(ii) or (c)(6)(ii)(C) of this section, the money market fund will report such action on Form N–SAR (17 CFR 274.101) covering the period in which the action was taken and attach a statement to the form describing with specificity the nature and circumstances of such action.

(d) *Maturity of Portfolio Instruments.* For the purposes of this rule, the maturity of a portfolio instrument shall be deemed to be the period remaining until the date noted on the face of the instrument as the date on which the principal amount must be paid, or in the case of an instrument called for redemption, the date on which the redemption payment must be made, except that:

(1) An instrument that is issued or guaranteed by the United States government or any agency thereof which has a variable rate of interest readjusted no less frequently than every Two Years shall be deemed to have a maturity equal to the period remaining until the next readjustment of the interest rate.

(2) A Variable Rate Instrument, the principal amount of which is scheduled on the face of the instrument to be paid in *Two* Years or less, shall be deemed to have a maturity equal to the period remaining until the next readjustment of the interest rate.

(3) A Variable Rate Instrument that is subject to a Demand Feature shall be deemed to have a maturity equal to the longer of the period remaining until the next readjustment of the interest rate or the period remaining until the principal amount can be recovered through demand.

(4) A Floating Rate Instrument that is subject to a Demand Feature shall be deemed to have a maturity equal to the period remaining until the principal amount can be recovered through demand.

(5) A repurchase agreement shall be deemed to have a maturity equal to the period remaining until the date on which the repurchase of the underlying securities is scheduled to occur, or, where no date is specified, but the agreement is subject to demand, the notice period applicable to a demand for the repurchase of the securities.

(6) A portfolio lending agreement shall be treated as having a maturity equal to the period remaining until the date on which the loaned securities are scheduled to be returned, or where no date is specified, but the agreement is subject to demand, the notice period applicable to a demand for the return of the loaned securities.

6. By revising paragraphs (a), (b), and (c) of § 270.34b–1 as follows:

**§ 270.34b–1 Sales literature deemed to be misleading.**

* * * * *

(a) Sales literature containing any investment company performance data (except that of a money market fund described in paragraph (d) of rule 482 (17 CFR 230.482(d)) shall also contain the total return information required by paragraph (e)(3) of rule 482 (17 CFR 230.482(e)(3)).

(b) Sales literature containing a quotation of yield or other similar quotation purporting to demonstrate the income earned or distributions made by the company shall contain a quotation of current yield specified by paragraph (e)(1) of rule 482 (17 CFR 230.482(e)(1)), or, in the case of a money market fund described in paragraph (d) of rule 482, paragraph (d)(1) of rule 482 (17 CFR 230.482(d)(1)).

(c) Sales literature containing a quotation of tax equivalent yield or other similar quotation purporting to demonstrate the tax equivalent of income earned or distributions made by the company shall contain a quotation of tax equivalent yield specified by paragraph (e)(2) and current yield specified by paragraph (e)(1) of the rule 482, or, in the case of a money market fund described in paragraph (d) of rule 482, paragraph (d)(1) or rule 482 [17 CFR 230.482(d)(1)].

* * * * *

## PART 239—FORMS PRESCRIBED UNDER THE SECURITIES ACT OF 1933

## PART 274—FORMS PRESCRIBED UNDER THE INVESTMENT COMPANY ACT OF 1940

7. The authority citation for part 239 continues to read as follows:

Authority: The Securities Act of 1933, 15 U.S.C. 77a *et seq.*, unless otherwise noted.

8. The authority citation for part 274 continues to read as follows:

Authority: The Investment Company Act of 1940, 15 U.S.C. 80a–1 *et seq.*, unless otherwise noted.

**§ 239.15A Form N–1A, registration statement of open-end management investment companies.**

**§ 274.11A Form N–1A, registration statement of open-end management investment companies.**

Note: Form N–1A is not codified in the Code of Federal Regulations.

9. Amending Form N–1A (17 CFR 239.15A and 274.11A), Part A, Item 1, paragrpah (a), by redesignating

paragraph (vi) as paragraph (vii) and adding new paragraph (vi) to read as follows:

* * * * *

**Part A—Information Required in a Prospectus**

*Item 1. Cover Page*

(a) * * *

(vi) In the case of a Registrant holding itself out as a money market fund, a prominent statement that (A) the securities of the fund are neither insured nor guaranteed by the U.S. government and (B) there can be no assurance that the fund will be able to maintain a stable net asset value of $1.00 per share; and

* * * * *

10. Amending Form N–1A [17 CFR 239.15A and 274.11A], Part B, by revising paragraph (a) of Item 22 to read as follows:

* * * * *

**Part B—Information Required in a Statement of Additional Information**

* * * * *

*Item 22. Calculation of Performance Data*

(a) *Money Market Funds.* If the Registrant holds itself out as a "money market" fund and meets the conditions of paragraphs (c)(2), (c)(3) and (c)(4) of rule 2a–17 [17 CFR 270.2a–7], and if it advertises a yield quotation or an effective yield quotation, furnish:

* * * * *

**§ 274.11b Form N–3, registration statement of separate accounts organized as management investment companies.**

Note: Form N–3 is not codified in the Code of Federal Regulations.

11. Amending Form N–3 [17 CFR 274.11b], Part A, Item 1, paragraph (a), by redesignating paragraph (a)(ix) as paragraph (a)(x) and adding new paragraph (a)(ix) to read as follows:

* * * * *

**Part A—Information Required in a Prospectus**

*Item 1. Cover Page*

(a) * * *

(ix) In the case of a Registrant holding itself out as a money market fund, a prominent statement that (A) the securities of the fund are neither insured nor guaranteed by the U.S. government and (B) there can be no assurance that the fund will be able to maintain a stable net asset value of $1.00 per share; and

* * * * *

12. Amending Form N–3 (17 CFR 274.11b), Part B, by revising paragraph (a) of Item 25 to read as follows:

* * * * *

**Part B—Information Required in a Statement of Additional Information**

* * * * *

*Item 25. Calculation of Performance Data*

(a) *Money Market Accounts.* For each account or sub-account that holds itself out as a "money market" account or sub-account and meets the conditions of paragraphs (c)(2), (c)(3) and (c)(4) of rule 2a–7 (17 CFR 270.2a–7), and that advertises a yield quotation or an effective yield quotation, furnish:

* * * * *

**§ 274.11c Form N–4, registration statement of separate accounts organized as unit investment trusts.**

Note: Form N–4 is not codified in the Code of Federal Regulations.

13. Amending Form N–4 (17 CFR 274.11b), Part B, by revising paragraph (a) of Item 21 to read as follows:

* * * * *

**Part B—Information Required in a Statement of Additional Information**

* * * * *

*Item 21. Calculation of Performance Data*

(a) *Money Market Funded Sub-Accounts.* For each sub-account that is funded by a "money market" fund that meets the conditions of paragraphs (c)(2), (c)(3) and (c)(4) of rule 2a–7 (17 CFR 270.2a–7), and for which the Registrant advertises a yield quotation or an effective yield quotation, furnish:

* * * * *

By the Commission.

Dated: July 17, 1990.

**Margaret H. McFarland,**

*Deputy Secretary.*

**Appendix: Conversion Table**

Note: The conversion table is not codified in the Code of Federal Regulations.

| *Proposed rule is found in* | *Current Rule* |
|---|---|
| (a) | (c) |
| (a)(1) | (c)(1) |
| (a)(2) | (c)(5) |
| (a)(3) | (c)(8) |
| (a)(4) new | * * * |
| (a)(5) new | * * * |
| (a)(6) | (c)(9) |
| (a)(7) | (c)(2) |
| (a)(8) | (c)(3) |
| (a)(9) new | * * * |
| (a)(10) new | * * * |
| (a)(11) | (c)(4) |
| (a)(12) new | * * * |
| (a)(13) new | * * * |
| (a)(14) | (c)(6) |
| (a)(15) new | * * * |
| (a)(16) | (c)(7) |
| (b) new | * * * |
| (c) | (a) |
| (c)(1) | (a)(1) |
| (c)(2) | (a)(2)(iii), (a)(3)(ii) |
| (c)(2)(i) | (a)(2)(iii)(A), (a)(3)(ii)(A) |
| (c)(2)(ii) | (a)(2)(iii)(B), (a)(3)(ii)(B) |
| (c)(3) | (a)(2)(iv), (a)(3)(iii) |
| (c)(4) new | * * * |
| (c)(5)(i) new | * * * |
| (c)(5)(ii) new | * * * |
| (c)(5)(iii) new | * * * |
| (c)(6) | (a)(2) |
| (c)(6)(i) | (a)(2)(i) |
| (c)(6)(ii) | (a)(2)(ii) |
| (c)(6)(ii)(A) | (a)(2)(ii)(A) |
| (c)(6)(ii)(B) | (a)(2)(ii)(B) |
| (c)(6)(ii)(C) | (a)(2)(ii)(C) |
| (c)(7) | (a)(3) |
| (c)(8) | (a)(2)(vi), (a)(2)(vii) |
| (d) | (b) |
| (d)(1) | (b)(1) |
| (d)(2) | (b)(2) |
| (d)(3) | (b)(3) |
| (d)(4) | (b)(4) |
| (d)(5) | (b)(5) |
| (d)(6) | (b)(6) |

[FR Doc. 90–17128 Filed 7–24–90; 8:45 am]

BILING CODE 8010–10–M

## DEPARTMENT OF COMMERCE

## Patent and Trademark Office

## 37 CFR Part 1

**[Docket No. 900664–0164]**

## Time Period for Objection to Publication

**AGENCY:** Patent and Trademark Office, Commerce.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Patent and Trademark Office (PTO) proposes changing the period within which applicants or parties may object to publication of a decision of the Board of Patent Appeals and Interferences (Board), or any decision of the Commissioner on petition, not otherwise open to public inspection, from two months to "a time specified by the Commissioner." The proposed change would permit setting shorter periods for objection to publication of decisions and is intended to expedite publication of decisions involving issues of important precedential value.

**DATES:** Comments must be submitted on or before August 24, 1990. No hearing will be held.

**ADDRESSES:** Address written comments to Box 8, Commissioner of Patents and Trademarks, Washington, DC 20231, marked to the attention of Lee E. Barrett.

**FOR FURTHER INFORMATION CONTACT:** Lee E. Barrett by telephone at (703) 557–4035 or by mail marked to his attention and addressed to Box 8, Commissioner of Patents and Trademarks, Washington, DC 20231.

**SUPPLEMENTARY INFORMATION:** As presently written 37 CFR 1.14(d) allows an applicant or party to an interference two months to object to the publication of decisions of the Board or the Commissioner. The two-month period delays publications of decisions involving significant issues of law, rule interpretation or PTO practice which the

Commissioner has determined to be of important and immediate interest to patent practitioners. The PTO proposes changing § 1.14(d) from "two months" to "a time specified by the Commissioner" to permit the Commissioner to set shorter periods to object to publication. If the proposed rule is adopted, the reasonable period will normally be one month.

**Other Considerations**

The proposed rule change will not have a significant impact on the quality of the human environment or the conservation of energy resources.

The proposed rule change is in conformity with the requirements of the Regulatory Flexibility Act (Pub. L. 96–354), Executive Orders 12291 and 12612, and the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*

The General Counsel of the Department of Commerce has certified to the Small Business Administration that the proposed rule change will not have a significant adverse economic impact on a substantial number of small entities (Regulatory Flexibility Act, Pub, L. 96–354) because no increase in fees or paperwork should result from this rule change.

The Patent and Trademark Office had determined that this rule change is not a major rule under Executive Order 12291. The annual effect on the economy will be less than $100 million. There will be no major increase in costs or prices for consumers, individual industries, Federal, state or local government agencies, or geographic regions. There will be significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The PTO has also determined that this notice has no federalism implications affecting the relationship between the national Government and the states as outlined in Executive Order 12612.

The rule change will not impose a burden under the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, since no record keeping or reporting requirements within the coverage of the Act are placed upon the public.

**List of Subjects in 37 CFR Part 1**

Administrative practice and procedure, Freedom of information, Inventions and patents, Reporting and record keeping requirements.

For the reasons set out in the preamble and pursuant to the authority granted to the Commissioner of Patents and Trademarks by 35 U.S.C. 6, the Patent and Trademark Office proposed to amend title 37, chapter I, subchapter A of the Code of Federal Regulations as set forth below. The proposed addition is printed between arrows (► ◄) and the deletions are shown between brackets ([ ]).

## PART 1—RULES OF PRACTICE IN PATENT CASES

1. The authority citation for 37 CFR part 1 would continue to read as follows:

Authority: 35 U.S.C. 6 unless otherwise noted.

2. Section 1.14 is proposed to be amended by revising paragraph (d) to read as follows:

**§ 1.14 Patent applications preserved in secrecy.**

* * * * *

(d) Any decision of the Board of Patents Appeals and Interferences, or any decision of the Commissioner on petition, not otherwise open to public inspection shall be published or made available for public inspection if:

(1) The Commissioner believes the decision involves an interpretation of patent laws or regulations that would be of important precedent value; and

(2) the applicant, or any party involved in the interference, does not within ► a time specified by the Commissioner ◄ [two months] after being notified of the intention to make the decision public[,] object in writing on the ground that the decision discloses a trade secret or other confidential information.

If a decision discloses such information, the applicant or party shall identify the deletions in the text of the decision considered necessary to protect the information. If it is considered the entire decision must be withheld from the public to protect such information, the applicant or party must explain why. Applicants or parties will be given time, not less than twenty days, to request reconsideration and seek court review before any portions of decisions are made public over their objection. See § 2.27 for trademark applications.

* * * * *

Douglas B. Comer,

*Acting Assistant Secretary and Commissioner of Patents and Trademarks.*

[FR Doc. 90–17258 Filed 7–24–90; 8:45 am]

BILLING CODE 3510–16–M

## DEPARTMENT OF TRANSPORTATION

### Federal Highway Administration

### 49 CFR Part 396

**[FHWA Docket No. MC–89–3]**

**RIN 2125–AC25**

### Inspection, Repair and Maintenance; Brake Inspection

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The FHWA is requesting comments on proposed revisions to the Federal Motor Carrier Safety Regulations (FMCSRs) concerning the development and implementation of Federal Standards or methods to ensure that brakes and brake systems of commercial motor vehicles are properly maintained and inspected. This action is required by the "Truck and Bus Safety and Regulatory Reform Act of 1988." This rulemaking proposes Federal minimum standards for persons who will be responsible for repairing, adjusting and servicing brakes on commercial motor vehicles.

**DATES:** Comments must be received on or before September 24, 1990.

**ADDRESSES:** Submit written, signed comments to FHWA Docket No. MC–89–3, room 4232, HCC–10, Office of the Chief Counsel, Federal Highway Administration, 400 Seventh Street, SW., Washington, DC 20590. Commenters may, in addition to submitting "hard copies" of their comments, submit a floppy disk (either 1.2Mb or 360Kb density) in a format that is compatible with either word processing programs, Word Perfect or WordStar. All comments received will be available for examination at the above address from 8:30 a.m. to 3:30 p.m. e.t., Monday through Friday, except legal holidays. Those desiring notification of receipt of comments must include a self-addressed, stamped postcard.

**FOR FURTHER INFORMATION CONTACT:** Mr. Robert M. Hagan, Office of Motor Carrier Standards, (202) 366–2981, or Mr. Charles Medalen, Office of the Chief Counsel (202) 366–1354, Federal Highway Administration, Department of Transportation, 400 Seventh Street SW., Washington, DC 20590. Office hours are from 7:45 a.m. to 4:15 p.m., e.t., Monday through Friday.

**SUPPLEMENTARY INFORMATION:**

**Background**

On November 18, 1988, the President signed the Truck and Bus Safety and

Regulatory Reform Act of 1988 (Title IX, subtitle B, of the Anti-Drug Abuse Act of 1988, Pub. L. 100–690, 102 Stat. 4181, 4531) (the Act). Section 9110 of the Act requires the Secretary, not later than December 31, 1990, to "issue regulations for the purpose of adopting improved standards or methods to ensure that the brakes and brake systems of commercial motor vehicles are properly maintained and inspected by appropriate employees. At a minimum, such regulations shall establish minimum training requirements and qualifications for employees responsible for maintaining and inspecting such brakes and brake systems."

**Discussion of Regulatory Proposal**

On February 3, 1989, the FHWA published an advance notice of proposed rulemaking (ANPRM) (54 FR 5518) concerning the development and implementation of Federal standards or methods to ensure that the brakes and brake systems of commercial motor vehicles are properly maintained and inspected by appropriate employees.

The FHWA requested comments on a number of factual and policy issues. Although the Agency is charged with promulgating regulations to ensure the safe operation of commercial motor vehicles operating on our nation's highways, it makes every effort to avoid imposing unnecessary burdens on the motor carrier industry. The FHWA asked for comments on the meaning of the statutory phrase "employees responsible" for maintaining and inspecting brake systems. It could be interpreted to mean the mechanic who performs the work, the chief mechanic, the shop supervisor, or possibly other employees. The interpretation adopted will have a major impact on the number of employees covered by any regulation and on the type of training they would receive.

The FHWA encouraged commenters to submit proposed regulatory language and enforcement activities. The agency asked for comments on any documentation and/or other paperwork requirements needed that would be issued under section 9110 of the Act.

Although not specifically offered for comment, the agency also announced its conclusion that section 9110 applies only to motor carriers and persons who are employees of motor carriers. Section 9110 amends the Motor Carrier Safety Act of 1984 (MCSA) (49 U.S.C. app. 2501–2520) by adding at the end thereof a new section entitled "Maintenance and Inspection of Brake Systems." That action makes the definition of "employee" contained in section 204 of the MCSA applicable to the term "employee" as used in section 9110 of the Act. Section 204 defines an employee as "(A) an operator of a commercial motor vehicle (including an independent contractor while in the course of operating a commercial motor vehicle); (B) a mechanic; (C) a freight handler; and (D) any individual other than an employer, who is employed by an employer and who in the course of his or her employment directly affects commercial motor vehicle safety, but such term does not include an employee, of the United States, any State, or any political subdivision of a State who is acting within the course of such employment." "Employer" is also defined in section 204 of the MCSA as "any person engaged in a business affecting interstate commerce who owns or leases a commercial motor vehicle in connection with that business, or assigns employees to operate it, but such term does not include the United States, any State, or any political subdivision of a State." The FHWA, therefore, believes that persons who are not employees of motor carriers but who may inspect or maintain commercial motor vehicle brakes, such as, independent garage owners or truck stops and their mechanics, are not covered by section 9110 or any subsequent regulations implementing that section.

The FHWA also believes that this section does not apply to governmental inspectors at any level of government because the defintiion of "employee" and "employer" in section 204 of the MCSA specifically excludes government employees.

**Comments Submitted to the Docket**

Sixteen responses to the ANPRM were submitted to the docket. The respondents represented motor carriers (3, with 2 comments from one carrier), labor unions (2), industry associations (5), manufacturers/vendors (4, with 2 comments from one vendor), and State and local officials (2, which were duplicates). Of the comments received, 13 were favorable to the concept (disregarding the duplicate comments) of establishing minimum standards for the qualification of persons responsible for maintaining, servicing, repairing or adjusting brakes of commercial motor vehicles. Of these, three expressed some reservation over the increased burden on the motor carrier industry. Two commenters indicated that the FHWA should expand its definition of "employee" to include everyone who inspected or repaired brakes, whether they were "employed" by a motor carrier or a third party, such as, an independent shop. Both of these commenters did not agree with FHWA's stated intention to limit the scope of the standards to motor carrier employees only. Nor did either of the commenters agree with FHWA's expressed conclusion that persons who are not employees of motor carriers but who may inspect or maintain brakes or brake systems of commercial motor vehicles are not covered by the section 9110 and any subsequent regulations. These commenters both expressed their opinion that Congress did not intend the FHWA to circumscribe the expected safety benefits of section 9110 by excluding brake mechanics and inspectors simply because they are not employed by a motor carrier.

Both of these commenters stated their opinion that the proposed regulatory requirements should extend to all personnel who perform inspections or repairs on brakes or brake systems.

One commenter was totally opposed to any additional regulations, on the grounds that there is enough regulation of motor carriers and no more is needed. Further, this commenter takes the position that drivers are capable of performing minor repairs on brakes, if they wish. If a driver doesn't know or want to know how to repair or adjust brakes, then nobody should require him to repair or adjust brakes.

One commenter, while generally in favor of establishing minimum standards for the qualification of persons responsible for maintaining, servicing, repairing or adjusting brakes; was not in favor or expanding the term "employee." This commenter pointed out that, if the FHWA expands the concept of "employee," then the FHWA will be attempting to bring under this term independent contractors and individuals involved in interstate commerce who own or lease commercial motor vehicles or assign employees to operate them, while under lease to other motor carriers.

Several commenters stated that there was no need to establish a formal certification program, with respect to the maintenance, repair and inspection of brakes. Their opinions ranged from outright refusal to consider certificaiton, to pointing out that section 9110 of the Act does not require certification of these persons but only requires that "responsible" people be "qualified" and that Congress did not mean to create a certification program when it merely required that a responsible person be qualified.

**Proposed Regulations**

In the ANPRM the FHWA encouraged commenters to submit proposed

regulatory language and enforcement activities. Only the American Trucking Associations (ATA), the International Association of Machinists and Aerospace Workers (IAMAW) and the State of Connecticut were responsive to this request. The following proposed regulations are based upon the regulatory language suggested by the ATA, the IAMAW and the State of Connecticut. The FHWA would appreciate comments on not only the proposed regulatory language but on all of the issues present in this rulemaking.

*Section 396.25 Qualifications of Brake Mechanics and Inpsectors*

Section 396.25(a) requires that the motor carrier be responsible for ensuring that all inspections, maintenance, repairs or service to the brakes of its commercial motor vehicles are properly performed.

Section 396.25(b) proposes to make the motor carrier responsible for ensuring that its employees who are responsible for inspecting, repairing, maintaining, or adjusting the brakes on its commercial motor vehicles, are sufficiently trained to understand and undertake the brake tasks assigned. Consistent with the FHWA's interpretation of Section 9110, the qualifications requirements would not apply to persons who are not employed by the motor carrier. Comments are solicited concerning this approach.

Several commenters to the ANPRM pointed out that the person actually performing the various functions need not be the "responsible" person who ensures that the task is properly performed. The "responsible" person could be the supervisor, shop foreman, or other person whose assigned task is to ensure that the quality of the task performed will meet the necessary standards.

The FHWA agrees that the person actually performing the various functions need not be the "responsible" person ensuring that the task was properly performed. However, the FHWA believes that it is the motor carrier's responsibility to ensure that the task is either performed by a qualified person, or that a qualified person is responsible for ensuring the proper performance of the task. Comments are solicited on this requirement, as well as on the type of documentation to be maintained by the motor carrier as proof of an employee's qualifications, competence or suitability to be a "responsible" person.

The FHWA believes that there are similarities between the qualifications for a person performing the annual inspection and those of the brake mechanic or inspector. There is one major difference between the two sets of qualifications. Under § 396.19 those persons who perform the periodic inspections must meet the qualifications. On the other hand, it is not necessary for the person performing the brake repair, adjustments, inspections or service to meet the qualifications under § 396.25, if the person who is responsible for the work, *e.g.*, shop foreman or supervisor, meets the minimum qualifications under § 396.25.

Section 396.25(b)(3) establishes specific training or experience qualifications for employees who are to be "responsible" for the various brake service or inspection tasks. These requirements can be met by the employee completing a State, Provincial or Federal approved apprenticeship or training program, or through being certified by a State or Canadian Province that he can perform the assigned brake task. Another way that a person may qualify is to have training or experience, or a combination thereof, that totals one year. This training or experience can be obtained in a number of ways: By on-the-job training at a motor carrier's facility; a training program sponsored by a brake systems manufacturer; completing an apprentice program sponsored by a labor union; experience gained from performing brake related tasks; or any combination of these methods of obtaining the necessary expertise. Comments are solicited concerning the specific qualifications for these employees, particularly the one year required training or experience.

Section 396.25(c) requires that the motor carrier retain evidence of the "responsible" person's qualifications. This requirement implies that proof or evidence will be available for inspection upon demand by any authorized Federal, State or local official. The FHWA requests comments on this requirement, as well as on what should be considered proper proof of an employees qualifications, competence or suitability to be a "responsible" person.

**Regulatory Impact**

The FHWA has determined that this document does not contain a major rule under Executive Order 12291 or a significant action under the Department of Transportation's regulatory policies and procedures. Although this proposal has some regulatory impact, we believe that safety benefits would outweigh the additional costs upon the industry for implementation. Accordingly, a full regulatory evaluation is not required.

For this reason and under the criteria of the Regulatory Flexibility Act (Pub. L. 96–354), the FHWA hereby certifies that this proposal, if promulgated, will not have a significant economic impact on a substantial number of small entities.

A regulatory information number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross reference this action with the Unified Agenda.

In accordance with the Paperwork Reduction Act of 1980 (Pub. L. 96–511), the reporting or recordkeeping provisions that are included in this regulation are being submitted for approval to the Office of Management and Budget (OMB).

**Federalism Impact**

This action has been analyzed in accordance with the principals and criteria contained in Executive Order 12612, and it has been determined that the proposed rulemaking does not have sufficient Federalism implications to warrant the preparation of a Federalism assessment.

This proposed regulation would amend part 396 of the FMCSRs pertaining to vehicle inspection, repair, and maintenance, as required by the Truck and Bus Safety and Regulatory Reform Act of 1988. Nothing in this document directly preempts any State law or regulation.

**List of Subjects in 49 CFR Part 396**

Highway safety, Motor carriers, Motor vehicle safety, and Reporting and recordkeeping requirements.

(Catalog of Federal Domestic Assistance Program Number 20.217, Motor Carrier Safety)

Issued on: July 17, 1990.

**T.D. Larson,**

*Administrator.*

## PART 396—INSPECTION, REPAIR, AND MAINTENANCE

1. The authority citation for 49 CFR part 396 continues to read as follows:

**Authority:** Section 210 of Pub. L. 98–554, October 30, 1984, 98 Stat. 2839 (49 U.S.C. App. 2509); 49 U.S.C. 3102; 48 CFR 1.48.

2. Part 396 is amended by adding § 396.25 to read as follows:

**§ 396.25 Qualifications of brake mechanics and inspectors.**

(a) The motor carrier shall ensure that all inspections, maintenance, repairs or

service to the brakes of its commerical motor vehicles, are performed in compliance with the requirements of this part.

(b) The motor carrier shall ensure that each employee who is responsible for servicing or inspecting brakes is qualified as follows:

(1) Understands the brake service or inspection task to be accomplished and can perform that task;

(2) Is knowledgeable of and has mastered the methods, procedures, tools and equipment used when performing an assigned brake service or inspection task; and

(3) Is capable of performing the assigned brake service or inspection by reason of experience, training or both as follows:

(i) Has successfully completed an apprenticeship program sponsored by a State, a Province, a Federal agency or a labor union, or a training program approved by a State, Provincial or Federal agency, or has a certificate from a State or Canadian Province which qualifies the person to perform the assigned brake service or inspection task (including passage of Commercial Driver's License air brake tests in the case of a brake inspection and adjustment); or

(ii) Has brake-related training or experience or a combination thereof totaling at least one year. Such training or experience may consist of:

(A) Participation in a training program sponsored by a brake or vehicle manufacturer or similar commercial training program designed to train students in brake maintenance or inspection similar to the assigned brake service or inspection tasks;

(B) Experience performance brake maintenance or inspection similar to the assigned brake service or inspection task in a motor carrier maintenance program; or

(C) Experience performing brake maintenance or inspection similar to the assigned brake service or inspection task at a commercial garage, fleet leasing company, or similar facility.

(c) Evidence of the qualifications required under this section for each person responsible for the service or inspection of brakes shall be maintained by the motor carrier at its principal place of business as long as the person is performing brake service or inspection for the motor carrier, and for one year thereafter. However, motor carriers do not have to maintain evidence of qualifications to inspect air brake systems for such inspections performed by persons who have passed the air brake knowledge and skills test for a Commercial Driver's License.

[FR Doc. 90–17295 Filed 7–24–90; 8:45 am]
BILLING CODE 4910–22–M

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

### 50 CFR Part 662

**[Docket No. 900791–0191]**

### Northern Anchovy Fishery

**AGENCY:** National Marine Fisheries Service (NMFS), NOAA, Commerce.

**ACTION:** Notice of preliminary determination; request for comments.

**SUMMARY:** NOAA announces the estimated spawning biomass and preliminary determination of harvest quotas for the northern anchovy fishery in the exclusive economic zone (EEZ) for the 1990–91 fishing season. The harvest quotas have been determined by application of the formulas in the Northern Anchovy Fishery Management Plan (FMP) and its implementing regulations. Those regulations require this announcement to be made on or about July 1 of each year for public comment. NOAA's final determination of the harvest quotas will be announced on or about August 1, 1990.

**DATES:** Comments must be received on or before July 31, 1990.

**ADDRESSES:** Comments should be addressed to E.C. Fullerton, Director, Southwest Region, NMFS, 300 South Ferry Street, Terminal Island, California 90731.

**FOR FURTHER INFORMATION CONTACT:** James J. Morgan, Fisheries Management and Analysis Branch, Southwest Region, NMFS, 213–514–6667.

**SUPPLEMENTARY INFORMATION:** In consulation with the California Department of Fish and Game and the NMFS Southwest Fisheries Center, the Director of the Southwest Region has made a preliminary determination that the spawning biomass of the central subpopulation of northern anchovy, *Engraulis mordax*, is estimated to be 466,000 metric tons (mt). The biomass estimate is derived from the Egg Production Method of measurement, but is based on the Stock Synthesis Model.

The Regional Director has made the following preliminary determinations for the 1990–91 fishing season by applying the formulas in the FMP and in § 662.20 of the implementing rules.

1. The total U.S. harvest quota or optimum yield (OY) of northern anchovy is 121,100 mt plus an unspecified amount for use as live bait.

2. The total U.S. harvest quota for reduction purposes is 116,200 mt.

a. Of the total reduction harvest quota, 9,072 mt is reserved for the reduction fishery in subarea A (north of Pt. Buchon).

b. The reduction quota for subarea B (south of Pt. Buchon) is 107,128 mt.

3. The U.S. harvest allocation for non-reduction fishing (i.e., fishing for anchovy for use as dead bait and direct human consumption) is 4,900 mt. Non-reduction fishing is not limited until the total catch in both the reduction and non-reduction fisheries reaches the total harvest quota of 121,100 mt.

4. There is no U.S. harvest limit for the live bait fishery.

5. The domestic annual processing capacity (DAP) is 2,454 mt. The FMP states that this amount is the maximum level of reduction plus non-reduction processing during the previous three years.

6. The amount allocated to joint venture processing (JVP) is zero, because there is no history of, nor are there applications for, joint ventures.

7. Domestic annual harvest capacity (DAH) is 2,454 mt. DAH is the sum of DAP and JVP.

8. The total allowable level of foreign fishing (TALFF) is 46,070 mt. The TALFF in the U.S. exclusive economic zone is based on the U.S. portion of the OY minus the DAH, minus that amount of the expected harvest in the Mexican fishery zone that is in excess of the amount allocated to Mexico by the fishery management plan.

A summary of the information on which this preliminary determination is based has been provided to the Pacific Fishery Management Council. Consulations with the Council will continue through July. In addition, the Regional Director will consider until July 31 any evidence received from domestic land-based processors that the preliminary DAP should be modified. A final determination of the harvest quotas will be announced on or about August 1, 1990.

**Classification**

This action is authorized by 50 CFR part 662 and complies with Executive Order 12291.

**List of Subjects in 50 CFR Part 662**

Fisheries.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: July 19, 1990.

**William W. Fox, Jr.,**

*Assitant Administrator for Fisheries, National Marine Fisheries Service.*

[FR Doc. 90–17300 Filed 7–20–90; 8:45 am]

BILLING CODE 3510–22–M

# Notices

Federal Register
Vol. 55, No. 143
Wednesday, July 25, 1990

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

## DEPARTMENT OF AGRICULTURE

### Animal and Plant Health Inspection Service

[Docket No. 90-145]

### Scrapie Negotiated Rulemaking Advisory Committee; Meeting

**AGENCY:** Animal and Plant Health Inspection Service, USDA.

**ACTION:** Notice of meeting.

**SUMMARY:** The purpose of this notice is to announce the third meeting in a series of sessions of the Scrapie Negotiated Rulemaking Advisory Committee.

**PLACE, DATES, AND TIME OF MEETING:** The meeting will be held at the offices of The Conservation Foundation, 1250 24th Street NW., Washington, DC 20037, August 9, 1990, from 8 a.m. to 5 p.m., and August 10 and 11, 1990, from 9 a.m. to 5 p.m.

**FOR FURTHER INFORMATION CONTACT:** David Galbreath, Planning and Risk Analysis Systems, PPD, APHIS, USDA, Room 806, Federal Building, 6505 Belcrest Road, Hyattsille, MD 20782, 301-436-8017.

**SUPPLEMENTARY INFORMATION:** In a **Federal Register** notice published on February 26, 1990 (55 FR 6662-6663, Docket No. 89-139), we announced our intent to estblish a Scrapie Negotiated Rulemaking Advisory Committee (Committee), chartered under the Federal Advisory Committee Act (5 U.S.C. app., Pub. L. No. 92-463). The Committee will develop alternatives to the current regulatory program designed to control scrapie in sheep and goats. The first meeting of the Committee was held on May 8 and 9, 1990, and the second meeting of the Committee was held on July 9 and 10, 1990. This notice announces the third meeting in a series of sessions of the Committee.

The purpose of the meeting is to bring together members of the Animal and Plant Health Inspection Service, representatives of the sheep industry, and representatives of other parties with a definable stake in scrapie issues to frame a recommended rulemaking proposal as an alternative to the current regulatory program for the control of scrapie.

The tentative agenda for the third meeting of the Committee is as follows:

**First Day**

*Morning session*—8 a.m.
Workshop on Federal-State Cooperation on Scrapie Activities.
*Afternoon session*—1 p.m.
Workshop on Costs and Economic Impacts of Scrapie Activities.

**Second Day**

*Morning session*—9 a.m.
Committee Administrative Issues.
Consideration of Workshop Reports.
*Afternoon session*—1:30 p.m.
Consideration of Workshop Reports.
Public Comments.

**Third Day**

*Morning session*—9 a.m.
Revision of Scrapie Certification Plan.
*Afternoon session*—1:30 p.m.
Revision of Scrapie Certification Plan.
Discussion of Future Committee Meeting Agendas.
Public Comments.

The meetings will be open to the public. Public participation at the meetings will be allowed during periods announced at the meeting for this purpose. Anyone who wants to file a written statement with the Committee may do so before, at the time of the meeting, or after the meeting by sending the statement on or before August 24, 1990, to Helene Wright, Chief, Regulatory Analysis and Development, PPD, APHIS, USDA, Room 866, Federal Building, 6505 Belcrest Road, Hyattsville, MD 20782. Please state that your comments refer to the Scrapie Negotiated Rulemaking Advisory Committee.

This notice of meeting is given in compliance with the Federal Advisory Committee Act (5 U.S.C. app., Pub. L. No. 92-463).

Done in Washington, DC, this 20th day of July, 1990.

**Robert Melland,**

*Acting Administrator, Animal and Plant Health Inspection Service.*

[FR Doc. 90-17378 Filed 7-24-90; 8:45 am]

BILLING CODE 3410-34-M

### Federal Grain Inspection Service

### Federal Grain Inspection Service Advisory Committee Meeting

Pursuant to the provisions of section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. No. 92-463), notice is hereby given of the following committee meeting:

*Name:* Federal Grain Inspection Service Advisory Committee.

*Date:* August 9, 1990.

*Place:* Best Western Starlite Village Motel, Box 1767, Junction I-35 and 13th Street, Ames, Iowa 50010.

*Time:* 8:30 a.m.

*Purpose:* To provide advice to the Administrator of the Federal Grain Inspection Service with respect to the implementation of the U.S. Grain Standards Act.

The agenda includes (1) financial matters; (2) grain quality activities; (3) mycotoxin issues; (4) policy on inspection equipment approval; (5) sample validation program summary; (6) results of management planning meeting; and (7) other matters.

The meeting will be open to the public. Public participation will be limited to written statements unless otherwise requested by the Committee Chairman. Persons, other than members, who wish to address the Committee or submit written statements before or after the meeting should contact John C. Foltz Administrator, FGIS, U.S. Department of Agriculture, P.O. Box 96454, Washington, DC 20090-6454, telephone (202) 382-0219.

Dated: July 19, 1990.

**John C. Flotz,**

*Administrator.*

[FR Doc. 90-17290 Filed 7-24-90; 8:45 am]

BILLING CODE 3410-EN-M

## DEPARTMENT OF COMMERCE

### Bureau of Export Administration

### Electronic Instrumentation Technical Advisory Committee; Closed Meeting

A meeting of the Electronic Instrumentation Technical Advisory Committee will be held August 17, 1990, 9 a.m., in the Herbert C. Hoover Building, Room 1617F, 14th Street & Pennsylvania Avenue, NW., Washington, DC. The Committee

advises the Office of Technology and Policy Analysis with respect to technical questions that affect the level of export controls applicable to electronics and related equipment and technology. The Committee will meet only in Executive Session to discuss matters properly classified under Executive Order 12356, dealing with the U.S. and COCOM control program and strategic criteria related thereto.

The Assistant Secretary for Administration, with the concurrence of the General Counsel, formally determined on January 5, 1990, pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, that the series of meetings of the Committee and of any Subcommittees thereof, dealing with the classified materials listed in 5 U.S.C., 552b(c)(1) shall be exempt from the provisions relating to public meetings found in section 10(a)(1) and (a)(3), of the Federal Advisory Committee Act. The remaining series of meetings or portions thereof will be open to the public.

A copy of the Notice of Determination to close meetings or portions of meetings of the Committee is available for public inspection and copying in the Central Reference and Records Inspection Facility, Room 6628, U.S. Department of Commerce, Washington, DC 20230. For further information, contact Lee Ann Carpenter on (202) 377–2583.

Dated: July 19, 1990.

**Betty Anne Ferrell,**

*Director, Technical Advisory Unit.*

[FR Doc. 90–17284 Filed 7–24–90; 8:45 am]

BILLING CODE 3510–DT–M

## Telecommunications Equipment Technical Advisory Committee; Partially Closed Meeting

A meeting of the Telecommunications Equipment Technical Advisory Committee will be held August 15, 1990, 9:30 a.m., in the Herbert C. Hoover Building, Room 1617F, 14th & Pennsylvania Avenue, NW., Washington, DC. The Committee advises the Office of Technology and Policy Analysis with respect to technical questions that affect the level of export controls applicable to telecommunications and related equipment and technology.

Agenda

**General Session**

1. Opening remarks by the Chairman.
2. Presentation of papers or comments by the public.
3. Review of revised telecommunication controls.
4. Preliminary discussion of telecommunication controls for the Core List.
5. New business.
6. Future meeting dates.

**Executive Session**

7. Discussion of matters properly classified under Executive Order 12356, dealing with the U.S. and COCOM control program and strategic criteria related thereto.

The General Session of the meeting will be open to the public and a limited number of seats will be available. To the extent that time permits, members of the public may present oral statements to the Committee. Written statements may be submitted at any time before or after the meeting. However, to facilitate distribution of public presentation materials to the Committee members, the Committee suggests that presenters forward the public presentation materials two weeks prior to the meeting date to the following address:

Lee Ann Carpenter, Technical Support Staff, OTPA/BXA, Room 1600, U.S. Department of Commerce, 14th & Pennsylvania Ave., NW., Washington, DC 20230.

The Assistant Secretary for Administration, with the concurrence of the General Counsel, formally determined on January 5, 1990, pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, that the series of meetings of the Committee and of any Subcommittees thereof, dealing with the classified materials listed in 5 U.S.C., 552b(c)(1) shall be exempt from the provisions relating to public meetings found in section 10 (a)(1) and (a)(3), of the Federal Advisory Committee Act. The remaining series of meetings or portions thereof will be open to the public.

A copy of the Notice of Determination to close meetings or portions of meetings of the Committee is available for public inspection and copying in the Central Reference and Records Inspection Facility, Room 6628, U.S. Department of Commerce, Washington, DC 20230. For further information or copies of the minutes, contact Lee Ann Carpenter on (202) 377–2583.

Dated July 10, 1990.

**Betty Anne Ferrell,**

*Director, Technical Advisory Committee Unit.*

[FR Doc. 90–17287 Filed 7–24–90; 8:45 am]

BILLING CODE 3510–DT–M

## Foreign-Trade Zones Board

**[Docket No. 21–89]**

## Foreign-Trade Zone 141, Monroe County, NY; Withdrawal of Request for Subzone Status for Hickey-Freeman Apparel Plant

Notice is hereby given of the withdrawal of the application submitted by the County of Monroe, New York, grantee of FTZ 141, requesting authority for subzone status for Hickey-Freeman Company, Inc. The application was filed on October 25, 1989 (54 FR 46431, 11/3/89).

The withdrawal is requested by the applicant because of changed circumstances.

The case has been withdrawn without prejudice, and FTZ Board Docket No. 21–89 is closed.

Dated: July 19, 1990.

**Dennis Puccinelli,**

*Acting Executive Secretary.*

FR Doc. 90–17285 Filed 7–24–90; 8:45 am]

BILLING CODE 3510–DS–M

## International Trade Administration

**[A–588–802]**

## 3.5" Microdisks and Media Thereof From Japan; Termination in Part of Antidumping Duty Administrative Review

**AGENCY:** International Trade Administration/Import Administration, Department of Commerce.

**ACTION:** Notice of termination in part of antidumping duty administrative review.

**SUMMARY:** On June 1, 1990, the Department of Commerce initiated an administrative review of the antidumping duty order on 3.5" micordisks and media thereof from Japan. The Department has now determined to terminate in part this review.

**EFFECTIVE DATE:** July 24, 1990.

**FOR FURTHER INFORMATION CONTACT:** Kathleen Kelleher or John R. Kugelman, Office of Antidumping Compliance, International Trade Administration, U.S. Department of Commerce, Washington, DC 20230; telephone: (202) 377–2923/3601.

**SUPPLEMENTARY INFORMATION:**

**Background**

On June 1, 1990, the Department of Commerce published a notice of initiation of administrative review of the antidumping duty order on 3.5" micordisks and media thereof from

Japan. This notice stated that we would review entries from nine exporters during the period September 28, 1988 through March 31, 1990.

On June 14, 1990, Sanken USA subsequently withdrew its request for review of entries by Tokyo Material Company and TDK. Accordingly, the Department of Commerce has determined to terminate in part the administrative review for Tokyo Material Company. We will proceed with the administrative review of entries by TDK during the period, since TDK requested its own review.

This notice is in accordance with section 751(a)(1) of the Tariff Act of 1930 (19 U.S.C. 1675(a)) and § 353.22(a)(5) of the Commerce Department's regulations (19 CFR 353.22(a)(5)).

Dated: July 17, 1990.

**Joseph A. Spetrini,**

*Deputy Assistant Secretary for Compliance.*

[FR Doc. 90-17286 Filed 7-24-90; 8:45 am]

BILLING CODE 3510-DS-M

## Minority Business Development Agency

### Business Development Center Applications: Gary, Hammond, East Chicago, Indiana (Service Area)

**AGENCY:** Minority Business Development Agency, Commerce.

**ACTION:** Notice.

**SUMMARY:** The Minority Business Development Agency (MBDA) announces that it is soliciting competitive applications under its Minority Business Development Center (MBDC) Program to operate an MBDC for approximately a 3 year period, subject to the availability of funds. The cost of performance for the first 12 months is estimated at $173,400 in Federal funds and a minimum of $30,600 in non-federal contributions for the budget period January 1, 1991 to December 31, 1991. Cost-sharing contributions may be in the form of cash contributions, client fees for services, in-kind contributions, or combinations thereof. The MBDC will operate in the Gary, Indiana geographic service area. The award number of this MBDC will be 05-10-91001-01.

The funding instrument for the MBDC will be a cooperative agreement. Competition is open to individuals, non-profit and for-profit organizations, state and local governments, American Indian tribes and educational institutions.

The MBDC program is designed to provide business development services to the minority business community for the establishment and operation of viable minority businesses. To this end, MBDA funds organizations that can coordinate and broker public and private resources on behalf of minority individuals and firms; offer a full range of management and technical assistance; and serve as a conduit of information and assistance regarding minority business.

Applications will be evaluated on the following criteria: The experience and capabilities of the firm and its staff in addressing the needs of the business community in general and, specifically, the special needs of minority businesses, individuals and organizations (50 points); the resources available to the firm in providing business development services (10 points); the firm's approach (techniques and methodology) to performing the work requirements included in the application (20 points); and the firm's estimated cost for providing such assistance (20 points). An application must receive at least 70% of the points assigned to any one evaluation criteria category to be considered programmatically acceptable and responsive.

MBDCs shall be required to contribute at least 15% of the total project cost through non-federal contributions. Client fees for billable management and technical assistance (M&TA) rendered must be charged by MBDCs. Based on a standard rate of $50 per hour, MBDCs will charge client fees at 20% of the total cost for firms with gross sales of $500,000 or less and 35% of the total cost for firms with gross sales of over $500,000.

The MBDC may continue to operate, after the initial competitive year, for up to 2 additional budget periods. Periodic reviews culminating in year-to-date quantitive and qualitative evaluations will be conducted to determine if funding for the project should continue. Continued funding will be at the discretion of MBDA based on such factors as an MBDC's satisfactory performance, the availability of funds and Agency priorities.

**CLOSING DATE:** The closing date for applications is August 27, 1990. Applications must be postmarked on or before August 27, 1990.

**ADDRESSES:** Chicago Regional Office, Minority Business Development Agency, 55 East Monroe Street, Suite 1440, Chicago, Illinois 60603, 312/353-0182.

**FOR FURTHER INFORMATION CONTACT:** David Vega, Regional Director, Chicago Regional Office.

**SUPPLEMENTARY INFORMATION:** Anticipated processing time of this award is 120 days. Executive Order 12372 "Intergovernmental Review of Federal Programs" is not applicable to this program. Questions concerning the preceding information, copies of application kits and applicable regulations can be obtained at the above address.

(11.800 Minority Business Development, Catalog of Federal Domestic Assistance)

Dated: July 17, 1990.

**David Vega,**

*Regional Director, Chicago Regional Office.*

[FR Doc. 90-17334 Filed 7-24-90; 8:45 am]

BILLING CODE 3510-21-M

## National Oceanic and Atmospheric Administration

### Coastal Zone Management: Federal Consistency Appeal by Marvin Mann from an Objection by the State of North Carolina

**AGENCY:** National Oceanic and Atmospheric Administration, Commerce.

**ACTION:** Dismissal of appeal.

On May 21, 1990, Marvin Mann (Appellant) filed with the Secretary of Commerce (Secretary) a notice of appeal pursuant to section 307(c)(3)(A) of the Coastal Zone Management Act of 1972 (CZMA), as amended, 16 U.S.C. 1451 *et seq.* and the Department of Commerce's implementing regulations, 15 CFR part 930, subpart H. The appeal is taken from an objection by the State of South Carolina (State) to appellant's consistency certification for a U.S. Army Corps of Engineers (Corps) permit to fill it wetlands on a small lot in Surfside Beach, South Carolina.

Since the filing of this appeal, the State and appellant have reached an agreement on changes to appellant's proposal that would make the activity consistent with South Carolina'a Coastal Zone Management Program. Accordingly, the appellant has requested that the appeal be withdrawn. The State concurs with that request.

Upon notification by the parties that this matter has been resolved, the appeal has been dismissed. Marvin Mann is barred from filing another appeal from South Carolina's objection to his original consistency certification.

**FOR FURTHER INFORMATION CONTACT:** Margo E. Jackson, Acting Assistant General Counsel for Ocean Services, National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, 1825 Connecticut Avenue, NW., Suite 603, Washington, DC 20235, (202) 673–5200.

(Federal Domestic Assistance Catalog No. 11.419 Coastal Zone Management Program Assistance)

Dated: July 17, 1990.

**Thomas A. Campbell,**

*General Counsel.*

[FR Doc. 90–17294 Filed 7–24–90; 8:45 am]

BILLING CODE 3510-08-M

## Marine Mammals; Application for Permit; Dr. Daniel Costa and Dr. Graham A.J. Worthy (P227I)

Notice is hereby given that the Applicant has applied in due form for a Permit to take marine mammals as authorized by the Marine Mammal Protection Act of 1972 (16 U.S.C. 1361–1407), and the Regulations Governing the Taking and Importing of Marine Mammals (50 CFR part 216).

1. *Applicant:*

Dr. Daniel P. Costa, Institute of Marine Science, University of California, Santa Cruz, California 95064.

Dr. Graham A.J. Worthy, Dept. of Marine Biology, Texas A&M University, P.O. Box 1675, Galveston, TX 77553–1675.

2. *Type of Permit:* Scientific research under the Marine Mammal Protection Act.

3. *Name and Number of Marine Mammals:* 360 (240 adults & 120 juveniles) California sea lions (*Zalophus californianus*).

4. *Type of Take:* The applicant proposes to take by tagging and marking up to 60 adult sea lions and 30 juveniles for each of four years. Adults and juveniles will be marked with hair dye, captured with a hoop net, restrained, initial blood sample taken, tagged with an electronic time depth recorder and radio transmitter, flipper tagged, maintained in a cage for up to four hours, additional blood samples taken, weighed, measured, released, recaptured, and milk (adult females) and blood samples taken. For each animal under restraint after initial capture, total body water pool will be determined using oxygen-18 doubly-labeled water, tritium dilution, and bioelectrical impedance analysis methods; and blubber depth will be determined using an ultrasound device. The objectives are to attempt to understand the energetic requirements of a species which is constrained to off-shore marine foraging while raising offspring on land; and an attempt to understand the dynamics of normal environmental variability and the breeding success of California sea lions.

5. *Location and Duration of Activity:* Animals will be taken on the coastal islands and haulout sites along mainland California. Locations include but are not limited to San Miguel, San Nicolas, Santa Barbara, San Clemente, and Año Nuevo Islands and the Monterey breakwater. Activities will be conducted throughout the year with special emphasis in March/April and November.

Concurrent with the publication of this notice in the **Federal Register**, the Secretary of Commerce is forwarding copies of this application to the Marine Mammal Commission and the Committee of Scientific Advisors.

Written data or views, or requests for a public hearing on this application should be submitted to the Assistant Administrator for Fisheries, National Marine Fisheries Service, U.S. Department of Commerce, 1335 East West Highway, Room 7324, Silver Spring, Maryland 20910, within 30 days of the publication of this notice. Those individuals requesting a hearing should set forth the specific reasons why a hearing on this particular application would be appropriate. The holding of such hearing is at the discretion of the Assistant Administrator for Fisheries. All statements and opinions contained in this notice are summaries of information included in the permit application and do not necessarily reflect the views of the National Marine Fisheries Service.

Documents submitted in connection with the above application are available for review by interested persons in the following offices:

By appointment: Permit Division, Office of Protected Resources, National Marine Fisheries Service, 1335 East West Hwy., Suite 7324, Silver Spring, Maryland 20910 (tel: 301/427–2289); and

Director, Southwest Region, National Marine Fisheries Service, 300 South Ferry Street, Terminal Island, California 09731–7415.

Dated: July 17, 1990.

**Nancy Foster,**

*Director, Office of Protected Resources, National Marine Fisheries Service.*

[FR Doc. 90–17293 Filed 7–24–90; 8:45 am]

BILLING CODE 3510-22-M

## DEPARTMENT OF DEFENSE

### Department of the Air Force

### Acceptance of Group Application Under Public Law 95–202 and DODD 1000.20; "Civilian Employees of the U.S. Army and U.S. Navy Who Participated in the Defense of Bataan and Corregidor During the Period December 7, 1941 through May 6, 1942"

Under the provisions of section 401, Public Law 95–202 and DOD Directive 1000.20, the Department of Defense Civilian/Military Service Review Board has accepted an application on behalf of the group known as: "Civilian Employees of the U.S. Army and U.S. Navy who Participated in the Defense of Bataan and Corregidor during the Period December 7, 1941 through May 6, 1942." Persons with information or documentation pertinent to the determination of whether the service of this group is to be considered equivalent to active military service to the Army Forces of the United States are encouraged to submit such information or documentation within 60 days to the DOD Civilian/Military Service Review Board, Secretary of the Air Force (AFPC), Washington, DC 20330–1000. Copies of documents or other materials submitted cannot be returned. For further information, contact Lt. Col. Harris, (202) 692–4747.

**Patsy J. Conner,**

*Air Force Federal Register Liaison Officer.*

[FR Doc. 90–17272 Filed 7–24–90; 8:45 am]

BILLING CODE 3910-01-M

### Department of the Navy

### Board of Advisors to the Superintendent, Naval Postgraduate School; Meeting

Pursuant to the provisions of the Federal Advisory Committee Act (5 U.S.C. app.), notice is hereby given that the Board of Advisors to the Superintendent, Naval Postgraduate School, Monterey, California, will meet on 9–10 August 1990, in Herrmann Hall (Bldg 220) at the School. All sessions will be open to the public.

The purpose of the meeting is to elicit the advice of the board on the Navy's Postgraduate Education Program. The board examines the effectiveness with which the Naval Postgraduate School is accomplishing its mission. To this end, the board will inquire into the curricula; instruction; physical equipment; administration; state of morale of the student body, faculty, and staff; fiscal affairs; and any other matters relating to

the operation of the Naval Pos School as the board considers pertinent.

For further information concerning this meeting, contact: Captain Gary K. Iversen, USN (Code 007), Naval Postgraduate School, Monterey, California, 93943–5000, Telephone: (408) 646–2513.

Dated: July 23, 1990.

Jane M. Virga,

*Lieutenant, JAGC, USN Federal Register Liaison Officer.*

[FR Doc. 90–17467 Filed 7–24–90; 8:45 am]

BILLING CODE 3810–AE–M

## DEPARTMENT OF DEFENSE

## GENERAL SERVICES ADMINISTRATION

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

### Federal Acquisition Regulation (FAR); Information Collection Under OMB Review

**AGENCIES:** Department of Defense (DOD), General Services Administration (GSA), and National Aeronautics and Space Administration (NASA).

**ACTION:** Notice.

**SUMMARY:** Under the provisions of the Paperwork Reduction Act of 1980 (44 U.S.C. chapter 35), the Federal Acquisition Regulation (FAR) Secretariat has submitted to the Office of Management and Budget (OMB) a request to review and approve an extension of a currently approved information collection concerning Progress Payments and SF 1443.

**ADDRESSES:** Send comments to Ms. Eyvette Flynn, FAR Desk Officer, OMB, Room 3235, NEOB, Washington, DC 20503.

**FOR FURTHER INFORMATION CONTACT:** Mr. Jeremy Olson, Office of Federal Acquisition Policy, (202) 501–3221 or Mr. Owen Green, Defense Acquisition Regulatory Council, (703) 697–7268.

**SUPPLEMENTARY INFORMATION:**

a. Purpose

Certain Federal contracts provide for progress payments to be made to the contractor during performance of the contract. The requirement for certification and supporting information are necessary for the administration of statutory and regulatory limitation on the amount of progress payments under a contract. The submission of supporting cost schedules is an optional procedure that, when the contractor elects to have a group of individual orders treated as a single contract for progress payments purposes, is necessary for the administration of statutory and regulatory requirements concerning progress payments.

b. Annual Reporting Burden

The annual reporting burden is estimated as follows: Respondents, *27,000*; responses per respondent, *32*; total annual responses, *864,000*; hours per response, *.55*; and total response burden hours, *475,200*.

**OBTAINING COPIES OF PROPOSALS:** Requester may obtain copies from General Services Administration, FAR Secretariat (VRS), Room 4041, Washington, DC 20405, telephone (202) 501–4755. Please cite OMB Control No. 9000–0010, Progress Payments, SF 1443.

Dated: July 13, 1990.

Margaret A. Willis,

*FAR Secretariat.*

[FR Doc. 90–17271 Filed 7–24–90; 8:45 am]

BILLING CODE 6820–34–M

## DEPARTMENT OF EDUCATION

**[CFDA No. 84.183C]**

### Drug Prevention Programs in Higher Education; Special Focus; Program Competition; Approaches to Accountability in Prevention Program, FY 1991

*Purpose of Program:* To provide grants to institutions of higher education (IHEs) to develop, implement, operate, and improve drug abuse education and prevention programs for students enrolled in IHEs.

*Deadline for Transmittal of Application:* October 25, 1990.

*Deadline for Intergovernmental Review:* December 24, 1990.

*Applications Available:* July 25, 1990.

*Available Funds:* $90,000.

*Estimated Range of Awards:* Up to $15,000.

*Estimated Number of Awards:* 6.

Note: The Department is not bound by any estimates in this notice.

*Project Period:* 9 months.

*Applicable Regulations:* (a) The Education Department General Administrative Regulations (EDGAR) in 34 CFR parts 74, 75, 77, 79, 80, 81, 82, and 85; and (b) The regulations for this program in 34 CFR part 612.

Priorities:

*Absolute Priority:*

Under 34 CFR 75.105(c)(3) and 34 CFR 612.21(c)(2)(i) the Secretary gives an absolute preference to applications meeting the following priority:

Applications proposing the formulation of promising new approaches to individual and institutional leadership and responsibility related to drug abuse education and prevention for students enrolled in IHEs.

Under 34 CFR 75.105(c)(3) the Secretary funds under this competition only applications that meet this absolute priority.

*Invitational Priority*

Within the absolute priority in this notice the Secretary is particularly interested in applications that meet the following invitational priority:

Applications proposing to produce papers that would develop and articulate new theories, theoretical models, and conceptual approaches on a variety of topics and issues in a number of fields and areas of knowledge related to individual and institutional leadership and responsibility in drug abuse education and prevention.

Areas of knowledge that applicants may wish to consider in developing their formulations include, but are not limited to, the following: higher education, psychology (including motivation, character, and responsibility), social psychology (including social deviance), ethics and moral education, health, sociology of organizations, management science, and leadership.

However, under 34 CFR 75.105(c)(1) an application that meets this invitational priority does not receive competitive or absolute preference over other applications.

Note: This invitational priority is not meant to include grants for research, the development of instructional or training materials, program evaluation, restatements of existing theory, or literature reviews that are not conducted as one part of a theoretical formulation.

Selection Criteria

In evaluating applications for grants under Approaches to Accountability in Prevention competitions, the Secretary uses the specific selection criteria in 34 CFR 612.23(c)(2)(i).

The program regulations in 34 CFR 612.22(b) provide that the Secretary may award up to 100 points for the selection criteria, including a reserved 15 points. For this competition the Secretary distributes the 15 points as follows:

*Design*

(34 CFR 612.23(c)(2)(i)(B)). Five points are added to this criterion for a possible total of 35 points.

*Methods and management plan*

(34 CFR 612.23(c)(2)(i)(C)). Five points are added to this criterion for a possible total of 20 points.

*Key personnel*

(34 CFR 612.23(c)(2)(i)(D)). Five points are added to this criterion for a possible total of 25 points.

*For Applications or Information Contact:* Donald R. Fischer, FY 1991–C Competition, FIPSE, U.S. Department of Education, 400 Maryland Avenue, SW., Washington, 20202–5175. Telephone: (202) 708–5771.

**Authority:** 20 U.S.C. 3211.

Dated: July 17, 1990.

**Leonard L. Haynes, III,**

*Assistant Secretary for Postsecondary Education.*

[FR Doc. 90–17301 Filed 7–24–90; 8:45 am]

BILLING CODE 4000–01–M

## Office of Postsecondary Education Plus and Supplemental Loans for Students Programs

**AGENCY:** Department of Education.

**ACTION:** Notice of SLS and PLUS interest rate for the period July 1, 1990, through June 30, 1991.

The Assistant Secretary for Postsecondary Education announces the interest rate for variable rate Supplemental Loans for Students (SLS) and PLUS loans to be 11.49 percent for the period July 1, 1990, through June 30, 1991. The interest rate for these loans is provided under section 427A of the Higher Education Act of 1965 (the Act), as amended (20 U.S.C. 1077a(c)).

Section 427A(c) of the Act provides that a variable interest rate applies to SLS and PLUS loans disbursed on or after July 1, 1987, existing SLS and PLUS loans made at a variable interest rate (currently 12 percent), and SLS and PLUS loans made prior to July 1, 1987 that are refinanced at a variable rate. The variable rate applies for each 12-month period beginning July 1 and ending June 30. The rate is equal to the bond equivalent rate of the 52-week Treasury bills auctioned at the final auction held before the June 1 preceding that 12-month period plus 3.25 percent.

Pursuant to section 427A(c) of the Act, as amended, the Assistant Secretary has determined the interest rate for variable rate PLUS and SLS loans for the period July 1, 1990 through June 30, 1991 in the following manner:

*Step 1.* By determining the bond equivalent rate of the 52-week Treasury bills auctioned at the final auction prior to June 1, 1990 (8.24 percent); and

*Step 2.* By adding 3.25 percent to that average.

**FOR FURTHER INFORMATION CONTACT:** Ralph B. Madden, Senior Program Specialist, Guaranteed Student Loan Branch, Division of Policy and Program Development, Department of Education on (202) 708–8242.

(20 U.S.C. 1077a(c))

(Catalog of Federal Domestic Assistance No. 94.032, Guaranteed Student Loan Program and PLUS Program)

Dated: July 17, 1990.

**Leonard L. Haynes III,**

*Assistant Secretary for Postsecondary Education.*

[FR Doc. 90–17299 Filed 7–24–90; 8:45 am]

BILLING CODE 4000–01–M

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

**[Docket No. RP89–251–006]**

## Alabama-Tennessee Natural Gas Co.; Notice of Proposed Changes in FERC Gas Tariff

July 18, 1990.

Take notice that Alabama-Tennessee Natural Gas Company ("Alabama-Tennessee"), on July 12, 1990, tendered for filing revisions to its FERC Gas Tariff, First Revised Volume No. 1. These revisions relate to the immediate implementation of the rate benefits of a settlement of all pending issues agreed upon in the captioned proceedings and will provide rate reductions to all jurisdictional services on an interim basis, pending the Commission's review of the forthcoming comprehensive offer of settlement.

As part of this filing, Alabama-Tennessee has also tendered certain changes to its SG Rate Schedule which will permit Alabama-Tennessee to charge each Rate Schedule SG customer who transports on Alabama-Tennessee's system a substitution charge equal to the unit demand charge included in the SG sales commodity rate (computed at a 45 percent load factor which is the same basis used to develop the applicable SG rate), multiplied by the quantity transported, up to Alabama-Tennessee's maximum daily obligation to deliver natural gas to each customer under Rate Schedule SG.

Alabama-Tennessee states that its filing is conditioned upon authorization by the Commission that Alabama-Tennessee be permitted to assess a surcharge to each customer as may be necessary to recover any difference between the rates charged and collected pursuant to the interim settlement and the rates ultimately approved in this proceeding, together with interest computed in accordance with 18 CFR 154.67 (1989), and unless otherwise agreed to by the parties, that this surcharge apply to each customer's future volumes equal to the volumes delivered to that customer during the period in which the interim rates are effective. In the event the Commission issues a final order approving rates in this proceeding lower than those under the interim settlement, within thirty days of such order, Alabama-Tennessee agrees to refund any difference between the rates actually charged and collected pursuant to the interim settlement and the rates ultimately approved in this proceeding, with interest in accordance with 18 CFR 154.67.

Alabama-Tennessee proposes an effective date of June 1, 1990 for these revised tariff sheets and represents that all its jurisdictional customers support these changes in their entirety.

Alabama-Tennessee states that copies of the filing were served upon the company's jurisdictional customers and interested public bodies, and all persons on the Commission's official service list in the captioned docket.

Any person desiring to be heard or to protest said filing should file a motion to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with §§ 385.214 and 385.211 of the Commission's Rules and Regulations. All such motions or protests should be filed on or before July 26, 1990. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Persons that are already parties to this proceeding need not file a motion to intervene in this matter. Copies of this filing are on file with the Commission and are available for public inspection.

**Lois D. Cashell,**

*Secretary.*

[FR Doc. 90–17280 Filed 7–24–90; 8:45 am]

BILLING CODE 6717–01–M

**[Docket No. RP89–50–000 (Remand)]**

## Florida Gas Transmission Co.; Informal Settlement Conference

July 18, 1990.

Take notice that an informal settlement conference will be convened in this proceeding on August 2, 1990, at 9 a.m. at the offices of the Federal Energy

Regulatory Commission, 810 First Street, NE., Washington, DC.

Any party, as defined by 18 CFR 385.102(c), or any participant as defined by 18 CFR 385.102(b), is invited to attend. Persons wishing to become a party must move to intervene and receive intervenor status pursuant to the Commission's regulations (18 CFR 385.214).

For additional information, contact Donald A Heydt, (202) 208–0248, or John J. Keating, (202) 208–0762.

**Lois D. Cashell,**

*Secretary.*

[FR Doc. 90–17283 Filed 7–24–90; 8:45 am]

BILLING CODE 6717–01–M

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**[Docket No. RP90–145–000]**

## Northern Border Pipeline Co.; Proposed Change in FERC Gas Tariff

July 18, 1990.

Take notice that on July 16, 1990, Northern Border Pipeline Company (Northern Border) tendered for filing to become part of Northern Border Pipeline Company's FERC Gas Tariff, Original Volume No. 1, the following revised tariff sheet:

Ninth Revised Sheet Number 157

The purpose of the tariff filing is to reduce the Maximum Rate from 7.317 cents to 5.023 cents per 100 Dekatherm-Miles for the time period July 1, 1990 through September 30, 1990 in accordance with Section 3.11 of Rate Schedule IT–1 and concurrent with the reduction to the Base Billing amounts for Rate Schedule T–1 Shippers for the same time period. From October 1, 1990 to December 31, 1990, the Maximum Rate will be 7.317 cents per 100 Dekatherm-Miles as approved by the Commission in its letter order dated June 21, 1990 at Docket No. RP90–117–000.

Northern Border has requested that this revised tariff sheet be effective July 1, 1990. Northern Border states that copies of this filing have been sent to all of Northern Border's contracted shippers.

Any person desiring to be heard or to protest said filing should file a petition to intervene or a protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, DC 20426, in accordance with the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). All such petitions or protests should be filed on or before July 25, 1990. Protests will be considered but do not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene.

Copies of this filing are on file with the Commission and are available for public inspection.

**Lois D. Cashell,**

*Secretary.*

[FR Doc. 90–17281 Filed 7–24–90; 8:45 am]

BILLING CODE 6717–01–M

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**[Docket No. RP90–124–001]**

## Northern Natural Gas Co., Division of Enron Corp.; Proposed Changes in FERC Gas Tariff

July 18, 1990

Take notice that Northern Natural Gas Company, Division of Enron Corp., (Northern) on July 13, 1990, tendered for filing certain revisions to its FERC Gas Tariff in compliance with the Commission's Order dated June 29, 1990 in this proceeding. Northern states that although it will be filing a request for rehearing of the June 29, 1990, Order and without waiver of, or prejudice to, the pursuit of its legal rights pursuant thereto, Northern intends to offer the FDD service immediately and thus is refiling all tariff sheets to comply with the Commission's Order except those involving the revised rates required by Ordering Paragraph (C) of the June 29th Order.

Any person desiring to be heard or protest said filing should file a motion to intervene or protest with the Commission, 825 North Capitol Street, NE., Washington, DC 20426 by July 26, 1990, in accordance with rules 211 and 214 of the Commission's Rules and Practice and Procedure (18 CFR 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Persons that are already parties to this proceeding need not file a motion to intervene in this matter. Copies of this filing are on file with the Commission and are available for public inspection.

**Lois D. Cashell,**

*Secretary.*

[FR Doc. 90–17282 Filed 7–24–90; 8:45 am]

BILLING CODE 6717–01–M

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## Office of Conservation and Renewable Energy

## Energy Conservation Program for Consumer Products; Extension of Interim Waiver to Lennox Industries (F–018)

**AGENCY:** Conservation and Renewable Energy Office, Department of Energy.

**SUMMARY:** Today's notice publishes a letter granting a 180–day extension of the November 30, 1989 Interim Waiver to Lennox Industries for its G20 and G20R series atmospheric furnaces.

Issued in Washington, DC, July 12, 1990.

**J. Michael Davis, P.E.,**

*Assistant Secretary, Conservation and Renewable Energy.*

Mr. Hal H. Rhea,

*Vice President, Research and Development, Lennox Industries, Inc., P.O. Box 877, Carrollton, TX 75006*

May 25, 1990.

RE: *Lennox Interim Waiver*

Dear Mr. Rhea: On November 30, 1989, the Department of Energy (Department) granted Lennox Industries, Inc.,'s (Lennox) Application for Interim Waiver regarding (a) blower time delay and (b) the determination of the off-cycle draft factor (Df) for Lennox's G20 and G20R series atmospheric furnaces (54 FR 50525, December 7, 1989). Simultaneously with filing the Application, Lennox filed a Petition for Waiver requesting relief from the Department's test procedures relating to the blower time delay specification and in the determination of Df.

The Department subsequently received 15 comments during the comment period respecting the Petition for Waiver. Comments supported granting the Petition. Others objected to it or recommended an alternative form of relief to that granted in the Interim Waiver. Based on these comments, the Department concluded that the Lennox model G20 and G20R series atmospheric furnaces should be subjected to certain tests before the Department would be in a position to issue a final Decision and Order in this matter. Accordingly, the Department directed the National Institute of Standards and Technology (NIST) to test the Lennox furnaces under a variety of test procedures, including that proposed by Lennox.

Based on its review of the test results, NIST's recommendation, and the comments received on Lennox's Petition for Waiver, the Department will determine the relief warranted. Such review cannot be completed by May 30, 1990, which is the 180 day time period allowed by paragraph 430.27(h) of 10 CFR part 430 for an interim waiver to be in effect. Therefore, the Department is extending the Interim Waiver for an additional 180 days as provided for in ¶430.27(h).

Sincerely,

J. Michael Davis,

*Assistant Secretary, Conservation and Renewable Energy.*

[FR Doc. 90–17387 Filed 7–24–90; 8:45 am]

BILLING CODE 6450–01–M

## Office of Fossil Energy

[FE Docket No. 89-86-NG]

## Falcon Seaboard Gas Co.; Conditional Authorization to Import Natural Gas From Canada

**AGENCY:** Office of Fossil Energy, Department of Energy.

**ACTION:** Notice of conditional order authorizing importation of Natural Gas from Canada.

**SUMMARY:** The Office of Fossil Energy (FE) of the Department of Energy (DOE) gives notice that it has issued a conditional order authorizing Falcon Seaboard Gas Company (FSGC) to import up to 16 MMcf per day or up to 5.84 Bcf annually of Canadian natural gas for firm deliveries over a 15-year period. The Canadian gas would be used to fuel a 79-megawatt cogeneration facility to be located near North East, Pennsylvania. The authorization is conditioned upon completion by DOE of an environmental evaluation of the proposed import under the National Environmental Policy Act of 1969, including the impact on the quality of the human environment of constructing a new loop of Tennessee Gas Pipeline Company's existing Niagara Spur Line to transport the gas from the U.S./Canadian border near Lewiston, New York, to the facilities of National Fuel Gas Supply Corporation near East Aurora, New York.

A copy of this order is available for inspection and copying in the Natural Gas Division Docket room, 3F-056, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585. (202) 586-9478. The docket room is open between the hours of 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

Issued in Washington, DC, July 20, 1990.

**Clifford P. Tomaszewski,**

*Acting Deputy Assistant Secretary for Fuels Programs, Office of Fossil Energy.*

[FR Doc. 90-17385 Filed 7-24-90; 8:45 am]

BILLING CODE 6450-01-M

[FE Docket No. 90-34-NG]

## Fulton Cogeneration Associates; Application To Import and Export Natural Gas From and to Canada

**AGENCY:** Office of Fossil Energy, Department of Energy.

**ACTION:** Notice of application for long-term authority to import and export natural gas from and to Canada.

**SUMMARY:** The Office of Fossil Energy (FE) of the Department of Energy (DOE) gives notice of receipt on April 27, 1990, of an application filed by Fulton Cogeneration Associates (FCA), for authorization to import up to 55 Bcf of natural gas from Canada for a term of 15 years, beginning on the date of first delivery. FCA proposes to import up to 6,000 MMBtu of gas per day from Star Oil & Gas Ltd. (Star) and up to 6,500 MMBtu of gas per day from OMV (Canada) Ltd. (OMV). The gas would be used to fuel a 47.4 megawatt (MW) cogeneration facility to be located in the City of Fulton, New York. Due to the possible need for temporary alternate transportation routes, FCA requests authorization to import gas into the United States, export the gas to Canada and re-import the gas for delivery to the cogeneration facility. The imported gas would be consumed in its entirety in the United States.

The application is filed under section 3 of the Natural Gas Act and DOE Delegation Order Nos. 0204-111 and 0204-127. Protests, motions to intervene, notices of intervention, requests for additional procedures and written comments are invited.

**DATES:** Protests, motions to intervene, or notices of intervention, as applicable, requests for additional procedures and written comments are to be filled at the address listed below no later than 4:30 p.m., e.d.t., August 24, 1990.

**ADDRESSES:** Office of Fuels, Programs, Fossil Energy, U.S. Department of Energy, Forrestal Building, room 3F-056, FE-50, 1000 Independence Avenue, SW., Washington, DC 20585.

**FOR FURTHER INFORMATION CONTACT:**

John S. Boyd, Office of Fuels Programs, Fossil Energy, U.S. Department of Energy, Forrestal Building, room 3F-094, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586-4523.

Diane J. Stubbs, Natural Gas and Mineral Leasing, Office of General Counsel, U.S. Department of Energy, Forrestal Building, room 6E-042, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586-6667.

**SUPPLEMENTARY INFORMATION:** FCA is a New York Limited Partnership with its principal place of business in Fairfax, Virginia. FCA is comprised of ANR Venture Fulton Company and Coastal Power Production Company, both of which are subsidiaries of The Coastal Corporation of Houston, Texas. The applicant intends to own, operate, and maintain a cogeneration facility to be primarily fueled by natural gas to produce electricity for sale to the Niagara Mohawk Power Corporation (NIMO). Steam generated by the facility will be piped to a food plant of the Nestles Food Corporation.

Natural gas purchased from OMV in Alberta, Canada would be transported on the pipeline system of NOVA, an Alberta corporation, to the interconnection between it and TransCanada Pipelines Limited (TCPL) near Empress, Alberta. Gas purchased from Star in Saskatchewan, Canada, would be transported on the pipeline system of TransGas Limited to the interconnection between it and TCPL near Success, Saskatchewan. Gas would be transported from these receipt points over the proposed pipeline facilities encompassed in TCPL's facilities expansion application (TCPL Expansion), which currently is pending before the National Energy Board of Canada in Docket No. GH-5-89.

After the anticipated in-service date of November 1, 1991, TCPL would transport the gas from Blackhorse, Ontario, to the proposed pipeline system of the Empire State Pipeline Company Inc. (ESPC), at Grand Island, New York. ESPC's proposed system, Empire State Pipeline (ESP) would extend from the receipt point on the international border between the United States and Canada to various points in western New York. ESP would be located wholly within the State of New York. The gas would be shipped to a point near Sycracuse, New York, where it would be transported by NIMO to the proposed cogeneration facility. An application for certificate of environmental compatibility and public need, along with supplementary documentation, authorizing construction and operation of the pipeline has been filed with the New York Public Service Commission (NYPSC). The initial rate contemplated by ESP and FCA for the transport of the gas equates to $0.25/Mcf on a 100 percent load factor basis. The initial rate charged may be changed by ESP within the maximum rate approved by the NYPSC. If a rate change adversely affected FCA it could terminate its obligations to ESP.

Prior to the in-service date of the proposed TCPL Expansion, gas for the cogeneration facility may be transported over one or more of the following routes: FCA is currently negotiating for interim transportation on TCPL's system with existing shippers who expect to have excess capacity from the above TCPL receipt points to Dawn, Ontario, or to points downstream of Chippawa, Ontario. The gas would then be shipped on ESP to NIMO to the cogeneration facility. The gas could also be sent by ANR Pipeline Company (ANR) to CNG Transmission Corporation (CNG) to NIMO to the facility.

Alternatively, the gas could also be transported from the TCPL receipt

points to Emerson, Manitoba. From there the gas could be transported in the following ways: (1) By Viking Gas Transmission to ANR at Marshfield, Wisconsin, to ANR (Lebanon, Ohio) to CNG to NIMO to FCA; (2) by Great Lakes Gas Transmission to ANR at Crystal Falls, Michigan, to ANR (Lebanon, Ohio) to CNG to NIMO to FCA; (3) by ANR to Great Lakes Gas Transmission (Great Lakes) at Farwell, Michigan, to ANR (Lebanon, Ohio), to CNG to NIMO to FCA; (4) by Great Lakes to TCPL at St. Clair, Michigan, to Chippawa, Ontario, to ESP to FCA; or (5) by TCPL to ESP at Chippawa, Ontario, to NIMO to FCA.

The natural gas sales agreement between Star and FCA calls for FCA to import a daily contract quantity (DCQ) of up to 6,000 MMBtu of Canadian natural gas for a period of 15 years beginning on the date of first delivery. From years one through eleven of the contract, price will be determined as follows: The base price is $1.90 (U.S.) per MMBtu; for each year of the contract beginning on November 1, 1991, the price will be increased by three percent per year. If, at the beginning of any contract year, the sales price per kilowatt hour for electricity sold by FCA to NIMO equals or exceeds $0.07 (U.S.), the price paid to Star by FCA for the current year will be the price paid in the previous year, increased by whichever of the following factors is greater: Three percent or 80 percent of the change in the final U.S. implicit price deflator for GNP for the twelve months ending September 30th of the previous contract year published by the U.S. Department of Commerce.

FCA is obligated to purchase a minimum annual quantity (MAQ) of gas from Star. The MAQ is equal to 80 percent of the sum of the DCQ volumes in effect on each day of the contract year. If FCA purchases less than the MAQ it must pay Star an amount equal to the deficiency quantity (DQ) times the weighted average price in effect during the particular contract year. FCA can recover such payment in the next three years by taking gas in excess MAQ for each year without payment, until such amount is recovered. By the end of the third year, if FAC has not recovered the full amount paid for failing to take the MAQ, Star will refund without interest the remainder of FAC payment.

At least six months before the beginning of the twelfth year of the contract, FCA and Star will begin negotiations to establish a price for the remainder of the sales agreement. If a price or method for its determination cannot be reached, subject to certain conditions, the agreement will terminate at the end of the eleventh year of the contract.

The natural gas sales agreement between FAC and OMV provides for the purchases of up to 6,500 MMBtu of Canadian natural gas per day for a period of twelve years beginning on November 1, 1990. For purposes of this agreement this date defines the start of the first contract year, which runs to January 1, 1991. The second through eleventh contract years run from January 1st to January 1st in each successive year. The twelfth contract year runs from January 1, to November 1, 2001.

According to the application, the initial base price is $1.751 (U.S.) per MMBtu, as of November 1, 1990. The contract provides for minimum annual price escalations. The escalations are calculated by multiplying the base price by a fraction, the numerator of which is the weighted average sales price per kilowatt of electricity received by FCA during a given contract year and the denominator of which is $0.06 (U.S.) per killowatt, if the latter figure is greater than the base price. Additionally, if a figure calculated to be eighty percent of the average market price for gas published by the Province of Alberta is greater than the base price, FCA is obligated to pay the higher price.

During the first two contract years FCA is obligated to purchase a MAQ equal to fifty-five percent of the DCQ less certain exclusions. After the first two contract years the MAQ rises to eighty percent of the DCQ. if FCA purchases less than the initial MAQ it must pay OMV an amount equal to the DQ times the price in effect during the year in question. FCA can recover such payment in the next three years by taking gas in excess of the MAQ. If FCA does not recover deficiency payments made during any contract year by the end of the following third year contract year, OMV retains any amount remaining.

Two years or less before the end of the sales agreement, FCA and OMV agree to start negotiations regarding the possible extension of the contract. If the parties are unable to reach an agreement one year before the end of the contract, neither party is required to continue discussions.

FCA maintains that OMV and Star have adequate gas reserves to support their respective natural gas sales agreements, stating that OMV has established raw gas reserves of 33.7 Bcf and Star has proven gas reserves of 35.09 Bcf. FCA also notes that Canada historically has been a reliable and secure source of natural gas.

The decision on the application for import authority will be made consistent with the DOE's gas import policy guidelines, under which the competitiveness of an import arrangement in the markets served is the primary consideration in determining whether it is in the public interest (49 FR 6684, February 22, 1984). Other matters to be considered in making a public interest determination in a long-term import proposal such as this include the need for the gas and security of the long-term supply. Parties that may oppose this application should comment in their responses on the issues of competitiveness, need for the gas, and security of supply as set forth in the policy guidelines. The applicant asserts that this import arrangement is in the public interest because both contracts are market-responsive and will remain competitive over their full terms, and that their gas sources will be secure. Parties opposing the import arrangement bear the burden of overcoming these assertions.

All parties should be aware that if this long-term import application is granted, the authorization may permit the import of natural gas at any point on the international border where existing pipeline facilities are located. Additionally, all parties should be aware that if the requested import is approved, the authorization would be conditioned on the filing of quarterly reports indicating volumes imported and the purchase price.

### NEPA Compliance

The National Environmental Policy Act (NEPA) (42 U.S.C. 4321 *et sec.*) requires the DOE to give appropriate consideration to the environmental effects of its proposed actions. No final decision will be issued in this proceeding until the DOE has met its NEPA responsibilities.

### Public Comment Procedures

In response to this notice, any person may file a protest, motion to intervene or notice of intervention, as applicable, and written comments. Any person wishing to become a party to the proceeding and to have the written comments considered as the basis for any decision on the application must, however, file a motion to intervene or notice of intervention, as applicable. The filing of a protest with respect to this application will not serve to make the protestant a party to the proceeding,

although protests and comments received from persons who are not parties will be considered in determining the appropriate action to be taken on the application. All protests, motions to intervene, notices of intervention, and written comments must meet the requirements that are specified by the regulations in 10 CFR part 590.

It is intended that a decisional record will be developed on the application through responses to this notice by parties, including the parties' written comments and replies thereto. Additional procedures will be used as necessary to achieve a complete understanding of the facts and issues. A party seeking intervention may request that additional procedures be provided, such as additional written comments, an oral presentation, a conference, or trial-type hearing. Any request to file additional written comments should explain why they are necessary. Any request for an oral presentation should identify the substantial question of fact, law, or policy at issue, show that it is material and relevant to a decision in the proceeding, and demonstrate why an oral presentation is needed. Any request for a conference should demonstrate why the conference would materially advance the proceeding. Any request for a trial-type hearing must show that there are factual issues genuinely in dispute that are relevant and material to a decision and that a trial-type hearing is necessary for a full and true disclosure of the facts.

If an additional procedure is scheduled, a notice will be provided to all parties. If no party requests additional procedures, a final opinion and order may be issued based on the official record, including the application and responses filed by parties pursuant to this notice, in accordance with 10 CFR 590.316.

A copy of FCA's application is available for inspection and copying in the Office of Fuels Programs Docket room, 3F–056, at the above address. The docket room is open between the hours of 8 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays.

Issued in Washington, DC on July 14, 1990.

**Clifford P. Tomaszewski,**

*Acting Deputy Assistant Secretary for Fuels Programs, Office of Fossil Energy.*

[FR Doc. 90–17386 Filed 7–24–90; 8:45 am]

BILLING CODE 6450–01–M

## ENVIRONMENTAL PROTECTION AGENCY

[FRL–3813–3]

### Agency Information Collection Activities Under OMB Review

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), this notice announces that the Information Collection Request (ICR) abstracted below has been forwarded to the Office of Management and Budget (OMB) for review and comment. The ICR describes the nature of the information collection and its expected cost and burden.

**DATES:** Comments must be submitted on or before August 24, 1990.

**FOR FURTHER INFORMATION CONTACT:** Sandy Farmer at EPA, (202) 382–2740.

**SUPPLEMENTARY INFORMATION:**

**Office of Water**

*Title:* National Wastewater Pretreatment Program Reporting Requirements (ICR no. 0002.06).

*Abstract:* Under the Clean Water Act, EPA has developed national pretreatment standards for controlling discharges into sewage systems by industrial users and publicly-owned treatment works (POTWs). These standards serve to prevent certain pollutants from passing through treatment plants or interfering with their operations and thereby threatening the environment or public health.

Monitoring and enforcement of the pretreatment standards can be delegated to States or to individual POTWs. ICR 0002.06 addresses the information that these authorities must submit or collect under the pretreatment program. Specifically, they must submit or collect information for delegation of the program authority to States or POTWs, for monitoring and enforcing compliance with national pretreatment standards, and for determining the applicability of categorical standards to particular industrial users.

*Burden Statement:* The public reporting burden for this collection of information is estimated to average 67.6 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

*Respondents:* Respondents are state governments, publicly-owned treatment works, and industrial users of wastewater treatment works.

*Estimated no. of Respondents:* 20,353.

*Estimated Total Annual Burden on Respondents:* 1,547,849 hours.

*Frequency of Collection:* Variable.

Send comments regarding the burden estimate, or any other aspect of this collection of information, including suggestions for reducing the burden, to:

Sandy Farmer, U.S. Environmental Protection Agency, Information Policy Branch (PM–223), 401 M Street, SW., Washington, DC 20460,

and

Tim Hunt, Office of Management and Budget, Office of Information and Regulatory Affairs, Washington, DC 20503.

Dated: July 19, 1990.

**David Schwarz,**

*Acting Director, Regulatory Management Division.*

[FR Doc. 90–17380 Filed 7–24–90; 8:45 am]

BILLING CODE 6560–50–M

## FEDERAL DEPOSIT INSURANCE CORPORATION

### Information Collection Submitted to OMB for Review

**AGENCY:** Federal Deposit Insurance Corporation.

**ACTION:** Notice of information collection submitted to OMB for review and approval under the Paperwork Reduction Act of 1980.

**SUMMARY:** In accordance with requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. chapter 35), the FDIC hereby gives notice that it has submitted to the Office of Management and Budget a request for OMB review for the information collection system identified below.

*Type of Review:* Extension of expiration date without any change in substance or method of collection.

*Title:* Notices required of Government Securities Dealers or Brokers (Insured State Nonmember Banks).

*Form Number:* G–FIN, G–FINW, G–FIN–4, G–FIN–5.

*OMB Number:* 3064–0093.

*Expiration Date of Current OMB Clearance:* July 31, 1990.

*Frequency of Response:* On occasion.

*Respondents:* Insured State nonmember banks.

*Number of Respondents:* 193.

*Number of Responses per Respondent:* 1.

*Total Annual Responses:* 193.

*Average Number of Hours per Response:* 1.

*Total Annual Burden Hours:* 193.

*OMB Reviewer:* Gary Waxman, (202) 395–7340, Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Washington, DC 20503.

*FDIC Contact:* Steven F. Hanft, (202) 898–3907, Office of the Executive Secretary, room F–400, Federal Deposit Insurance Corporation, 550 17th Street NW., Washington, DC 20429.

*Comments:* Comments on this collection of information are welcome and should be submitted on or before August 9, 1990.

**ADDRESSES:** A copy of the submission may be obtained by calling or writing the FDIC contact listed. Comments regarding the submission should be addressed to both the OMB reviewer and the FDIC contact listed above .

**SUPPLEMENTARY INFORMATION:** The Government Securities Act of 1986 requires all financial institutions that act as government securities brokers or dealers to notify their designated federal regulatory agencies of their broker-dealer activities, unless exempted from the notice requirement by Treasury Department regulation (17 CFR Part 401). Forms G–FIN, G–FINW, G–FIN–4 and G–FIN–5 have been developed to meet the reporting requirements of the Act.

Dated: July 19, 1990.

Federal Deposit Insurance Corporation.

**Hoyle L. Robinson,**

*Executive Secretary.*

[FR Doc. 90–17304 Filed 7–24–90; 8:45 am]

BILLING CODE 6714–01–M

## Information Collection Submitted to OMB for Review

**AGENCY:** Federal Deposit Insurance Corporation.

**ACTION:** Notice of information collection submitted to OMB for review and approval under the Paperwork Reduction Act of 1980.

**SUMMARY:** In accordance with requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. chapter 35), the FDIC hereby gives notice that it has submitted to the Office of Management and Budget a request to approve, for a three-year period, the information collection identified below.

*Type of Review:* New collection.

*Title:* Monthly Consolidated Foreign Currency Report of Banks in the United States.

*Form Number:* FFIEC 035.

*Frequency of Response:* Monthly.

*Respondents:* Insured state nonmember banks with more than $1 billion in commitments to purchase foreign currencies and U.S. dollar exchange.

*Number of Respondents:* 2.

*Number of Responses per Respondent:* 12.

*Total Annual Responses:* 24.

*Average Number of Hours per Response:* 10.

*Total Annual Burden Hours:* 240.

*OMB Reviewer:* Gary Waxman, (202) 395–7340, Office of Management and Budget, Paperwork Reduction Project, Washington, DC 20503.

*FDIC Contact:* Steven F. Hanft, (202) 898–3907, Office of the Executive Secretary, room F–400, Federal Deposit Insurance Corporation, 550 17th Street NW., Washington, DC 20429.

*Comments:* Comments on this collection of information are welcome and should be submitted before August 24, 1990.

**ADDRESSES:** A copy of the submission may be obtained by calling or writing the FDIC contact listed above. Comments regarding the submission should be addressed to both the OMB reviewer and the FDIC contact listed above.

**SUPPLEMENTARY INFORMATION:** The collection described above helps monitor banks' foreign exchange exposures, reactions to disruptions in exchange markets, and changing market practices. Insured state nonmember banks with more than $1 billion in commitments to purchase foreign currencies and U.S. dollar exchange must file form FFIEC 035 with the FDIC. Office of Management and Budget approval under the Paperwork Reduction Act for the FDIC to use the form FFIEC 035 was not necessary in the past because fewer than 10 respondents filed the report with the FDIC. However, since form FFIEC 035 has been approved by the OMB for use by the Office of the Controller of the Currency and the Board of Governors of the Federal Reserve system, the FDIC now wishes to follow suit in obtaining OMB approval for this colleciton.

Dated: July 19, 1990.

Federal Deposit Insurance Corporation.

**Hoyle L. Robinson,**

*Executive Secretary.*

[FR Doc. 90–17305 Filed 7–24–90; 8:45 am]

BILLING CODE 6714–01–M

## Information Collection Submitted to OMB for Review

**AGENCY:** Federal Deposit Insurance Corporation.

**ACTION:** Notice of information collection submitted to OMB for review and approval under the Paperwork Reduction Act of 1980.

**SUMMARY:** In accordance with requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. chapter 35), the FDIC hereby gives notice that it has submitted to the Office of Management and Budget a request to approve, for a three-year period, the information collection identified below.

*Type of Review:* Extension of expiration date without any change in substance or method of collection.

*Title:* Application for Federal Deposit Insurance.

*Form Number:* FDIC 6200/05.

*OMB Number:* 3064–0001.

*Expiration Date of OMB Clearance:* September 30, 1990.

*Frequency of Response:* On occasion.

*Respondents:* State nonmember banks and savings association wishing to apply for deposit insurance.

*Number of Respondents:* 128.

*Number of Response per Respondent:* 1.

*Total Annual Responses:* 128.

*Average Number of Hours per Response:* 250.

*Total Annual Burden Hours:* 32,000.

*OMB Reviewer:* Gary Waxman., (202) 395–7340, Office of Management and Budget, Paperwork Reduction Project, (3064–0075), Washington, DC 20503.

*FDIC Contact:* Steven F. Hanft, (202) 898–3907, Office of the Executive Secretary, room F–400, Federal Deposit Insurance Corporation, 550 17th Street NW., Washington, DC 20429.

*Comments:* Comments on these collections of information are welcome and should be submitted before August 24, 1990.

**ADDRESSES:** A copy of the submission may be obtained by calling or writing the FDIC contact listed above. Comments regarding the submission should be addressed to both the OMB reviewer and the FDIC contact listed above.

**SUPPLEMENTARY INFORMATION:** Under 12 USC 1815(a), any State nonmember bank and State savings association may become an insured depository institution upon application and examination by the FDIC, and approval by the FDIC's Board of Directors. The law requires the FDIC's Board to consider seven factors identified in 12 USC 1816 before approving the application. Application is made on form FDIC 6200/05.

Dated: July 19, 1990.

Federal Deposit Insurance Corporation.

**Hoyle L. Robinson,**

*Executive Secretary.*

[FR Doc. 90-17303 Filed 7-24-90; 8:45 am]

BILLING CODE 6714-01-M

## Information Collection Submitted to OMB for Review

**AGENCY:** Federal Deposit Insurance Corporation.

**ACTION:** Notice of information collection submitted to OMB for review and approval under the Paperwork Reduction Act of 1980.

**SUMMARY:** In accordance with requirements of the Paperwork Reduction Act of 1980 (44 U.S.C. chapter 35), the FDIC hereby gives notice that it has submitted to the Office of Management and Budget a request to extend, for a three-year period, its approval of the information collection identified below. There is no change in the method of substance of the collection.

*Type of Review:* Extension of expiration date without any change in substance or method of collection.

*Title:* Application for Consent to Effect a Merger-type Transaction.

*Form Number:* FDIC 6220/01.

*OMB Number:* 3064-0016.

*Expiration Date of OMB Clearance:* September 30, 1990.

*Frequency of Response:* On occasion.

*Respondents:* Insured banks wishing to effect a merger-type transaction.

*Number of Respondents:* 120.

*Number of Responses per Respondent:* 1.

*Total Annual Responses:* 120.

*Average Number of Hours per Response:* 74.

*Total Annual Burden Hours;* 8,800.

*OMB Reviewer:* Gary Waxman, (202) 395-7340, Office of Management and Budget, Paperwork Reduction Project (3064-0075), Washington, DC 20503.

*FDIC Contact:* Steven F. Hanft, (202) 898-3907, Office of the Executive Secretary, room F-400, Federal Deposit Insurance Corporation, 550 17th Street NW., Washington, DC 20429.

*Comments:* Comments on these collections of information are welcome and should be submitted before August 24, 1990.

**ADDRESSES:** A copy of the submission may be obtained by calling or writing the FDIC contact listed above. Comments regarding the submission should be addressed to both the OMB reviewer and the FDIC contact listed above.

**SUPPLEMENTARY INFORMATION:** Section 18(c) of the Federal Deposit Insurance Act (12 U.S.C. 1828(c)) requires an insured depository institution wishing to merge or consolidate with any other insured depository institution or noninsured bank or institution or, either directly or indirectly, acquire the assets of, or assume liability to pay any deposits made in any other insured depository institution or noninsured bank or institution, to apply to the responsible regulatory agency for approval. If the resulting institution is an insured nonmember bank the responsible agency is the FDIC.

Dated: July 19,1990.

Federal Deposit Insurance Corporation.

**Hoyle L. Robinson,**

*Executive Secretary.*

[FR Doc. 90-17302 Filed 7-24-90; 8:45 am]

BILLING CODE 6714-01-M

## FEDERAL EMERGENCY MANAGEMENT AGENCY

### Agency Information Collection Submitted to the Office of Management and Budget for Clearance

The Federal Emergency Management Agency (FEMA) has submitted to the Office of Management and Budget the following information collection package for clearance in accordance with the Paperwork Reduction Act (44 U.S.C. chapter 35).

*Type:* Extension.

*Title:* FEMA Nuclear Power Plant Alert and Notification System: Public Telephone Survey.

*Abstract:* FEMA shall randomly telephone survey the residents within the Emergency Planning Zone (EPZ) of 2 nuclear power plants as stipulated in appendix 3 of NUREG-0654/FEMA-REP-1, Rev. 1. From an approximate sample of 2,500 households, between 250 and 385 residences will voluntarily be surveyed following the standardized questionnaire.

*Type of Respondents:* Individuals or households.

*Estimate of Total Annual Reporting and Recordkeeping Burden:* 54 hours.

*Number of Respondents:* 656.

*Estimated Average Burden Hours Per Response:* 5 minutes.

*Frequency of Response:* Once.

Copies of the above information collection request and supporting documentation can be obtained by calling or writing the FEMA Clearance Officer, Linda Borror, (202) 646-2624, 500 C Street, SW., Washington, DC 20472.

Direct comments regarding the burden estimate or any aspect of this information collection, including suggestions for reducing this burden, to: The FEMA Clearance Officer at the above address; and to Gary Waxman, (202) 395-7340, Office of Management and Budget, 3235 New Executive Office Building, Washington, DC 20503 within four weeks of this notice.

Dated: July 16, 1990.

**Wesley C. Moore,**

*Director, Office of Administrative Support.*

[FR Doc. 90-17376 Filed 7-24-90; 8:45 am]

BILLING CODE 6718-01-M

## FEMA Advisory Board; Continuation

In accordance with the provisions of the Federal Advisory Committee Act (5 U.S.C. App. I., Supp. II, 1972), GSA Regulation 41 CFR 101.6 and FEMA Regulation 44 CFR part 12, the Director of FEMA has determined that the continuation of the FEMA Advisory Board is in the public interest in connection with the performance of duties imposed on the Agency by law.

As the principal advisory body to the Director, the objective of the Board is to continue to provide him with independent advice on FEMA plans and programs in areas of civil emergencies, such as: Natural or man-made disasters; mobilization of resource during crisis or war; civil defense and continuity-of-government measures during conflict; post-conflict efforts for national reconstitution; and other civil emergency roles assigned by Acts of Congress or by Executive Order.

The Board will draw on the expertise of its members and other sources to provide advice and make recommendations to the Director. In addition to its role of providing guidance on major issues across all FEMA program areas, the Board will provide advice concerning mission priorities, strategies for addressing Agency objectives, critiques of emerging policy and progam concepts, and options for solutions to major management problems.

The Board functions solely as an advisory body, and complies fully with the provisions of the Federal Advisory Committee Act (the "Act").

The Board consists of 21 members that have been appointed by the Director. The Board will contain broad and balanced representation from all interested segments including, but not limited to, former government officials, both Federal and State; respected representatives from academia, science and the research community; leaders in business and industry; and the public at large. To ensure the Board is objective and not influenced by special interests,

members are required to file an annual Statement of Financial Interests and Affiliations and a Conflcit of Interest Agreement (recusal statement). The members will serve at the discretion of the Director with 2-year renewable terms.

Interested persons are invited to submit comments regarding the recommendation to continue the FEMA Advisory Board. Such comments, as well as any inquiries, may be addressed to the Rules Docket Clerk, Federal Emergency Management Agency, Washington, DC 20472.

Dated: July 16, 1990.

**Jerry D. Jennings,**

*Acting Director.*

[FR Doc. 90-17375 Filed 7-24-90; 8:45 am]

BILLING CODE 6718-01-M

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**[FEMA-868-DR]**

## Amendment to Notice of a Major Disaster Declaration; Iowa

**AGENCY:** Federal Emergency Management Agency.

**ACTION:** Notice.

**SUMMARY:** This notice amends the notice of a major disaster for the State of Iowa (FEMA-868-DR), dated May 26, 1990, and related determinations.

**DATED:** July 12, 1990.

**FOR FURTHER INFORMATION CONTACT:** Neva K. Elliott, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472 (202) 646-3614.

**NOTICE:** The notice of a major disaster for the State of Iowa, dated May 26, 1990, is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of May 26, 1990:

The counties of Des Moines, Marshall, and Greene for Individual Assistance.

**Grant C. Peterson,**

*Associate Director, State and Local Programs and Support, Federal Emergency Management Agency.*

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

[FR Doc. 90-17372 Filed 7-24-90; 8:45 am]

BILLING CODE 6718-02-M

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**[FEMA-873-DR]**

## Amendment to Notice of a Major Disaster Declaration; Nebraska

**AGENCY:** Federal Emergency Management Agency.

**ACTION:** Notice.

**SUMMARY:** This notice amends the notice of a major disaster for the State of Nebraska (FEMA-873-DR), dated July 4, 1990, and related determinations.

**DATED:** July 16, 1990.

**FOR FURTHER INFORMATION CONTACT:** Neva K. Elliott, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472 (202) 646-3614.

**NOTICE:** The notice of a major disaster for the State of Nebraska, dated July 4, 1990, is hereby amended to include the following areas among those areas determined to have been adversely affected by the catastrophe declared a major disaster by the President in his declaration of July 4, 1990:

The counties of Boone, Chase, Custer, and Thayer for Individual Assistance.

**Grant C. Peterson,**

*Associate Director, State and Local Programs and Support, Federal Emergency Management Agency.*

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance.)

[FR Doc. 90-17373 Filed 7-24-90; 8:45 am]

BILLING CODE 6718-02-M

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**[FEMA-874-DR]**

## Notice of Major Disaster and Related Determinations; Wisconsin

**AGENCY:** Federal Emergency Management Agency.

**ACTION:** Notice.

**SUMMARY:** This is a notice of the Presidential Declaration of a major disaster for the State of Wisconsin (FEMA-874-DR), dated July 13, 1990, and related determinations.

**DATED:** July 13, 1990.

**FOR FURTHER INFORMATION CONTACT:** Neva K. Elliott, Disaster Assistance Programs, Federal Emergency Management Agency, Washington, DC 20472 (202) 646-3614.

**NOTICE:** Notice is hereby given that, in a letter dated July 13, 1990, the President declared a major disaster under the authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 *et seq.*, Public Law 93-288, as amended by Public Law 100-707), as follows:

I have determined that the damage in certain areas of the State of Wisconsin, resulting from severe storms, flooding, and tornadoes beginning on June 22, 1990, is of sufficient severity and magnitude to warrant a major disaster declaration under the Robert T. Stafford Disaster Relief and Emergency Assistance Act ("the Stafford Act"). I, therefore, declare that such a major disaster exists in the State of Wisconsin.

In order to provide Federal assistance, you are hereby authorized to allocate from funds available for these purposes, such amounts as you find necessary for Federal disaster assistance and administrative expenses.

You are authorized to provide Individual Assistance and Public Assistance in the designated areas. Consistent with the requirement that Federal assistance be supplemental, any Federal funds provided under the Stafford Act for Public Assistance will be limited to 75 percent of the total eligible costs.

The time period prescribed for the implementation of section 310(a), Priority to Certain Applications for Public Facility and Public Housing Assistance, shall be for a period not to exceed six months after the date of this declaration.

Notice is hereby given that pursuant to the authority vested in the Director of the Federal Emergency Management Agency under Executive Order 12148, and redelegated to me, I hereby appoint Ronald Buddecke of the Federal Emergency Management Agency to act as the Federal Coordinating Officer for this declared disaster.

I do hereby determine the following areas of the State of Wisconsin to have been affected adversely by this declared major disaster:

The counties of Brown, Crawford, Grant, Iowa, Kewaunee, Lafayette, Richland, Sauk, and Vernon for Individual Assistance and Public Assistance; and
The counties of Calumet and Rock for Individual Assistance only.

**Jerry D. Jennings,**

*Acting Director, Federal Emergency Management Agency.*

(Catalog of Federal Domestic Assistance No. 83.516, Disaster Assistance)

[FR Doc. 90- 17374 Filed 7-24-90; 8:45 am]

BILLING CODE 6718-02-M

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## FEDERAL MARITIME COMMISSION

## Agreement(s) Filed; Tampa Bay International Terminals, Inc.; Garrison Stevedoring, Inc.; Gardell Little, Rudolph Schmidt, Troy Pate and George Pate

The Federal Maritime Commission hereby gives notice of the filing of the

following agreement(s) pursuant to section 5 of the Shipping Act of 1984.

Interested parties may inspect and obtain a copy of each agreement at the Washington, DC Office of the Federal Maritime Commission, 1100 L Street NW., room 10220. Interested parties may submit comments on each agreement to the Secretary, Federal Maritime Commission, Washington, DC 20573, within 10 days after the date of the **Federal Register** in which this notice appears. The requirements for comments are found in § 572.603 of title 46 of the Code of Federal Regulations. Interested persons should consult this section before communicating with the Commission regarding a pending agreement.

**Agreement Nos.: 224–200390, 224–200390–001 and 224–200390–002**

*Title:* Tampa Bay International Terminals, Inc./Garrison Stevedoring, Inc./Gardell Little, Rudolph Schmidt, Troy Pate and George Pate Terminal Agreement.

*Parties:* Tampa Bay International Terminals, Inc. (TBIT); Garrison Stevedoring, Inc. (Garrison); Gardell Little, Rudolph Schmidt, Troy Pate and George Pate (Shareholders).

*Synopsis:* Agreement No. 224–200390 (Basic agreement) provides for: (1) TBIT to purchase substantially all of Garrison's operating assets used in the marine terminal business of Garrison at the Port of Tampa; and (2) Garrison and Shareholders (the sole shareholders of Garrison) not to own, manage, operate or acquire any marine terminal business which would compete with TBIT within a radius of 100 miles from Tampa, FL for a period of five years. Agreement No. 224–200390–001 amends by the basic agreement by: (1) Substituting its Exhibit A, Description of Assets, with a new Exhibit A; (2) amending § 4.6; and (3) deleting § 4.20. Agreement No. 224–200390–002 amends the basic agreements's paragraph (B) of § 1.3 revising certain conditions of the purchase price to be paid by TBIT.

By Order of the Federal Maritime Commission.

Dated: July 19, 1990.

**Joseph C. Polking,**

*Secretary.*

[FR Doc. 90–17331 Filed 7–24–90; 8:45 am]

BILLING CODE 6730–01–M

**Agreement(s) Filed; Tampa Bay International Terminals, Inc., Tampa of Florida, Inc., Gulf-Tampa Industries, Inc., et al.**

The Federal Maritime Commission hereby gives notice of the filing of the following agreement(s) pursuant to section 5 of the Shipping Act of 1984.

Interested parties may inspect and obtain a copy of each agreement at the Washington, DC Office of the Federal Maritime Commission, 1100 L Street, NW., room 10220. Interested parties may submit comments on each agreement to the Secretary, Federal Maritime Commission, Washington, DC 20573, within 10 days after the date of the **Federal Register** in which this notice appears. The requirements for comments are found in § 572.603 of title 46 of the Code of Federal Regulations. Interested persons should consult this section before communicating with the Commission regarding a pending agreement.

**Agreement Nos.: 224–200391**

*Title:* Tampa Bay International Terminals, Inc./Gulf-Tampa of Florida, Inc./Gulf-Tampa Industries, Inc. Terminal Agreement.

*Parties:* Tampa Bay International Terminals, Inc. (TBIT); Tampa of Florida, Inc. (Gulf-Tampa), Gulf-Tampa Industries, Inc. (Shareholder).

*Synopsis:* Agreement No. 224–200391 provides for: (1) TBIT to purchase substantially all of Gulf-Tampa's operating assets used in its marine terminal business at the Port of Tampa, FL (Tampa); and, (2) Gulf-Tampa and Shareholder (the sole shareholder of Gulf-Tampa) not to own, manage, operate or acquire any marine terminal business which would compete with TBIT within a radius of 100 miles from Tampa for a period of five years.

**Agreement No. 224–200146–001**

*Title:* Port of Portland/Nippon Yusen Kaisha, Ltd. and Mitsui O.S.K. Lines, Ltd. Terminal Agreement.

*Parties:* Port of Portland (Port), Nippon Yusen Kaisha, Ltd. (NYK), Mitsui O.S.K. Lines, Ltd. (Mitsui).

*Synopsis:* The agreement amends the parties' basic agreement to provide for: (1) NYK and Mitsui's one-year renewal of their Terminal Use Agreement with the Port; and, (2) the per-container rate to increase 5 percent as provided in article V, section D, of the basic agreement.

**Agreement No: 224–200142–001**

*Title:* Port of Portland/Hyundai Merchant Marine Co., Ltd. Terminal Agreement.

*Parties:* Port of Portland, Hyundai Merchant Marine Co., Ltd.

*Synopsis:* The Agreement provides for (1) the extension of the term of the basic Terminal Use Agreement for one year and (2) a 2.5 percent increase in the percontainer rate.

**Agreement No: 224–200055–001**

*Title:* Maryland Port Administration/ Meehan Overseas Terminal of Cambridge, Ltd. Terminal Agreement.

*Parties:* Maryland Port Administration (MPA), Meehan Overseas Terminal of Cambridge, Ltd. (Meehan).

*Synopsis:* The Agreement extends the term of the basic Lease Agreement for an additional three years with one three year renewal option. Under this lease MPA grants Meehan use of approximately 7.50 acres of the Cambridge Marine Terminal. Meehan shall use the facility for the berthing of its vessels for loading, discharging and storage of cargoes and for operations supplemental thereto. Meehan shall pay to MPA, as base rent each month during the lease term, the total of dockage and wharfage charges assessed against all vessels calling at Cambridge Marine Terminal and/or against cargo loaded onto or discharged from all vessels at the facility.

**Agreement No: 224–200141–001**

*Title:* Port of Portland/Kawasaki Kisen Kaisha, Ltd. Terminal Agreement.

*Parties:* Port of Portland (Port), Kawasaki Kisen Kaisha (KKK).

*Synopsis:* The Agreement amends the parties' basic agreement to provides for: (1) KKK's one-year renewal of their Terminal Use Agreement with the Port; and, (2) the per-container rate to increase 2.5 percent as provided in Article V, section E, of the basic agreement.

By Order of the Federal Maritime Commission.

Dated: July 19, 1990.

**Joseph C. Polking,**

*Secretary.*

[FR Doc. 90–17332 Filed 7–24–90; 8:45 am]

BILLING CODE 6730–01–M

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**[Docket No. 90–18]**

**Transportation Services, Inc. as Agent for Sea-Land Service, Inc. and Crowley Caribbean Transport, Inc. v. Mercott, Inc.; Filing of Complaint and Assignment**

Notice is given that a complaint filed by Transportation Services, Incorporated as agent for Sea-Land

Service, Inc. and Crowley Caribbean Transport, Inc. ("Complainant") against Mercott, Inc. ("Respondent") was served July 18, 1990. Complainant alleges that Respondent engaged in violations of section 10(a)(1) of the Shipping Act of 1984, 46 U.S.C. app. 1709(a)(1), by failing and refusing to remit ocean freight charges lawfully assessed pursuant to the applicable tariff for shipments of containerized broom and mop handles from Honduras to the United States between December 1988 and October 1989.

This proceeding has been assigned to Adminsitrative Law Judge Charles E. Morgan ("Presiding Officer"). Hearing in this matter, if any is held, shall commence within the time limitations prescribed in 46 CFR 502.61. The hearing shall include oral testimony and cross-examination in the discretion of the Presiding Officer only upon proper showing that there are genuine issues of material fact that cannot be resolved on the basis of sworn statements, affidavits, depositions, or other documents or that the nature of the matter in issue is such that an oral hearing and cross-examination are necessary for the development of an adequate record. Pursuant to the further terms of 46 CFR 502.61, the initial decision of the Presiding Officer in this proceeding shall be issued by July 18, 1991, and the final decision of the Commission shall be issued by November 15, 1991.

**Joseph C. Polking,**

*Secretary.*

[FR Doc. 90-17275 Filed 7-24-90; 8:45 am]

BILLING CODE 6730-01-M

## FEDERAL RESERVE SYSTEM

### Security Bancshares, Inc., et al.; Acquisitions of Companies Engaged in Permissible Nonbanking Activities

The organizations listed in this notice have applied under § 225.23(a)(2) or (f) of the Board's Regulation Y (12 CFR 225.23(a)(2) or (f)) for the Board's approval under section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.21(a) of Regulation Y (12 CFR 225.21(a)) to acquire or control voting securities or assets of a company engaged in a nonbanking activity that is listed in § 225.25 of Regulation Y as closely related to banking and permissible for bank holding companies. Unless otherwise noted such activities will be conducted throughout the United States.

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether consummation of the proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweigh possible adverse effects, such as undue concentration of resources, decreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party commenting would be aggrieved by approval of the proposal.

Unless otherwise noted, comments regarding each of these applications must be received at the Reserve Bank indicated for the application or the offices of the Board of Governors not later than August 17, 1990.

**A. Federal Reserve Bank of Kansas City** (Thomas M. Hoenig, Vice President) 925 Grand Avenue, Kansas City, Missouri 64198:

*1. Security Bancshares, Inc.*, Scott City, Kansas; to acquire Crownover Insurance Agency, Inc., Oakley, Kansas, and thereby engage in the sale of general insurance in Oakley, Kansas, a town with a population of less than 5,000 pursuant to § 225.25(b)(8)(iii)(A) of the Board's Regulation Y.

**B. Federal Reserve Bank of San Francisco** (Harry W. Green, Vice President) 101 Market Street, San Francisco, California 94105:

*1. The Mitsubishi Bank, Ltd.*, Tokyo, Japan, and BanCal Tri-State Corporation, San Francisco, California; to acquire Mills-Ralston, Inc., San Francisco California, and thereby engage in making, servicing, and acquiring loans pursuant to § 225.25(b)(1) of the Board's Regulation Y.

*2. The Sumitomo Bank, Limited*, Osaka, Japan; to acquire SB General Leasing (USA), Inc., Greenwich, Connecticut, and thereby engage in leasing personal or real property, or acting as agent, broker or adviser in leasing such property pursuant to § 225.25(b)(5); and making and acquiring loans and other extensions of credit such as would be made by a commercial finance company pursuant to § 225.25(b)(1) of the Board's Regulation Y.

Board of Governors of the Federal Reserve System, July 19, 1990.

**Jennifer J. Johnson,**

*Associate Secretary of the Board.*

[FR Doc. 90-17328 Filed 7-24-90; 8:45 am]

BILLING CODE 6210-01-M

### Sumitomo Bank, Limited; Application to Engage de novo in Permissible Nonbanking Activities

The company listed in this notice has filed an applciation under § 225.23(a)(1) of the Board's Regulation Y (12 CFR 225.23(a)(1)) for The Board's approval under section 4(c)(8) of the Bank Holding Company Act (12 U.S.C. 1843(c)(8)) and § 225.21(a) of Regulation Y (12 CFR 225.21(a)) to commence or to engage *de novo*, either directly or through a subsidiary, in a nonbanking activity that is listed in § 225.25 of Regulation Y as closely related to banking and permissible for bank holding companies. Unless otherwise noted, such activities will be conducted throughout the United States.

The application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the question whether consummation of the proposal can "reasonably be expected to produce benefits to the public, such as greater convenience, increased competition, or gains in efficiency, that outweight possible adverse effects, such as undue concentration of resources, descreased or unfair competition, conflicts of interests, or unsound banking practices." Any request for a hearing on this question must be accompanied by a statement of the reasons a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute, summarizing the evidence that would be presented at a hearing, and indicating how the party commenting would be aggrieved by approval of the proposal.

Comments regarding the application must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than August 17, 1990.

**A. Federal Reserve Bank of San Francisco** (Harry W. Green, Vice President) 101 Market Street, San Francisco, California 94105:

*1. The Sumitomo Bank, Limited*, Osaka, Japan; to engage *de noveo* through its subsidiary, Sumitomo Bank

Investment Management, Inc., New York, New York, in trust company functions pursuant to § 225.25(b)(3); and acting as an investment or financial adviser pursuant to § 225.25(b)(4) of the Board's Regulation Y.

Board of Governors of the Federal Reserve System, July 19, 1990.

**Jennifer J. Johnson,**

*Associate Secretary of the Board.*

[FR Doc. 90-17329 Filed 7-24-90; 8:45 am]

BILLING CODE 6210-01-M

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**Tysons Financial Corporation, et al.; Formations of; Acquisitions by; and Mergers of Bank Holding Companies**

The companies listed in this notice have applied for the Board's approval under section 3 of the Bank Holding Company Act (12 U.S.C. 1842) and § 225.14 of the Board's Regulation Y (12 CFR 225.14) to become a bank holding company or to acquire a bank or bank holding company. The factors that are considered in acting on the applications are set forth in section 3(c) of the Act (12 U.S.C. 1842(c)).

Each application is available for immediate inspection at the Federal Reserve Bank indicated. Once the application has been accepted for processing, it will also be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank or to the offices of the Board of Governors. Any comment on an application that requests a hearing must include a statement of why a written presentation would not suffice in lieu of a hearing, identifying specifically any questions of fact that are in dispute and summarizing the evidence that would be presented at a hearing.

Unless otherwise noted, comments regarding each of these applications must be received not later than August 17, 1990.

**A. Federal Reserve Bank of Richmond** (Lloyd W. Bostian, Jr., Vice President) 701 East Byrd Street, Richmond, Virginia 23261:

*1. Tysons Financial Corporation,* Vienna, Virginia; to become a bank holding company by acquiring 100 percent of the voting shares of Tysons National Bank, Vienna, Virginia, a *de novo* bank.

**B. Federal Reserve Bank of Kansas City** (Thomas M. Hoenig, Vice President) 925 Grand Avenue, Kansas City, Missouri 64198:

*1. FirsTier Financial, Inc.,* Omaha, Nebraska; to acquire at least 34 percent of the voting shares of Guaranty Corporation, Denver, Colorado, and thereby indirectly acquire Guaranty Bank & Trust Company, Denver, Colorado.

*2. Lowry Facilities, Inc.,* Clinton, Oklahoma; to acquire an additional 1.96 percent of the voting shares of Oklahoma Bancorporation, Inc., Clinton, Oklahoma, for a total of 36.1 percent, and thereby indirectly acquire Oklahoma Bank and Trust Company, Clinton, Oklahoma.

Board of Governors of the Federal Reserve System, July 19, 1990.

**Jennifer J. Johnson,**

*Associate Secretary of the Board.*

[FR Doc. 90-17330 Filed 7-24-90; 8:45 am]

BILLING CODE 6210-01-M

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## GENERAL SERVICES ADMINISTRATION

**Information Collection Activities Under Office of Management and Budget Review**

**AGENCY:** Office of Acquisition Policy (VP), GSA.

**SUMMARY:** The GSA hereby gives notice under the Paperwork Reduction Act of 1980 that it is requesting the Office of Management and Budget (OMB) to renew expiring information collection 3090-0027, GSAR part 542—Contract Administration and part 546—Quality Assurance. This information is used by various contract administration and other support offices for quality assurance, acceptance of supplies and services, shipments, and to justify payments.

**ADDRESSES:** Send comments to Bruce McConnell, GSA Desk Officer, room 3235, NEOB, Washington, DC, 20503, and to Mary L. Cunningham, GSA Clearance Officer, General Services Administration (CAIR), 18th & F Street NW., Washington, DC 20405.

*Annual Reporting Burden:* Respondents: 8,087; annual responses: 76.0; average hours per response: 0.0500; burden hours: 30,731.

**FOR FURTHER INFORMATION CONTACT:** Ida M. Ustad, (202) 501-1224. Copy of Proposal: May be obained from the Information Collection Management Branch (CAIR), room 7102, GSA Building, 18th & F St. NW., Washington, DC 20405, by telephoning (202) 501-2691, or by faxing your request to (202) 501-2727.

Dated: July 3, 1990.

**Emily C. Karam,**

*Director, Information Management Division.*

[FR Doc. 90-17270 Filed 7-24-90; 8:45 am]

BILLING CODE 6820-61-M

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## DEPARTMENT OF HEALTH AND HUMAN SERVICES

**Food and Drug Administration**

**The Eugene Ingmand Co., Kay Dee Feed Co., Good-Life Division of Central Soya Co., Inc.; Withdrawal of Approval of NADA's**

**AGENCY:** The Food and Drug Administration, HHS.

**ACTION:** Notice.

**SUMMARY:** The Food and Drug Administration (FDA) is withdrawing approval of several new animal drug applications (NADA's), one held by The Eugene Ingmand Co. for the use of a tylosin Type A medicated article to make a Type C swine feed; two held by Kay Dee Feed Co., one for the use of a tylosin Type A medicated article to make a Type C chicken, swine, and beef cattle feed, and one for the use of a tylosin-sulfamethazine Type A medicated article for making a Type C swine feed; and one held by Good-Life Division of Central Soya Co., Inc., for the use of a pyrantel tartrate Type A medicated article to make a Type C swine feed. The firms requested withdrawal of approval of the NADA's.

**EFFECTIVE DATE:** August 6, 1990.

**FOR FURTHER INFORMATION CONTACT:** Mohammad I. Sharar, Center for Veterinary Medicine (HFV-216), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301-443-4093.

**SUPPLEMENTARY INFORMATION:** The Eugene Ingmand Co., P.O. Box 22, Red Oak, IA 51566, is the sponsor of NADA 91-465 which provides for the use of a tylosin Type A medicated article to make a Type C swine feed. Kay Dee Feed Co., 1919 Grand Ave., P.O. Box 2334, Sioux City, IA 51107-0334, is the sponsor of NADA 111-814 which provides for the use of a tylosin Type A medicated article to make a Type C chicken, swine, and beef cattle feed, and NADA 128-255 which provides for the use of a tylosin-sulfamethazine Type A medicated article to make a Type C swine feed. Good-Life Division of Central Soya Co., Inc., Good-Life Dr., P.O. Box 687, Effingham, IL 62401, is the sponsor of NADA 134-286 which provides for the use of a pyrantel tartrate Type A medicated article to make a Type C swine feed. By letter of December 28, 1989, The Eugene Ingmand Co. requested withdrawal of approval of its NADA 91-465. By letter of January 9, 1990, Kay Dee Feed Co. requested withdrawal of approval of their NADA's 111-814 and 128-255. By letter of

October 27, 1989, Good-Life Division of Central Soya Co., Inc., requested withdrawal of approval of its NADA 134–286.

Therefore, under authority delegated to the Commissioner of Food and Drugs (21 CFR 5.10) and redelegated to the Center for Veterinary Medicine (21 CFR 5.84), and in accordance with § 514.115 Withdrawal of approval of applications (21 CFR 514.115), notice is given that approval of NADA's 91–465, 111–814, 128–255, and 134–286 and all supplements and amendments thereto is hereby withdrawn, effective August 6, 1990.

In a final rule published elsewhere in this issue of the **Federal Register**, FDA is amending 21 CFR 510.600(c)(1) and (c)(2), 558.485(a)(14), 558.625(b)(49) and (b)(56), and 558.630(b)(8) to reflect the withdrawal of the approval of these NADA's.

Dated: July 12, 1990.

**Gerald B. Guest,**

*Director, Center for Veterinary Medicine.*

[FR Doc. 90–17315 Filed 7–24–90; 8:45 am]

BILLING CODE 4160–01–M

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## Centers for Disease Control

**[Program Announcement 042]**

## Cooperative Agreement for Breast and Cervical Cancer Public Education Technical Assistance and Training

### Introduction

The Centers for Disease Control (CDC) announces the availability of funds in Fiscal Year 1990 for one competing cooperative agreement to: (A) Assist a State health agency (hereby designated as a comprehensive State) funded under Announcement Number 32, Breast and Cervical Cancer Prevention and Control Program, published in the **Federal Register** on May 21, 1990 [55 FR 20851], in the development or enhancement of a breast and cervical cancer public education program, and (B) collaborate with CDC in the development and implementation of a breast and cervical cancer public education training (capacity-building) program to meet the technical nationwide needs of State and local public health practitioners.

**Authority:** This program is authorized by section 301(a) [42 U.S.C. 241(a)] and section 317(k)(3) [42 U.S.C. 247(b)(k)(3] of the Public Health Service Act, as amended.

### Eligible Applicants

Eligible applicants include academic institutions, public, private, nonprofit, health, education, professional, or voluntary organizations with organizational capacities and experience to assist public health agencies in providing effective public education regarding breast and cervical cancer.

### Availability of Funds

Approximately $400,000 will be available in Fiscal Year 1990 to fund one cooperative agreement. This award is expected to begin on or about September 28, 1990, for a 12-month budget period within a 1- to 3-year project period. Continuation awards for a new budget period, within the approved project period, will be made on the basis of satisfactory performance and the availability of funds.

### Use of Funds

Funds will not be awarded for purchase or lease of land or buildings, for construction of a facility, or renovation of existing space. Purchase of equipment is discouraged but will be considered for approval if justified on the basis of being essential to the program and not available from any other source. Cooperative agreement funds shall not be used for delivery of clinical or therapeutic services.

### Recipient Financial Participation

This program has no statutory formula. No specific matching funds are required; however the application should include specifics of the applicant's contribution to the overall program cost.

### Purpose

The purpose of this cooperative agreement is: (A) To assist a Statewide comprehensive State health agency program in the development and/or enhancement of a breast and cervical cancer public education program. Statewide comprehensive health agency programs are based on a strategic cancer prevention and control plan which serves as the foundation for the coordinated interaction of: (1) A cancer surveillance system; (2) public and provider education; (3) available and accessible facilities for screening and follow-up staffed by qualified personnel; and (4) a system of quality assurance to ensure accurate and early detection of the disease or its precursors; and (B) to assist CDC with the design, implementation, and evaluation of practical training (capacity building) programs in breast and cervical cancer public education that are capable of reaching public health practitioners in all States.

The general training goal is to enhance the capacity of State and local public health practitioners to apply public health promotion and education methods as a critical component of an overall strategy to reduce the needless pain, suffering, and mortality associated with breast and cervical cancers.

An integral part of this cooperative agreement will be assistance in the development and implementation of practical monitoring systems. For the former (A, above), a system to assess the impact of the public education program; for the latter (B, above), a system to ascertain the quality of training.

### Cooperative Activities

In conducting activities to achieve the purpose of this program, the recipient shall be responsible for conducting activities under I. below and CDC will be responsible for conducting activities under II. below.

*I. Recipient Activities*

A. Recipient activities with the "Comprehensive" State.

1. Beginning in Year 1 and continuing throughout the project period, assist the "comprehensive" State in the development, implementation, dissemination, and evaluation of a breast and cervical cancer public education program.

2. Collaborate with the "comprehensive" State and provide assistance in the following areas of a breast and cervical cancer public education program:

a. Identifying barriers to breast and cervical cancer screening and assessing removal of these barriers through public education.

b. Analyzing the actual or potential impact of existing breast and cervical cancer public education efforts directed to the target population identified by the (comprehensive) state, and assisting in the design of methods to improve these efforts.

c. Identifying public education strategies based on empirical evidence or theory to effectively motivate women to seek breast and/or cervical cancer screening.

4. Developing and/or selecting educational materials, intervention strategies, or educational resources to enhance the effectiveness of breast and cervical cancer public education.

e. Designing and implementing systems to assess progress in achieving public education objectives and evaluating public education activities.

f. Developing and implementing public education training and staff development programs.

B. Recipient activities with CDC for training other State and local health agencies.

1. Collaborate to establish and periodically convene (biannually in Year 1, annually in Year 2 and 3) a work group of independent experts in the field of public health promotion and education with experience in conducting large-scale compaigns and site-specific interventions and communicating general health research and application methods. This group, using the results of literature reviews and their own qualifications and experiences, will:

a. Advise CDC on the effectiveness of health promotion and education campaigns for public health programs in general and breast and cervical cancer screening in particular; and

b. Assist CDC in determining the appropriateness of various training protocols and their potential for improving the performance of public health practitioners.

2. Collaborate in the identification of essential components of training protocols for building State and local health practitioners' capacity to conduct breast and cervical cancer public education programs.

3. Participate in the development and dissemination of "guidelines" for the implementation of training, including: (a) Specific training objectives, (b) sequence and duration of training exposures over a 3-year period, (c) the use of community "team" training, and (d) critical indicators of training effectiveness.

4. Collaborate, in Year 1, to develop a breast and cervical cancer public education strategy to meet the technical needs of State and local public health practitioners from the public, private, and voluntary sectors. The training strategy should be designed taking into account the resource needs, existing skills, and the time constraints of public health practitioners. The development and design of the overall training approach may include descriptions of:

a. Training goals and objectives;

b. Qualifications of personnel responsible for training including the participation of those with State and local expertise (*e.g.*, local American Cancer Society staff, cancer research centers, media outlets, hospitals, primary care physicians, *etc.*);

c. Training recruitment procedures for public health practitioners nationwide from the public, private, and voluntary sectors;

d. The training materials (including appropriate use of interactive computer programs and simulations) with special consideration to the development of materials and other resources addressing the unique needs of minority, rural and underserved populations;

e. Educational materials and/or strategies previously developed and tested by the National Cancer Institute, the American Cancer Society or other cancer centers in the United States, which where appropriate, are used for training and subsequent application:

f. Methods and theoretical rationale for the proposed breast and cervical cancer public education training:

g. A plan to assess training effectiveness, including the systematic follow-up of participants' application of knowledge and skill subsequent to the training program; and

h. A training dissemination plan, including recruitment and follow-up of training participants, application of "training of trainers," preparation and distribution of training manuals for participants and CDC staff, and communications with professional and voluntary organizations.

5. Collaborate to pilot/field test the breast and cervical cancer public education training program in the "comprehensive" State (Year 1).

6. Collaborate to systematically implement breast and cervical cancer public education training in accordance with dissemination plan (Year 1–3).

7. Collaborate to develop a plan to document and disseminate training materials, and the results of training (Year 3).

*II. Centers for Disease Control Activities*

A. Periodically convene personnel from all organizations that are receiving training to ensure coordination in the application of technical assistance and the development and dissemination of training programs. (Personnel will be convened biannually in Year 1 and as needed thereafter).

B. Ensure timely communication program activities to all participating State and local public health agencies (Year 1–3).

C. Collaborate with recipient in their interactions with State and local official public health agencies (Year 1–3).

D. Collaborate with the recipient in the assessment of needs and the dissemination of technical assistance activities to the "comprehensive" State (Year 1–3).

E. Collaborate with the recipient in collating, analyzing, and reporting information regarding breast and cervical cancer public education (Year 1–3).

F. Collaborate with the recipient in the planning, development, and dissemination of the breast and cervical cancer public education training programs (Year 1–3).

G. Collaborate with recipient in the publication, documentation, and dissemination of training materials, training manuals, information on training impact, and results of technical assistance activities in the "comprehensive" State (Year 1–3).

Projects funded through a cooperative agreement that involve collection of information from 10 or more individuals will be subject to review under the Paperwork Reduction Act.

Evaluation Criteria

*I. Weighted Evaluation Criteria*

The initial application will be reviewed and evaluated based on the following criteria:

A. The extent to which the applicant understands the purpose and objectives of the project as a demonstration of their understanding of Recipient Activities. (10 points)

B. The methods and activities to be undertaken to effectively and efficiently provide breast and cervical cancer public education technical assistance to the "comprehensive" State including collaboration in the planning, implementation, dissemination, and evaluation of public education programs as defined under Recipient Activities (section I.A.). (15 points)

C. The methods and activities to be undertaken to effectively and efficiently provide breast and cervical cancer public education training to a significant number of public health practitioners nationwide from the public, private, and voluntary sector including the design, implementation, and assessment of training programs as defined under Recipient Activities (section I.B.). (15 points)

D. The consistency of the specific and time-related measurable objectives with the stated purpose of the cooperative agreement and the ability to monitor and document the effects of the program both in terms of the impact of the "comprehensive" State's breast and cervical cancer public education program and the quality of breast and cervical cancer public education training provided to public health practitioners. (10 points)

E. The Extent to which the applicant demonstrates knowledge, experience, and organizational capacity to access and utilize the considerable public education resources currently available, to provide technical assistance and capacity-building services to public health agencies, and to conduct public

education research and demonstration projects. (10) points)

F. The academic qualifications, experience, and appropriateness of proposed personnel to accomplish proposed activities. (10 points)

G. The degree of involvement with CDC staff, State and local health departments, and other public, private, and voluntary organizations. The degree of involvement will also be measured by the likelihood that these relationships will be sustained or expanded in future years. (10 points)

H. The extent to which the application reflects evidence of effective working relationships with State and local health departments and other organizations whose active support and participation are essential to successful implementation of proposed activities. (10 points)

I. The program management plan including specific project milestones, staffing assignments, organizational structure and capacity. (10 points).

J. The extent to which the budget is reasonable and consistent with the intended use of cooperative agreement funds.

**Executive Order 12372 Review**

Applications are not subject to Intergovernmental Review of Federal Programs as governed by Executive Order 12372.

Catalog of Federal Domestic Assistance Number

The Catalog of Federal Domestic Assistance number is 13.283.

**Application Submission and Deadline**

The original and two copies of the application (PHS Form 5161–1) must be submitted to Candice Nowicki, Grants Management Officer, Grants Management Branch, Mailstop E–14, Procurement and Grants Office, Centers for Disease Control, 255 East Paces Ferry Road, NE., room 321, Atlanta, Georgia 30305, on or before September 7, 1990.

A. *Deadline:* Applications will be considered to meet the deadline if they are either:

1. Received at the above address on or before the deadline date, or

2 Sent on or before August 1, 1990, and received in time for submission to the independent review group. (Applicant should request a legibly dated U.S. Postal Service postmark or obtain a legibly dated receipt from a commercial carrier or the U.S. Postal Service. Private metered postmarks will not be accepted as proof of timely mailing.)

B. *Late Applications:* Applications which do not meet the above criteria in A.1. or 2. are considered late applications. Late applications will not be considered in the current competition and will be returned to the applicant.

**Where To Obtain Additional Information**

A complete program description, information on application procedures and an application package may be obtained from Linda Long, Grants Management Specialist, Grants Management Branch, Mailstop E–14, Procurement and Grants Office, Centers for Disease Control, 255 East Paces Ferry Rd, NE., Atlanta, GA 30305, telephone (404) 842–6511 or FTS 236–6511.

Please refer to Announcement Number 042 when requesting information and submitting any application on the Request for Assistance.

Technical assistance may be obtained from Gary Nelson Ph.D., Cancer Prevention and Control Branch, Division of Chronic Disease Control and Community Intervention, Mailstop F–11, Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control, Atlantia, GA 30333, telephone (404) 488–4391 or FTS 236–4391.

Dated July 18, 1990.

**Robert L. Foster,**

*Acting Director, Office of Program Support, Centers for Disease Control.*

[FR Doc. 90–17338 Filed 7–24–90; 8:45 am]

BILLING CODE 4160–18–M

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**[Announcement Number 046]**

## Cooperative Agreement Between CDC/ASTHO State Tobacco-Use Control Activities and Information Network, Program Announcement and Availability of Funds for Fiscal Year 1990

**Introduction**

The Centers for Disease Control (CDC) announces the availability of funds in Fiscal Year 1990 for a cooperative agreement with the Association of State and Territorial Health Officials (ASTHO) to provide technical and financial assistnce to health department tobacco-use prevention and control programs.

**Authority:** This program is authorized under the Public Health Service Act section 301(a) (42 U.S.C. 241(a)) and section 317 (42 U.S.C. 247b), as amended.

**Eligibility**

This is not a formal request for applications. Assistance will be provided only to ASTHO for the support of this project. No other applications are solicited or will be accepted.

Eligibility is limited to ASTHO since it provides representation from all state and territorial public health officials, including a network of health department tobacco control representatives identified through these officials. ASTHO was created specifically to represent this group of state agencies to the Federal government and other national organizations and is unique in its role as a liaison between these officials. It has served as a policy development and capacity-building organization in public health matters for many years and has as one of its major objectives the sharing of information between State health departments.

ASTHO has established a unique network of public health professionals in each state and territory who are concerned with tobacco-use prevention and control. ASTHO has maintained active involvement in tobacco-related issues through their Tobacco or Health Committee. With assistance from CDC, the National Cancer Institute (NCI), and the National Health, Lung, and Blood Institute (NHLBI), this committee has (1) developed a network of tobacco control representatives, (2) implemented regular mailings and communications with State health officials, and (3) coordinated activities between Federal agencies and states.

In addition, the Public Health Foundation, a support arm of ASTHO, maintains an electronic mail system used by some State health officials, and provides technical assistance, publications, and training to State-based public health workers on a variety of issues. Although some organizations may possess some of these attributes, no other organization has the unique role and established track record with State and territorial health officials necessary to effectively carry out the activities entailed in this cooperative agreement.

**Availability of Funds**

Approximately $60,000 is available in Fiscal Year 1990 to support this program. It is expected that the award will be made on or about September 15, 1990, for a 12-month budget within a 1- to 3-year project period. This funding estimate may change. Continuation awards within the approved project period will be made on the basis of satisfactory performance and the availability of funds.

**Purpose**

The purpose of this cooperative agreement is to facilitate the ASTHO

efforts to assist State health departments in maintaining and enhancing their tobacco-use prevention programs and thereby further promote the national program goals of the Office on Smoking and Health (OSH). These activities include:

A. Development and dissemination of scientific and public information about smoking, tobacco, and health to ASTHO affiliates and related interest individuals and organizations such as State and local health departments, professional organizations and voluntary health organizations.

B. Stimulation of tobacco control among State and local health departments, professional organizations, voluntary health organizations, and other jurisdictions.

C. Maintenance of a database on biomedical literature related to tobacco and health for the benefit of organizations affiliated with or related to ASTHO.

D. Assist in the coordination of national and State-based tobacco education and research efforts within the Federal government.

**Program Requirements**

In concluding activities to achieve the purpose of this program, the recipient shall be responsible for conducting activities under A. below and CDC will be responsible for conducting activities under B. below.

*A. Recipient Activities*

1. Using material developed by ASTHO or material provided by OSH, NCI, NHLBI or other appropriate sources, prepare and distribute informational packages through electronic and/or postal mailings to ASTHO affiliates and other interested organizations.

2. Maintain and disseminate the mailing list of State tobacco control contacts.

3. Ensure that State health officials and others in State health departments are kept informed of important tobacco-related issues.

4. Report annually on State tobacco prevention and control program activities, in cooperation with OSH, CDC, and NHLBI.

5. Maintain a database of tobacco intervention and information resources, including State regulations and new legislation, for access by public health workers.

6. Organize and provide meeting support for semi-annual workshops of the ASTHO Tobacco or Health Committee.

7. Provide resource and consultation to regional alliances of States that undertake cooperative tobacco control and prevention activities.

8. Sponsor, plan, and convene one national meeting of State tobacco prevention and control representatives to share information on State activities and to learn additional tobacco control technologies.

9. Assist State tobacco control representatives in training for, and maintenance of, an electronic mail system.

10. Provide a full-time staff person to coordinate and oversee the entire project.

*B. CDC Activities*

1. Assist in the development and wide distribution of informational packages and mailings to States.

2. Assist in the development of the databases of tobacco intervention program and policies.

3. Collaborate in the planning and support of all workshops, conferences, and other professional gatherings that serve a public health purpose, and provide speakers for meetings that are national in scope.

4. Provide analytical expertise and assist in preparation of material for publication, including information on State tobacco prevention and control activities.

5. Provide technical assistance to States and ASTHO regarding tobacco control programs and policies.

**Evaluation Criteria**

The application will be evaluated on the following criteria:

A. Evidence of the applicant's understanding of the problem and the purpose of the program;

B. The consistency of the measurable objectives with the stated purpose of the program and the ability to meet the objectives and timetable within the specific period;

C. The adequacy of the applicant's plan to carry out the activities proposed;

D. The adequacy of the applicant's plan to monitor progress toward meeting the objectives of the project;

E. The applicant's capability to provide staff and resources necessary to perform the project.

In addition, consideration will be given to the appropriateness and reasonableness of the budget request and the proposed use of funds.

**Executive Order 12372 Review**

This application is not subject to review as governed by Executive Order 12372 Review.

Catalog of Domestic Federal Assistance Number

The Catalog of Federal Domestic Assistance Number is 13.283.

**Application Submission and Deadline**

An original and two copies of the application (Form PHS–5161–1) must be submitted to Candice Nowicki, Grants Management Officer, Grants Management Branch, Procurement and Grants Office, Centers for Disease Control, 255 East Paces Ferry Road NE., room 300, Atlanta, GA 30305, on or before August 23, 1990.

A. Deadline: Applications shall be considered as meeting the deadline if they are either:

1. Received on or before the deadline date, or

2. Sent on or before the deadline date and received in time for submission to the independent review group. (Applicants must request a legibly dated U.S. Postal Service postmark or obtain a legibly dated receipt from a commercial carrier or U.S. Postal Service. Private metered postmarks shall not be considered acceptable proof of timely mailing.)

B. Late Applications: Applications that do not meet the criteria in A.1. or A.2. above are considered late applications. Late applications will not be considered in the current competition and will be returned to the applicant.

**Where To Obtain Additional Information**

Information on application procedures, copies of application forms, and other material may be obtained from Marsha D. Driggans, Grants Management Specialist, Grants Management Branch, Procurement and Grants Office, Centers for Disease Control, 255 East Paces Ferry Road NE., room 300, Atlanta, GA 30305, (404) 842–6805.

Announcement Number #046, "State Tobacco-Use Control Activities and Information Network," must be referenced in all requests for information pertaining to this project.

Technical assistance may be obtained from John Hybarger, Office of the Director, Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control, Mailstop A37, Altanta, GA 30333, (404) 639–1556; or Thomas E. Novotny, M.D., Office on Smoking and Health, room 1–10, Park Building, 5600 Fishers Lane, Rockville, MD 20857, (301) 443–1575.

Dated: July 18, 1990.

**Robert L. Foster,**

*Acting Director, Office of Program Support, Centers for Disease Control.*

[FR Doc. 90–17337 Filed 7–24–90; 8:45 am]

BILLING CODE 4160–18–M

## Health Resources and Services Administration

### Health Education Assistance Loan Program; Maximum Interest Rates for Quarter Ending September 30, 1990

Section 727 of the Public Health Service Act (42 U.S.C. 294) authorizes the Secretary of Health and Human Services to establish a Federal program of student loan insurance for graduate students in health professions schools.

Section 60.13(a)(4) of the program's implementing regulations (42 CFR part 60, previously 45 CFR part 126) provides that the Secretary will announce the interest rate in effect on a quarterly basis.

The Secretary announces that for the period ending September 30, 1990, there interest rates are in effect for loans executed through the Health Education Assistance Loan (HEAL) program.

1. For loans made before January 27, 1981, the variable interest rate is 11⅝ percent. Using the regulatory formula (45 CFR 126.13(a)), in effect prior to January 27, 1981, the Secretary would normally compute the variable rate for this quarter by finding the sum of the fixed annual rate (7 percent) and a variable component calculated by subtracting 3.50 percent from the average bond equivalent rate of 91-day U.S. Treasury bills for the preceding calendar quarter (8.03 percent), and rounding the result (11.53 percent) upward to the nearest ⅛ percent (11⅝ percent).

However, the regulatory formula also provides that the annual rate of the variable interest rate for a 3-month period shall be reduced to the highest one-eight of 1 percent which would result in an average annual rate not in excess of 12 percent for the 12-month period concluded by those 3 months. Because the average rate of the 4 quarters ending September 30, 1990, is not in excess of 12 percent, there is no necessity for reducing the interest rate. For the previous 3 quarters the variable interst at the annual rate was as follows: 11⅝ percent for the quarter ending December 31, 1989; 11½ percent for the quarter ending March 31, 1990; and 11⅝ percent for the quarter ending June 30, 1990.

2. For variable rate loans executed during the period of January 27, 1981 through October 21, 1985, the interest rate is 11⅝ percent. Using the regulatory formula (42 CFR 60.13(a)) in effect for that time period, the Secretary computes the maximum interest rate at the beginning of each calendar quarter by determining the average bond equivalent rate for the 91-day U.S. Treasury bills during the preceding quarter (8.03 percent); adding 3.50 percent (11.53 percent); and rounding that figure to the next higher one-eighth of 1 percent (11⅝ percent).

3. For fixed rate loans executed during the period of July 1, 1990 through September 30, 1990, and for variable rate loans executed on or after October 22, 1985, the interest rate is 11⅛ percent. The Health Professions Training Assistance Act of 1985 (Pub. L. 99–129), enacted October 22, 1985, amended the formula for calculating the interest rate by changing 3.5 percent to 3 percent. Using the regulatory formula (42 CFR 60.13(a)), the Secretary computes the maximum interest rate at the beginning of each calendar quarter by determining the average bond equivalent rate for the 91-day U.S. Treasury bills during the preceding quarter (8.03 percent); adding 3.0 percent (11.03 percent) and rounding that figure to the next higher one-eighth of 1 percent. (11⅛ percent).

(Catalog of Federal Domestic Assistance No. 13.108, Health Education Assistance Loans)

Dated: July 18, 1990.

**Robert G. Harmon,**

*Administrator.*

[FR Doc. 90–17267 Filed 7–24–90; 8:45 am]

BILLING CODE 4160–15–M

### Advisory Council Meeting

In accordance with section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92–463), announcement is made of the following National Advisory body scheduled to meet during the month of August 1990:

*Name:* Subcommittee on Minority Representation in Medicine of the Council on Graduate Medical Education

*Time:* August 15, 1990, 8:30 a.m.—3:30 p.m.

*Place:* Parklawn Conference Center, Conference Room G, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20857

Open for entire meeting.

*Purpose:* To provide a forum for discussing participation of minority group members in medicine, to continue to monitor the progress of minority representation in medicine, to guard against regression from what has been achieved, and to expand efforts where possible.

*Agenda:* Review the analytical agenda and data needs relative to action plan involving solutions and approaches to the problems and issues of the under presentation of Black Americans, Native Americans, Mexican Americans and Mainland Puerto Ricans in medicine.

Anyone requiring information regarding the subject Subcommittee should contact Ronald L. Craig, Subcommittee Principal Staff Liaison, Division of Medicine, Bureau of Health Professions, Room 4C–18, Parklawn Building, 5600 Fishers Lane, Rockville, Maryland 20857 Telephone (301) 443–6326.

Agenda Items are subject to change as priorities dictate.

Dated: July 19, 1990.

**Jackie E. Baum,**

*Advisory Committee Management Officer, HRSA.*

[FR Doc. 90–17268 Filed 7–24–90; 8:45 am]

BILLING CODE 4160–15–M

## DEPARTMENT OF THE INTERIOR

### Office of the Secretary

### Wetlands Task Force Meetings

**AGENCY:** Office of the Secretary, Interior.

**ACTION:** Notice of meetings and request for comments.

**SUMMARY:** The Domestic Policy Council's Task Force on Wetlands seeks public comment regarding strategies for working toward a national goal of "no net loss" of wetlands. The Task Force will hold a series of public meetings around the country to receive public views and recommendations on specific wetland issues.

**DATES:** All meetings are open to the public. The public meetings will be held from 9 a.m. to 6 p.m. as listed.

August 17: The Doublewood Hotel, 1400 East Interchange Avenue, Bismarck, North Dakota.

August 20: The Continental Hotel, 500 Hamilton Boulevard, Peoria, Illinois.

August 27: The Sheraton Airport Hotel, 2150 Veterans Boulevard, New Orleans, Louisiana.

September 5: The Tyee Hotel, 500 Tyee Drive, Olympia, Washington.

September 7: The Clarion Hotel, 4800 Spenard Road, Anchorage, Alaska.

September 17: The Omni Biltmore Hotel, Kennedy Plaza, Providence, Rhode Island.

Persons formally invited to provide oral testimony are also requested to submit written copies of their comments at the meeting. Additonal written comments will be accepted through September 28, 1990, and should be sent to the address below.

**ADDRESSES:** Written comments should be sent to:

Wetlands Coordination Team, Room 5138, Main Interior Bldg., 1849 C Street, NW., Washington, DC 20240.

**FOR FURTHER INFORMATION CONTACT:** Barbara Wyman, Public Meeting Coordinator, Wetlands Coordination Team, (202) 208–4148.

**SUPPLEMENTARY INFORMATION:** President Bush has made the protection of our nation's wetlands a major priority in his environmental program. In an address to the Ducks Unlimited Sixth International Waterfowl Symposium a year ago President said, "It's time to stand the history of wetlands destruction on its head."

Earlier this year the President directed the Domestic Policy Council Task Force on Wetlands to solicit and receive public input on appropriate strategies for working toward the national goal of "no net loss." The Task Force includes representatives from: The White House Offices of Cabinet Affairs, Policy Development, and Management and Budget; the Departments of Agriculture, Commerce, Defense, Energy, Housing and Urban Development, Interior, Justice, and Transportation; the Environmental Protection Agency; and the Council on Environmental Quality. The Chairman of the Task Force is Teresa Gorman, Special Assistant to the President for Policy Development.

The Task Force is charged with providing recommendations on wetland policy to the Domestic Policy Council. The Task Force review of wetland policy will consider recommendations for revisions in existing Presidential Executive Orders on wetland protection and floodplain management. For example, Executive Order No. 11990 on the Protection of Wetlands directs Federal agencies to minimize the loss of wetlands but does not address the broader issue of working toward the achievement of "no net loss." The Task Force will also examine other methods to work toward "no net loss" of wetlands, including regulatory and non-regulatory approaches such as market-based incentives. Additionally, the Task Force will consider how the aggressive pursuit of the "no net loss" goal may affect farmers, public works projects, businesses and private landowners. To all these ends, this notice solicits public suggestions, ideas and input.

Wetlands have emerged in recent decades as areas of environmental interest because scientific studies in a range of disciplines have demonstrated these wet-soil and shallow-water areas to be important producers of commercially valuable shellfish and finfish; and essential habitat to hundreds of species of migrating birds, as well as many federally and state-listed threatened and endangered species of plants and animals. Additionally, wetlands are often useful in recreation, erosion control, floodwater retention, and groundwater recharge, and in some situations have been shown to be valuable in reducing pollutants in aquatic ecosystems.

In the public meetings panel presentations will be made by representatives of state and local governments and the private sector, including wetland user interests, conservation groups, and technical wetland experts. These presentations will be followed by an "open mike" period during which comments will be accepted from members of the audience regarding appropriate strategies for working toward the "no net loss" goal. Those wishing to provide comments during the "open mike" session will be asked to sign up prior to that part of the meeting so that all who wish to speak may be accommodated. Each meeting will attempt to reflect the variations in wetland types and wetland issues around the country.

The public is also encouraged to submit written comments for the record. All public comments will be summarized and provided to the Task Force for consideration in formulating its policy recommendations. The public comment period will close on September 28, 1990. Those making written comment are asked to focus their comments on suggestions, ideas and input on ways to pursue the goal of "no net loss" of wetlands.

Because of the anticipated volume of individual public comments and in light of time limitations, respondents are advised that other wetland topics or issues unrelated to achieving the goal of "no net loss" of wetlands may not be addressed as part of the Task Force process. Specific questions or requests for materials and/or information relating to other wetland issues should be addressed to the appropriate Department, Bureau, or Agency for response. All individuals or groups submitting written comments will receive a business reply card acknowledging their input, but individualized and substantive responsives will not be provided.

Respondents may wish to consider the following aspects of the "no net loss" goal in their comments:

- What should be the appropriate Federal, state and local government roles in working toward the national goal of "no net loss" of wetlands?
- What regulatory and non-regulatory mechanisms now in place offer the best and most effective means of helping achieve the goal?
- What new or revised regulatory and non-regulatory approaches, including market-based incentives, should be considered?
- How effective are current Federal, state and local laws in protecting wetlands?
- At what level should the "no net loss" goal be applied—on an individual property basis, locally within the state or region, or at the national level?
- To what extent can wetlands effectively be created or restored? What tools or approaches should be used to ensure that creation or restoration projects are successful, especially over the long term?
- What role should mitigation banking play in working toward the "no net loss" goal?
- Should wetlands be indexed according to their functions and values in applying the "no net loss" goal? If so, what criteria should be used to determine the index?
- What are the potential effects of specific wetland policies on farmers, public works projects, businesses, and the environment?
- How do we balance the need to protect wetlands against the potential effects on farmers, businesses and public works projects?
- What research or data collection is necessary in working toward the "no net loss" goal?
- How should the Federal Government manage its wetlands? How should the existence of wetlands be addressed prior to disposal of Federal properties?
- What can be done to encourage public awareness of the value of wetlands?

Dated: July 19, 1990.

**Barbara A. Wyman,**

*Public Meeting Coordinator, Wetlands Coordination Team.*

[FR Doc. 90–17288 Filed 7–24–90; 8:45 am]

BILLING CODE 4310–55–M

## Bureau of Land Management

[WY-930-00-5101-09-YKKE]

### Intent to Prepare Environmental Assessment and Availability for Scoping Document for Transportation and Use of Carbon Dioxide Gas in Hartzog Draw, Johnson County, WY

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice of intent to prepare an environment assessment (EA) and availability of public scoping document for the transportation and use of carbon dioxide gas ($CO_2$) for the development of oil and gas resources in Hartzog Draw, Johnson County, in central Wyoming. The area is administered by the Bureau of Land Management (BLM) Buffalo Resource Area, Casper District, Wyoming. A third party, ENSR Consulting and Engineering, will prepare the NEPA document for the BLM.

**SUMMARY:** This notice describes the action to be analyzed in the EA, the areas which will most likely be affected, the scoping process to be used, and the locations where further information can be obtained. Should the scoping process reveal the potential for significant impacts, the EA would be converted to a Draft EIS. If an EIS is prepared, additional scoping would not be initiated. A decision to prepare an EIS would be posted in the Federal Register.

**DATES:** The BLM is mailing out scoping packets to interested groups, individuals, etc., who responded to either the Amoco $CO_2$ Projects FEIS (December 1989), or to the Bairoil/Dakota $CO_2$ Projects FEIS (February 1986). Comments and suggestions will be accepted by the BLM until Monday, September 17, 1990. Because of previous NEPA analyses on the region, the BLM does not intend to conduct any public meetings at this time.

**ADDRESSES:** Comments, suggestions, or requests for the scoping packet should be sent to: Mr. Glen Nebeker, Casper BLM District Office, 1701 East "E" Street, Casper, Wyoming 82601, (307) 261-7600.

**FOR FURTHER INFORMATION CONTACT:** Information and materials providing a description of the proposal and previous Environmental Impact Statements, which have studied the area, are available for review at the above listed office or at the following locations:

BLM Wyoming State Office, Fourth Floor Public Room, Lea Bldg., 2515 Warren Avenue, Cheyenne, Wy. 820032
Platte Resource Area, 815 Connie, Mills, Wy. 82644, Phone: (307) 261-7500
Buffalo Resource Area, 189 North Cedar, Buffalo, Wy. 82834, Phone: (307) 684-5586
Lander Resource Area, South Highway US 287, Lander, Wy. 82520, Phone: (307) 332-7822

**SUPPLEMENTARY INFORMATION:** The purpose of the Environmental Assessment is to address the reactivation of Exxon's Bairoil/Dakota $CO_2$ Projects. A FEIS and Record of Decision was completed and filed with EPA on these projects in February 1986. The entire pipeline project, from MP 26 on the Rangely Pipeline, in southwestern Wyoming, to Tioga, North Dakota, has been studied in a DEIS/FEIS and R/W routes were approved in a Record of Decision (ROD) issued February 1986.

However, only the section from Opal, Wyoming, to Bairoil, Wyoming, was approved for construction by BLM. That portion of the line is now in operation.

Exxon has informed BLM that they are now considering constructing the next section of the line from the Bairoil takeoff point (north of Rawlins, Wyoming), to Hartzog Draw, near Sussex, Wyoming (about 55 miles north of Casper, Wyoming).

BLM believes that an Environmental Assessment is sufficient for the purposes of analyzing the environmental effects of this proposal because most of the proposed route has already been analyzed in the Bairoil/Dakota $CO_2$ Projects Draft and Final EISs. In addition, BLM's Buffalo Resource Area recently completed the coalbed methane EA (April 1990), which did not indicate any significant changes, which would affect the regional scenario addressed in the original Bairoil/Dakata FEIS. The other major project in the region, which could affect the human environment discussed in the Bairoil/Dakata FEIS is the Amoco $CO_2$ Projects FEIS.

Exxon Company, USA, Exxon Pipeline, and numerous other interested parties have submitted an application to BLM to obtain a right-of-way for construction and operation of a $CO_2$ pipeline from MP-112 near Bairoil, Wyoming to about MP-268, near Sussex, Wyoming, and for constructing ancillary facilities for enhanced oil recovery (EOR) purposes in the Hartzog Draw field. The Hartzog Draw EOR project includes well field facilities, a gas reinjection plant, and possibly a gas separation plant. The purpose of the projects is to deliver $CO_2$ gas to the Hartzog Draw oil field for use in the enhanced oil recovery (EOR) process. The $CO_2$ gas will be delivered to the field via a 20" pipeline, which will be connected to the existing Bairoil Exxon Pipeline near Bairoil, Wyoming.

The field facilities will include the gas reinjection plant, and a possible gas separation plant if commercial quantities of methane gas (sales gas) are encountered. Otherwise, the gas will be reinjected into the formations from which they were derived.

The EA will analyze the site-specific and cumulative effects of constructing, operating, and maintaining the proposed $CO_2$ pipeline, the Hartzog Draw plants, and all facilities associated with the proposed $CO_2$ EOR proposal. Field facilities related to production and injection will be analyzed for Hartzog Draw. Potential impacts of the EOR program and $CO_2$ supply to health and safety and air quality will be examined. The oil field facilities cannot be specifically located until the program is underway and the success of the first few injection or producing wells can be analyzed. Ongoing well field NEPA compliance will be done for site-specific well field activities by BLM's Buffalo RA.

BLM and any cooperating agencies will consider the concerns expressed by the public and by Federal, State, and local agencies during the public scoping process and when analyzing potential impacts. The level of detail will be proportional to the level of anticipated impacts. The No Action Alternative will be analyzed. Other alternatives or possible route alignments will be considered an analyzed based upon public comment or suggestions received during the scoping process.

Dated: July 13, 1990.

**F. William Eikenberry,**

*Associate State Director, Wyoming.*

[FR Doc. 90-17307 Filed 7-24-90; 8:45 am]

BILLING CODE 4310-22-M

## Bureau of Land Management (BLM)

[AZA-23415]

### Mineral Interest Applications: Arizona

**ACTION:** Notice of receipt of coveyance of mineral interest application.

Notice is hereby given that pursuant to section 209 of the Act of October 21, 1976, 90 Stat. 2757, Carlow Company, Inc. has applied for conveyance of the mineral estate described as follows:

**Gila and Salt River Meridian, Arizona**

T. 20 S., R. 9 E.,
Sec. 25, N½NE¼, SE¼NE¼.
T. 20 S., R. 10 E.,
Sec. 13, W½;
Sec. 14, N½, SW¼, N½SE¼, SW¼SE¼;
Sec. 15, NE¼, N½NW¼;
Sec. 23, N½, W½SW¼, SE¼SW¼, SE¼;
Sec. 24, N½NW¼, S½SW¼;
Sec. 28, SW¼SW¼;
Sec. 29, all;

Sec. 30, lots 1, 2, 3, 4, 10, 11, E½;
Sec. 32, all;
Sec. 36, E½.
Containing approximately 4,219.90 acres, more or less.

The mineral interest will be conveyed in whole or in part upon favorable mineral examination.

The purpose is to allow consolidation of surface and subsurface ownership for the lands described above, where there are no known mineral values or in those instances where the reservation of ownership of the mineral interest in the United States interferes with or precludes appropriate non-mineral development of the lands and such development would be a more beneficial use of the lands than its mineral development.

Additional information concerning this application may be obtained from the Area Manager, Phoenix Resource Area, Phoenix District Office, 2015 West Deer Valley Road, Phoenix, Arizona 85027.

Upon publication of this notice in the **Federal Register**, the mineral interests described above will be segregated to the extent that they will not be open to appropriation under the public land laws, including the mining laws. The segregative effect of the application shall terminate either upon issuance of a patent or other document of conveyance of such mineral interests, upon final rejection of the application or two years from published date, whichever occurs first.

Dated: July 17, 1990.

**Henri R. Bisson,**

*District Manager.*

[FR Doc. 90-17310 Filed 7-24-90; 8:45 am]

BILLING CODE 4310-32-M

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**[NM-910-GPO-409; NM NM 71549]**

## Proposed Reinstatement of Terminated Oil and Gas Lease; New Mexico

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice.

**SUMMARY:** Under the provisions of 43 CFR 3108.2-3, Estate of Jack B. Neilson, petitioned for reinstatement of oil and gas lease NM NM 71549, covering the following described land located in Eddy County, New Mexico:

T. 22 S., R. 22 E.,
Sec. 22: E½SW¼;
Sec. 27: W½.
Containing 400.00 acres.

It has been shown to my satisfaction that failure to make timely payment of rental was due to inadvertence.

No valid lease has been issued affecting the lands. Payment of back rentals and administrative cost of $500.00 has been paid. Future rentals shall be at the rate of $5.00 per acre per year and royalties shall be at the rate of 16⅔ percent. Reimbursement for cost of the publication of this notice shall be paid by the lessee.

Reinstatement of the lease will be effective as of the date of termination, April 1, 1990.

Dated: July 16, 1990.

**Dolores L. Vigil,**

*Chief, Adjudication Section.*

[FR Doc. 90-17289 Filed 7-24-90; 8:45 am]

BILLING CODE 4310-FB-M

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**[UT-060-00-4211-15; UTU-59975]**

## Realty Actions; Sales, Leases, etc.; Utah.

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice of realty action, UTU-59975, competitive sale of public land in Emery County, Utah.

**SUMMARY:** Notice is given that the following described parcel of public land has been examined, and through the development of local land-use planning decisions based upon public input, resource considerations, regulations and Bureau policies, has been found suitable for disposal by sale pursuant to section 203 of the Federal Land Policy and Managment Act of 1976 (FLPMA) (90 Stat. 2750; 43 U.S.C. 1713) using competitive sale procedures (43 CFR 2711.3-1). The parcel is described as: Salt Lake Meridian, Utah, T. 18 S., R. 9 E., section 17, SE4NW4 and contains 40.0 acres. The sale will be at no less than the appraised fair market value of $5,200.00. Bids at less than such value will be rejected as required by FLPMA.

The sale involves a parcel of land which is difficult and uneconomical to manage as public land and is not suitable for management by another Federal department or agency.

Publication of this notice in the **Federal Register** segregates the public land from the operation of the public land laws and the mining laws. The segregative effect will end upon issuance of a patent, or two hundred seventy (270) days from the date of the publication, whichever occurs first.

**The terms and conditions applicable to the sale are:**

1. All minerals, including oil and gas, shall be reserved to the United States, together with the right to prospect for, mine, and remove the minerals.

2. A right-of-way will be reserved for ditches and canals constructed by the authority of the United States (Act of August 30, 1980, 26 Stat. 391; 43 U.S.C. 945).

3. The sale of land will be subject to all valid existing rights and reservations of record. Existing rights and reservations of record include, but are not limited to, Federal oil and gas lease UTU-64025; rights-of-way UTU-65035 (county road), UTU-52408 (buried telephone line), and UTU-66126 (access road); and temporary use permit UTU-66127 (fence).

Sale Procedures; Sealed bids would be accepted at the San Rafael Resource Area Office, 900 North 700 East, Price, Utah 84501 during regular business hours, 7:45 a.m. to 4:30 p.m., MDT, until September 27, 1990. Bid envelopes must be marked on the right front corner with "Bid for Public Sale," sale case number (UTU-59975), and sale date (September 28, 1990). Bids must be at not less than the appraised fair market value specified in this notice. Each sealed bid must be accompanied by a certified check, postal money order, or cashier's check made payable to Department of the Intrior-BLM for not less than 10 percent of the amount bid. A statement as to the amount of the full bid shall be enclosed.

The successful bidder shall submit the remainder of the full purchase price prior to the expiration of one hundred eighty (180) days from date of the sale. The land will be offered for sale at 10 a.m. MDT on September 28, 1990, at the San Rafael Resource Area Office. If the land is not sold on the sale date, it will remain for sale over the counter until sold or withdrawn from the market.

*Bidder Qualifications:* Bidders must be U.S. citizens, 18 years of age or more; a State and State instrumentality authorized to hold property; a corporation authorized to hold property; or a corporation authorized to own real estate in the State of Utah.

**Bid Standards:** The BLM reserves the right to accept or reject any and all offers or withdraw the land from sale if, in the opinion of the Authorized Officer, consummation of the sale woud not be fully consistent with section 203(g) of FLPMA or other applicable laws.

**DATES:** For a period of forth-five (45) days from the date of publication of this notice in the **Federal Register**, interested parties may submit comments to the Moab District Manager, Bureau of Land Management, P.O. Box 970, Moab, Utah 84532. Objections will be reviewed by the Utah State Director who may sustain, vacate, or modify this realty action. In the absence of any objections,

this realty action will become the final determination of the Department of the Interior.

**SUPPLEMENTARY INFORMATION:** Additional information concerning the lands and the terms and conditions of the sale may be obtained from Laurelle Hughes, Area Realty Specialist, San Rafael Resource Area, 900 North 700 East, Price, Utah 84501, (801) 637–4584, or from Brad Groesbeck, District Realty Specialist, Moab District Office, 82 East Dogwood, P.O. Box 970, Moab, Utah 84532, (801) 259–6111.

Dated: July 16, 1990.

**Kenneth V. Rhea,**

*Acting District Manager.*

[FR Doc. 90–17308 Filed 7–24–90; 8:45 am]

BILLING CODE 4310–DQ–M

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**[ID–943–00–4212–13; IDI–23537]**

## Issuance of Land Exchange Conveyance Document; Idaho

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Exchange of public and private lands.

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**SUMMARY:** The United States has issued an exchange conveyance document to Arthur Bnesa and Barbara A. Gnesa, of Gooding, Idaho 83330, for the following described lands under section 206 of the Federal Land Policy and Management Act of 1976:

**Boise Meridian**

T. 6 S., R. 15 E.,
Sec. 11, SE¼;
Sec. 13, W½NW¼;
Sec. 14, NE¼.

Comprising 400.00 acres of public land.

In exchange for these lands, the United States acquired the following described lands:

**Boise Meridian**

T. 6 S., R. 16 E.,
Sec. 16, S½.

Comprising 320.00 acres of private land.

The purpose of the exchange was to acquire non-federal land which has high public value for management efficiency. The public interest was well served through completion of this exchange.

The values of the federal land and the non-federal land in the exchange were each appraised at $19,320.

Dated: July 13, 1990.

**Duane E. Olsen,**

*Acting, Deputy State Director for Operations.*

[FR Doc. 90–17274 Filed 7–24–90; 8:45 am]

BILLING CODE 4310–GG–M

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## National Park Service

## National Register of Historic Places; Notification of Pending Nominations

Nominations for the following properties being considered for listing in the National Register were received by the National Park Service before July 14, 1990. Pursuant to § 60.13 of 36 CFR part 60 written comments concerning the significance of these properties under the National Register criteria for evaluation may be forwarded to the National Register, National Park Service, P.O. Box 37127, Washington, DC 20013–7127. Written comments should be submitted by August 9, 1990.

**Marilyn W. Nickels,**

*Acting Chief of Registration, National Register.*

**ARKANSAS**

**Union County**

*Smith, Joel, House,* Jct. of US 167 and Co. Rd. 5, El Dorado, 90001220

**FLORIDA**

**Broward County**

*Cap's Place,* 2980 NE. 31st Ave., Lighthouse Point, 90001227

**IDAHO**

**Twin Falls County**

*Bickel School,* 607 Second Ave. E., Twin Falls, 90001233
*Kimberly High School, 141 Center St. W., Twin Falls, 90001229*
*Lincoln School,* 238 Seventh St., Twin Falls, 90001218

**IOWA**

**Calhoun County**

*Chicago and North Western Office Building/ Passenger Depot—Lake City (Lake City Iowa MPS),* 401 Front St., Lake City, 90001205
*Lake City Community Memorial Building (Lake City Iowa MPS),* 118 E. Washington St., Lake City, 90001210
*Lake City Public Library (Lake City Iowa MPS),* 120 N. Illinois St., Lake City, 90001209
*Lake City Water Standpipe (Lake City Iowa MPS),* 100 Block of W. Washington St., Lake City, 90001211
*Smith Farmhouse (Lake City Iowa MPS),* Jct. of Rainbow Rd. S. and Monroe St., Lake City, 90001206
*Smith, Gen. Cass and Belle, House (Lake City Iowa MPS),* 500 W. Main St., Lake City 90001207
*Smith, Peter and Mary, House (Lake City Iowa MPS),* 304 W. Main St., Lake City, 90001208

**Monona County**

*Trinity Memorial Episcopal Church,* 302 S. Seventh St., Mapleton, 90001217
*Whiting, Mewell A., House,* 1106 Iowa Ave., Onawa, 90001216

**LOUISIANA**

**Orleans Parish**

*Upper Central Business District,* Roughly bounded by O'Keefe, Poydras, Convention Center Blvd., and the Expressway (B.R. 90), New Orleans, 90001231

**MARYLAND**

**Frederick County**

*Cullen, Victor, Center, Old Administration Building,* Victor Cullen Center Campus, Sabillasville, 90001228

**MICHIGAN**

**Kalamazoo County**

*Western State Normal School Historic District (Kalamazoo Multiple Resources),* Roughly bounded by Stadium Dr., Oliver St., and Davis St., Kalamazoo, 90001230

**Oakland County**

*Detriot Zoological Park,* 8450 W. Ten Mile Rd., Huntington Woods/Royal Oak, 90001226

**Ottawa County**

*Holland Historic District (Boundary Increase),* Roughly bounded by River Ave., Pine Ave., 16th St., 14th St., Columbia Ave., 13th St., Central Ave., and 10th St., Holland, 90001234

**MISSISSIPPI**

**Copiah County**

*Cherry Grove,* Old Hwy. 51 M. of jct. with MS 27, Crystal Springs vicinity, 90001224

**Monroe County**

*Thompson, James Young, House,* Old Cotton Gin Rd., ¼ Mi. N of US 278, Amory vicinity, 90001223

**Union County**

*Union County Courthouse,* Bankhead St. Between Court and Camp Aves., New Albany, 90001222

**MONTANA**

**Big Horn County**

*St. Xavier Mission Church and Rectory,* On Big Horn River in the Crow Indian Reservation, St. Xavier, 90001214

**Cascade County**

*Ford, Lee M., House,* 401 4th Ave. N., Great Falls, 90001215

**Flathead County**

*Taylor, Ray E., House,* 900 S. Baker Ave., Whitefish, 90001204

**Gallatin County**

*Emerson School,* 11 S. Grand Ave., Bozeman, 90001212

**Missoula County**

*Laird's Lodge Historic District,* N. end of Lindbergh Lake at end of Lindbergh Lake Rd., Seeley Lake, 90001213

NEW JERSEY

Hunterdon County

*Stanton Historic Rural District*, Jct. of Stanton and Mountain Rds., between Round and Cushetunk Mtns., Stanton, 90001225

Monmouth County

*Water Hitch Club Casino*, Jct. of E. Twin Rd. and W. Twin Rd., Highlands, 90001219

TEXAS

Travis County

*McCauley, Robert H. and Edith Ethel, House (Hyde Part MPS)*, 4415 Ave. A, Austin, 90001236

*Robbins, Alice H., House (Hyde Park MPS)*, 4311 Ave. A, Austin, 90001235

WISCONSIN

Found Du Lac County

*Chicago and Northwestern Railroad Depot*, 182 Forest Ave., Fond du Lac, 90001232

[FR Doc. 90-17266 Filed 7-24-90; 8:45 am]

BILING CODE 4310-70-M

## INTERNATIONAL TRADE COMMISSION

**[Investigation No. 337-TA-307]**

### Commission Decision not to Review an Initial Determination Terminating the Investigation for Lack of an Indispensible Party; Certain Catalyst Components and Catalysts for the Polymerization of Olefins

**AGENCY:** U.S. International Trade Commission.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the U.S. International Trade Commission has determined not to review an initial determination (ID) issued by the presiding administrative law judge (ALJ) in the above-captioned investigation terminating the investigation for lack of an indispensible party.

**FOR FURTHER INFORMATION CONTACT:** George Thompson, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436, telephone 202-252-1090. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-252-1810.

**SUPPLEMENTARY INFORMATION:** On March 22, 1990, the presiding ALJ issued an order (Order No. 12) concerning respondent Fina Oil and Chemical Company's (Fina) motion to terminate the investigation because complainants Himont, Inc. and Himont U.S.A., Inc. (collectively Himont) lack standing independently to assert the patent rights at issue in the investigation. The ALJ found that Montedison, S.p.A. (Montedison), corporate parent of Himont and owner of the patents in issue, was an indispensible party, and that the investigation would be terminated unless Montedison joined as a party.

On April 11, 1990, in response to a motion by Himont and pursuant to Commission interim rule 210.70, 19 CFR 210.70, the ALJ certified for interlocutory appeal to the Commission the question of Himont's standing under section 337 independently to assert the patent rights at issue. The Commission determined to grant the application for interlocutory appeal and determined that under section 337, Himont does not have standing independently to assert the alleged patent rights in this investigation, and that unless Montedison joins the investigation, the investigation must be terminated. Accordingly, the Commission affirmed Order No. 12. 55 FR 23987 (June 13, 1990).

Montedison did not join this investigation. On June 25, 1990, the presiding ALJ issued an ID (Order No. 23) terminating the investigation. No petitions for review or government agency comments were received.

This action is taken under the authority of section 337 of the Tariff Act of 1930 (19 U.S.C. 1337) and Commission interim rules 210.51(a), 210.51(d), and 210.53(h) (19 CFR 210.51(a), 210.51(d), and 210.53(h)).

By order of the Commission.

Issued: July 16, 1990.

**Kenneth R. Mason,**

*Secretary.*

[FR Doc. 90-17343 Filed 7-24-90; 8:45 am]

BILLING CODE 7020-02-M

**[Investigation No. 731-TA-445 (Final)]**

### Industrial Nitrocellulose From Yugoslavia

**AGENCY:** United States International Trade Commission.

**ACTION:** Revised schedule for the subject investigation.

**EFFECTIVE DATE:** July 5, 1990.

**FOR FURTHER INFORMATION CONTACT:** Tedford Briggs (202-252-1181), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals may obtain information on this matter by contactng the Commission's TDD terminal on 202-252-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-252-1000.

**SUPPLEMENTARY INFORMATION:** Effective April 19, 1990, the Commission instituted the subject investigation and established a schedule for its conduct (55 FR 19367, May 9, 1990). The Commission held a public hearing in Washington, DC, on May 29, 1990. Subsequent to the Commission's hearing, the Department of Commerce extended the date for its final determination in the investigation from July 2, 1990, to September 6, 1990. The Commission, therefore, is revising its schedule in the investigation to conform with Commerce's new schedule.

The Commission's new schedule for the investigation is as follows: the deadline for filing posthearing briefs is September 20, 1990, and the deadline for Parties to file additional written comments on business proprietary information is September 25, 1990.

For further information concerning this investigation see the Commission's notice of investigation cited above and the Commission's Rules of Practice and Procedure, part 207, subparts A and C (19 CFR part 207), and part 201, subparts A through E (19 CFR part 201).

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to section 207.20 of the Commission's rules (19 CFR 207.20).

Issued: July 16, 1990.

By order of the Commission.

**Kenneth R. Mason,**

*Secretary.*

[FR Doc. 90-17344 Filed 7-24-90; 8:45 am]

BILLING CODE 7020-02-M

**[Investigation No. 731-TA-455 (Final)]**

### Institution; Certain Laser Light-Scattering Instruments and Parts Thereof From Japan

**AGENCY:** United States International Trade Commission.

**ACTION:** Institution of a final antidumping investigation and scheduling of a hearing to be held in connection with the investigation.

**SUMMARY:** The Commission hereby gives notice of the institution of final antidumping investigation No. 731-TA-455 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673(b)) (the act) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by

reason of imports from Japan of certain laser light-scattering instruments and parts thereof,[1] provided for in subheadings 9027.30.40 and 9027.90.40 of the Harmonized Tariff Schedule of the United States (previously under item 712.49 of the former Tariff Schedules of the United States), that have been found by the Department of Commerce, in a preliminary determination, to be sold in the United States at less than fair value (LTFV). Unless the investigation is extended, Commerce will make its final LTFV determination on or before September 12, 1990 and the Commission will make its final injury determination by November 2, 1990 (see sections 735(a) and 735(b) of the act (19 U.S.C. 1673d(a) and 1673d(b))).

For further information concerning the conduct of this investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A and C (19 CFR part 207), and part 201, subparts A through E (19 CFR part 201).

**EFFECTIVE DATE:** July 6, 1990.

**FOR FURTHER INFORMATION CONTACT:** Elizabeth Haines (202–252–1200), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202–252–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–252–1000.

**SUPPLEMENTARY INFORMATION:**

### Background

This investigation is being instituted as a result of an affirmative preliminary determination by the Department of Commerce that imports of certain laser light-scattering instruments and parts thereof from Japan are being sold in the United States at less than fair value within the meaning of section 733 of the act (19 U.S.C. 1673b). The investigation was requested in a petition filed on March 19, 1990 by Wyatt Technology Corp., Santa Barbara, CA. In response to that petition the Commission conducted a preliminary antidumping investigation and, on the basis of information developed during the course of that investigation, determined that there was a reasonable indication that an industry in the United States was threatened with material injury by reason of imports of the subject merchandise (55 FR 20315, May 16, 1990).

### Participation in the Investigation

Persons wishing to participate in this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than twenty-one (21) days after the publication of this notice in the **Federal Register**. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

### Public Service List

Pursuant to section 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance. In accordance with §§ 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each public document filed by a party to the investigation must be served on all other parties to the investigation (as identified by the public service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

### Limited Disclosure of Business Proprietary Information Under a Protective Order and Business Proprietary Information Service List

Pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)), the Secretary will make available business proprietary information gathered in this final investigation to authorized applicants under a protective order, provided that the application be made not later than twenty-one (21) days after the publication of this notice in the **Federal Register**. A separate service list will be maintained by the Secretary for those parties authorized to receive business proprietary information under a protective order. The Secretary will not accept any submission by parties containing business proprietary information without a certificate of service indicating that it has been served on all the parties that are authorized to receive such information under a protective order.

### Staff Report

The prehearing staff report in this investigation will be placed in the nonpublic record on September 7, 1990, and a public version will be issued thereafter, pursuant to § 207.21 of the Commission's rules (19 CFR 207.21).

### Hearing

The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on September 25, 1990 at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business (5:15 p.m.) on September 17, 1990. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on September 18, 1990, at the U.S. International Trade Commission Building. Pursuant to § 207.22 of the Commission's rules (19 CFR 207.22) each party is encouraged to submit a prehearing brief to the Commission. The deadline for filing prehearing briefs is September 19, 1990. If prehearing briefs contain business proprietary information, a nonbusiness proprietary version is due September 20, 1990.

Testimony at the public hearing is governed by § 207.23 of the Commission's rules (19 CFR 207.23). This rule requires that testimony be limited to a nonbusiness proprietary summary and analysis of material contained in prehearing briefs and to information not available at the time the prehearing brief was submitted. Any written materials submitted at the hearing must be filed in accordance with the procedures described below and any business proprietary materials must be submitted at least three (3) working days prior to the hearing (see § 201.6(b)(2) of the Commission's rules (19 CFR 201.6(b)(2))).

### Written Submissions

Prehearing briefs submitted by parties must conform with the provisions of § 207.22 of the Commission's rules (19 CFR 207.22) and should include all legal arguments, economic analyses, and

[1] The products covered by this investigation are laser light-scattering instruments and parts thereof from Japan that have classical measurement capabilities, whether or not also capable of dynamic measurements. The following parts are included in the scope of the investigation when they are manufactured for use only in a LLSI: Scanning photomultiplier assemblies, immersion baths, sample-containing structures, electronic signal-processing boards, molecular characterization software, preamplifier/discriminator circuitry, and optical benches.

factual materials relevant to the public hearing. Posthearing briefs submitted by parties must conform with the provisions of § 207.24 (19 CFR 207.24) and must be submitted not later than the close of business on October 2, 1990. If posthearing briefs contain business proprietary information, a nonbusiness proprietary version is due October 3, 1990. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before October 2, 1990.

A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the Commission's rules (19 CFR 201.8). All written submissions except for business proprietary data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any information for which business proprietary treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Business Proprietary Information." Business proprietary submissions and requests for business proprietary treatment must conform with the requirements of §§ 201.6 and 207.7 of the Commission's rules (19 CFR 201.6 and 207.7).

Parties which obtain disclosure of business proprietary information pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)) may comment on such information in their prehearing and posthearing briefs, and may also file additional written comments on such information no later than October 5, 1990. Such additional comments must be limited to comments on business proprietary information received in or after the posthearing briefs. A nonbusiness proprietary version of such additional comments is due October 9, 1990.

Authority: This investigation is being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.20 of the Commission's rules (19 CFR 207.20).

By order of the Commission.

Issued: July 18, 1990.

**Kenneth R. Mason,**

*Secretary.*

[FR Doc. 90–17340 Filed 7–24–90; 8:45 am]

BILLING CODE 7020–02–M

## INTERSTATE COMMERCE COMMISSION

**[Docket No. AB–167 (Sub–No. 99N]**

### Conrail Abandonment Between Lansdowne and Clinton, NJ

July 19, 1990.

Notice is hereby given pursuant to section 308(e) of the Regional Rail Reorganization Act of 1973 that the Commission has issued a certificate authorizing the Consolidated Rail Corporation to abandon its rail line between milepost 57.7 and milepost 57.9 in the County of Hunterdon, NJ, a total distance of 0.2 miles effective on June 29, 1990.

The net liquidation value of this line is $23,000. If, within 120 days from the date of this publication, Conrail receives a *bona fide* purchase offer for 75 percent of the net liquidation value of this line, it shall sell such line and the Commission shall, unless the parties otherwise agree, establish an equitable division of joint rates for through routes over such lines.

**Sidney L. Strickland, Jr.,**

*Secretary.*

[FR Doc. 90–17364 Filed 7–24–90; 8:45 am]

BILLING CODE 7035–01–M

**[Finance Docket No. 31672]**

### Louisiana & Arkansas Railway Co.—Trackage Rights Exemption—Midsouth Corp. Exemption

MidSouth Corporation (MSC) has agreed to grant trackage rights to Louisiana & Arkansas Railway Company (L&A) over 1.4 miles of MSC track, including the bridge over the Red River at Bossier City, LA. The trackage rights will also allow L&A to cross the MSC bridge over the Red River at Shreveport, LA. The trackage rights were to have become effective on July 12, 1990.

This notice is filed under 49 CFR 1180.2(d)(7). Petitions to revoke the exemption under 49 U.S.C. 10505(d) may be filed at any time. The filing of a petition to revoke will not stay the transaction. Pleadings must be filed with the Commission and served on: W.J. Wochner, Louisiana & Arkansas Railway Company, 114 West 11th Street, Kansas City, MO 64105.

As a condition to the use of this exemption, any employees affected by the trackage rights will be protected pursuant to *Norfolk and Western Ry. Co.—Trackage Rights—BN*, 354 ICC 605 (1978), as modified in *Mendocino Coast Ry., Inc—Lease and Operate*, 360 I.C.C. 653 (1980).

Dated: July 18, 1990.

By the Commission, David M. Konschnik, Director, Office of Proceedings.

**Sidney L. Strickland, Jr.,**

*Secretary.*

[FR Doc. 90–17362 Filed 7–24–90; 8:45 am]

BILLING CODE 7035–01–M

## JUDICIAL CONFERENCE OF THE UNITED STATES

### Meetings of the Judicial Conference Advisory Committee on Civil Rules

**AGENCY:** Judicial Conference of the United States.

**ACTION:** Notice of open meeting.

**SUMMARY:** There will be a three-day meeting of the Advisory Committee on Civil Rules to discuss Rule 11 of the Federal Rules of Civil Procedures. The meeting will be open to public observation, and will commence each day at 9 a.m.

**DATES:** November 29–30 and December 1, 1990.

**ADDRESSES:** Washington Duke Inn & Golf Club, Duke University room, 3001 Cameron Blvd., Durham, North Carolina 27706.

**FOR FURTHER INFORMATION CONTACT:** James E. Macklin, Jr., Secretary, Committee on Rules of Practice and Procedure, Washington, DC 20544, telephone (202) 633–6021.

Dated: July 17, 1990.

**James E. Macklin, Jr.,**

*Secretary, Committee on Rules of Practice and Procedure.*

[FR Doc. 90–17318 Filed 7–24–90; 8:45 am]

BILLING CODE 2210–01–M

### Meetings of the Judicial Conference Advisory Committee on Criminal Rules

**AGENCY:** Judicial Conference of the United States.

**SUBAGENCY:** Committee on rules of practice and procedure.

**ACTION:** Notice of open meeting.

**SUMMARY:** There will be a two-day meeting of the Advisory Committee on Criminal Rules which has proposed amendments to the Criminal Rules, and an amendment to the Rules of Evidence. The rules proposed to be amended are Criminal rules 16(a)(1)(A), 24(b), and 35(b), and rule 404(b) of the Federal Rules of Evidence. The meeting will be open to public observation but not participation. The meetings will commence each day at 9 a.m.

**DATES:** November 15–16, 1990.

**ADDRESSES:** Administrative Office of the U.S. Courts, 811 Vermont Avenue, NW., room 638, Washington, DC 20544.

**FOR FURTHER INFORMATION CONTACT:** James E. Macklin, Jr., Secretary, Committee on Rules of Practice and Procedure, Washington, DC 20544, telephone (202) 633–6021.

Dated: July 17, 1990.

**James E. Macklin, Jr.,**

*Secretary, Committee on Rules of Practice and Procedure.*

[FR Doc. 90–17319 Filed 7–24–90; 8:45 am]

BILLING CODE 2210–01–M

## DEPARTMENT OF JUSTICE

### Lodging of Consent Decree; U.S. v. Boston and Maine Corp. et al.

In accordance with Departmental policy, 28 CFR 50.7, notice is hereby given that on July 9, 1990, a proposed Consent Decree in *United States* v. *Boston and Maine Corporation, et al.*, Civil No. 90–11710 WD was lodged with the United States District Court for the District of Massachusetts resolving the matter as to all defendants. The proposed Consent Decree concerns the recovery of costs incurred through January 1990, for the site-wide costs to investigate the release and threatened release of hazardous substances at the Iron Horse Park Site in North Billerica, Massachusetts pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, as amended. The proposed Consent Decree also concerns the recovery of costs incurred and costs to be incurred to respond to the release and threatened release of hazardous substances at the Lagoons operable unit at the Iron Horse Park Site and the implementation of the remedy at the Lagoons. Under the terms of the Consent Decree, defendants Boston and Maine Corporation, Massachusetts Bay Transportation Authority, General Latex and Chemical Corporation, Suffolk Services, Inc., Graypond Realty Corporation, Middlesex Disposal Service, Inc. and Manville Sales Corporation will pay $1.7 million towards costs incurred at the Site for the Lagoons and site-wide investigations through January 1990. Boston and Maine Corporation also will implement the remedy selected for the Lagoons operable unit and pay oversight costs of the United States up to $180,000.

The Department of Justice will receive for a period of thirty (30) days from the date of this publication comments relating to the proposed Consent Decree. Comments should be addressed to the Assistant Attorney General of the Environment and Natural Resources Division, Department of Justice, Washington, DC 20530, and should refer to Iron Horse Park, D.J. Ref. 90–11–3–90B.

The proposed Consent Decree may be examined at the Region 1 Office of the Environmental Protection Agency, J.F.K. Federal Building, Boston, Massachusetts 02203. Copies of the Consent Decree may be examined at the Environmental Enforcement Section Document Center, 1333 F Street, NW., Suite 600, Washington, DC 20044, (202) 347–7829. A copy of the proposed Consent Decree may be obtained in person or by mail from the Document Center. In requesting a copy, please refer to the referenced case and enclose a check in the amount of $21.25 (25 cents per page reproduction cost) made payable to Aspen Systems Corporation.

**George W. Van Cleve,**

*Acting Assistant Attorney General, Environment and Natural Resources Division.*

[FR Doc. 90–17273 Filed 7–24–90; 8:45 am]

BILLING CODE 4410–01–M

## NATIONAL FOUNDATION ON THE ARTS AND HUMANITIES

### Agency Information Collection Activities Under OMB Review

**AGENCY:** National Endowment for the Arts.

**ACTION:** Notice.

**SUMMARY:** The National Endowment for the Arts (NEA) has sent to the Office of Management and Budget (OMB) the following proposal for the collection of Information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

**DATES:** Comments on this information collection must be submitted by August 24, 1990.

**ADDRESSES:** Send comments to Mr. Dan Chenok, Office of Management and Budget, New Executive Office Building, 726 Jackson Place, NW., room 3002, Washington, DC 20503; (202–395–7316). In addition, copies of such comments may be sent to Mrs. Anne C. Doyle, National Endowment for the Arts, Administrative Services Division, room 203, 1100 Pennsylvania Avenue, NW., Washington, DC 20506; (202–682–4501).

**FOR FURTHER INFORMATION CONTACT:** Mrs. Anne C. Doyle, National Endowment for the Arts, Administrative Services Division, room 23, 1100 Pennsylvania Avenue, NW., Washington, DC 20506; (202–682–5401) from whom copies of the documents are available.

**SUPPLEMENTARY INFORMATION:** The Endowment requests the extension of a currently approved collection of information. This entry is issued by the Endowment and contains the following information: (1) The title of the form; (2) how often the required information must be reported; (3) who will be required or asked to report; (4) what the form will be used for; (5) an estimate of the number of responses; (6) the average burden hours per response; (7) an estimate of the total number of hours needed to prepare the form. This entry is not subject to 44 U.S.C. 3504(h).

*Title:* FY 92 Challenge III Grant Application Guidelines.

*Frequency of Collection:* One time.

*Respondents:* State or local governments; Non-profit institutions.

*Use:* Guideline instructions and applications elicit relevant information from non-profit organizations and state or local arts agencies that apply for funding under specific Challenge III program categories. This information is necessary for the accurate, fair, and thorough consideration of competing proposals in the peer review process.

*Estimated Number of Respondents:* 150.

*Average Burden Hours per Response:* 80.

*Total Estimated Burden:* 12,000.

**Anne C. Doyle,**

*Administrative Services Division, National Endowment for the Arts.*

[FR Doc. 90–17333 Filed 7–24–90; 8:45 am]

BILLING CODE 7537–01–M

## NATIONAL SCIENCE FOUNDATION

### Research Experiences for Undergraduate Program

The National Science Foundation announces the inpending release of a revised program announcement for the Research Experiences for Undergraduates (REU) program. The following text has been excerpted from the new announcement. Information concerning the availability of the new announcement is presented in section V below.

**I. Program Description**

*A. Purpose and Scope*

One of the National Science Foundation's principal goals is to assure an adequate supply of high quality mathematicians, scientists and engineers for the future. This requires continuing efforts to attract talented students into research careers in these fields, and to help ensure that they

receive the best education possible. The undergraduate years are critical in the educational sequence, as career-choice points and as the first real opportunities for in-depth study.

There is wide-spread agreement [1] that active research experience is one of the most effective techniques for training undergraduates for careers in mathematics, science and engineering, and that too few such experiences are now available. NSF has established the Research Experiences for Undergraduates Program (REU) to help meet this need.

REU plans to provide opportunities annually to several thousand undergraduate students to participate in active mathematics, science and engineering research experiences. REU projects will involve students in meaningful ways in either ongoing research programs or research projects specially designed for this purpose.

NSF is particularly interested in increasing the participation in research of female, minority[2] and disabled students. Projects involving students who are members of these groups are particularly solicited.

Although the categories of awards that are described in this announcement are expected to include the majority of projects supported through the REU program, additional mechanisms for providing undergraduate research experiences will be considered by the NSF.

Proposals are invited for support of projects that typically will fit into two major categories: (1) REU Sites and (2) REU Supplements.

**Sites* grants will be based on independent proposals to initiate and conduct undergraduate research participation projects for a number of students appropriate to the discipline and the setting. Most REU Sites projects are expected to be within the scope of a single discipline and/or single academic department. Interdisciplinary proposals are also encouraged, but multiple discipline or multiple department proposals without a common project focus or orientation are discouraged.

**Supplements* to ongoing NSF research grants to provide research experiences for a small number of undergraduate students are also encouraged.

Site and Supplement projects may be carried out during the summer months, during the academic year, or both. The Foundation will consider requests for support of one, two or three years duration. Preproposals will not be accepted for the REU program.

*B. Eligibility Criteria and Limitations*

1. Eligible Institutions

All U.S. institutions conducting research in the disciplines normally supported by NSF are eligible to apply. Thus, proposals will be accepted from colleges and universities, from such non-academic research institutions as government or industrial laboratories, or from combinations thereof. There is no restriction on the number of proposals that may be submitted per institution.

2. Eligible Fields

The Foundation considers proposals for REU support in most of the fields of science and engineering. NSF normally will not support biomedical research with disease-related goals, including work on the etiology, diagnosis, or treatment of physical or mental disease, abnormality, or malfunction in human beings or animals. Animal models of such conditions, or the development or testing of drugs or other procedures for their treatment also generally are not eligible for support. NSF does not normally support technical assistance, pilot plant efforts, research requiring security classification, the development of products for commercial marketing, or market research for a particular product or invention.

3. Eligible Individuals

*Principal Investigator.* A single individual should be designated as Principal Investigator. This individual will be responsible for overseeing all aspects of the award. However, it is expected that additional investigators will be involved in many of these projects, particularly in projects involving development and operation of REU Sites.

*Student Participants.* Undergraduate student participants must be citizens or permanent residents of the United States and its possessions. An undergraduate student is a student who is enrolled in a degree program (part-time or full-time) leading to a bachelor's degree. Students who are transferring from one institution to another and are enrolled at neither institution during the intervening summer may participate. High school graduates who have not yet enrolled and students who have received their bachelor's degree and are no longer enrolled as undergraduates are not eligible.

4. Eligible Activities and Costs

REU award costs, expected to be typically about $5,000 per student for Sites and somewhat less for Supplements, may include stipends for students, salaries of involved faculty, relevant student housing costs, indirect costs, and a modest allowance for supplies. Student stipends for full-time summer activity should be at least $1,000 per month, for either type of award, with pro rata equivalent stipends for part-time academic year participation and part-time summer.

*C. Deadlines*

Proposals for the support of REU Sites must be postmarked no later than October 10, 1990. Award notification will be made as early as possible in the following calendar year.

Proposals for REU Supplements will be accepted at any time, and require 2–3 month's processing time. Supplement requests should be submitted as early in the fiscal year as possible. Some programs have target dates and review Supplement requests in a comparative manner. For possible target dates, contact the NSF Program Officer who was designated as the cognizant program official when the research award was made.

**II. Preparation and Submission of Proposals**

*A. REU Sites*

Funds for the establishment of REU Sites may be requested from any of NSF's disciplinary research directorates: Biological, Behavioral and Social Sciences; Computer and Information Science and Engineering; Engineering; Geosciences; and Mathematical and Physical Sciences.

Each proposal should reflect the unique combination of the proposing institution's interests and capabilities. Cooperative regional arrangements among institutions will be considered so that a project might increase the quality or availability of undergraduate research experiences.

REU Sites projects must have a well defined common focus. This is usually achieved within the scope of a single discipline or academic department, although an interdisciplinary proposal with cohesively integrated projects is encouraged. In general, multiple-discipline or multiple-department proposals without a common project focus or orientation are not encouraged.

The proposal should discuss the features of the proposed project in sufficient detail that it can be reviewed in accordance with the goals of the REU program and the criteria articulated in section III. The narrative description of the program should not exceed 15

[1] Footnotes to appear at the end of article.

double-spaced pages in length. The narrative should include a description of:

Nature of Student Activities

NSF believes undergraduate research experiences have their greatest impact in situations that lead the participants from a relatively dependent status to as independent a status as their competence warrants. In this context, proposals must present plans that will ensure the regular development of student-faculty interaction and student-student communication. Proposals should address the philosophy of the approach to undergraduate research training being taken, and should provide detailed descriptions of examples of projects in which students will become involved.

The Research Environment

The facilities and equipment available to support these undergraduate research experiences should be summarized. A tabular summary or similar indication of graduates continuing their education at the graduate level may be incorporated here.

Student Participants

Student recruitment and selection processes and criteria should include a description of the recruitment plans; if possible, the types and/or names of institutions where students will be recruited; and what effort will be made to attract underrepresented groups. A major goal of the program is to involve students in research who might not otherwise have the opportunity, particularly those from institutions where research programs are limited. This especially includes female, minority, and disabled students. For this reason, projects whose student participants include significant factions from outside the host institution, and that present convincing plans for involving underrepresented student groups will receive special consideration in the award selection process.

The number of students per project should be appropriate to the institutional setting and to the manner in which research is conducted in the discipline. However, developing collegial relationships and interactions is an important part of the project opportunity. Therefore the Foundation expects that an appropriate number of students will be involved, and proposals involving fewer than 4–6 students are discouraged.

The following items should also be included in the proposal (these items do not count as part of the 15 page narrative limit):

Budget

The proposal should include a detailed project budget and budget justification, as described in the NSF brochure, Grants for Research and Education in Science and Engineering (GRESE), NSF 83–57, rev. 5/90. Single copies of this brochure are available at no cost from the Forms and Publications Unit, phone (202) 357–7668, or via e-mail (Bitnet:pub@nsf or Internet:pubs@note.nsf.gov).

Use the NSF Form 1030 (found in GRESE) for proposal budget. As a guide to budget development, student stipends for summer projects are expected to be at least $1,000 per month with academic year stipends comparable on a pro rata basis. All student costs should be entered at line F of Form 1030. Total costs are expected to be typically about $5,000 per student. The amount of total indirect costs allowed for REU (enter at line I of form 1030) is limited to 25% of student stipends. Institutional commitment to the project should be clearly described and may include such items as faculty salaries, student housing, travel, tuition, reduced indirect costs or lab use.

An REU Site involving 10 students for 10 weeks (where travel is anticipated) might have the following budget distribution: student stipends—$25,000; student travel—$3,000; student subsistence—$7,000; materials and supplies—$1,000; indirect costs (at 25% of student stipends)—$6,250; for a total of $42,250. This distribution is meant as an example only. Budgeted amounts may be more or less than shown. Institutions may choose to absorb some of these expenses as their commitment to the REU Site. Various NSF Directorates may permit a modest allowance for other expenses (such as faculty support and recruitment of students from underrepresented minority groups and institutions where research programs are limited) or even exclude some of those listed in the example. It is advisable to check with the appropriate Directorate/Division when questions of budget are concerned (see Section IV below).

Biographical Sketches and Individual Support

A biographical sketch (not to exceed 1 page) for each of the key personnel and list of recent publications (last five years), involving and identifying undergraduate authors, should be included. An asterisk should be used to identify undergraduate students who served as co-authors. A table must be provided which summarizes each individual's current and pending research support from all sources.

**Note:** The Principal Investigator must have submitted NSF from 98A (Final Project Report) for all completed NSF funded projects.

Proposals must be postmarked by October 10, 1990 to insure inclusion in the competitive review process established for this program.

Proposals submitted in response to this program announcement should be prepared and submitted in accordance with the guidelines provided in GRESE and should also adhere to the following instructions. Fifteen copies of the proposal should be submitted. Each copy of the proposal should contain:

—the Cover Sheet (found in GRESE). Indicate clearly the NSF research directorate and/or division to which the proposal is directed on the top left box of the form. A list of these can be found in section IV. In the top right box, write "REU NSF 90–79."

—the Budget Form 1030 (found in GRESE)

—the Project Summary Form (found in Appendix I of the revised program announcement, NSF 90–79)

—the Current and Pending Support Form (found in GRESE)

—statement of prior support. If either the Principal Investigator or the Co-principal Investigator received prior support from NSF's REU Program, the proposal must include a section entitled "Results from prior NSF Support". This section must describe the earlier REU project(s) and outcome(s) in sufficient detail to permit reviewers to reach an informed conclusion regarding the value of the results achieved. The following information must be included in this summary statement:

• The NSF award number, amount, and period of support;

• Title of the project;

• A summary of the results of the completed work. (To facilitate review, this summary must not exceed—for REU—three double-spaced pages); and

• A list of publications and/or formal presentations acknowledging the NSF award (copies of such papers are not to be submitted with the proposal).

Materials required:

—15 legible copies of the complete proposal; and

—Only one (1) copy of NSF Form 1225, Information about Principal Investigator/Project Director (found in GRESE), should be sent, attached to the original signed proposal.

These materials should be submitted to:

Proposal Processing Unit, Room 223, Attention: REU, National Science Foundation, 1800 G Street, NW., Washington, DC 20550.

*B. REU Supplements*

Funding may be requested from any of NSF's directorates to supplement an ongoing NSF research grant. As with other supplement requests, these should be sent directly to the NSF Program Officer who was designated as the cognizant program official when the research award was made.

Requests for supplemental funding should be in the form of a letter, signed by both the principal investigator and the appropriate institutional official. This letter should state clearly that this is a REU Supplement request, and should articulate in some detail the form and nature of the prospective student(s)'s involvement in the research project(s). If the student(s) has not been preselected, a brief description of the selection process and criteria should be included. If the student(s) has been preselected, the grounds for selection and a brief biographical sketch of the student(s) should be included. Normally funds will be available for up to two students, but exceptions will be considered for training additional minority, physically disabled and women students.

The request letter should be accompanied by a signed budget page including information about the funds requested for student support and their proposed use. Use NSF Form 1030 (found in GRESE) for this purpose. As a guide to budget development, student stipends for summer projects are expected to be at least $1,000 per month with academic year stipends comparable on a pro rata basis. All student costs should be entered at line F of Form 1030. Total costs are expected to be typically about $5,000 per student. The amount of total indirect costs allowed for REU Supplements (enter at line I of form 1030 is limited to 25% of the student stipends. Attach the letter of request and form 1030 to the Cover Sheet (found in GRESE) and a Project Summary Form (found in Appendix I of the revised REU program announcement) and mail to the appropriate NSF Program Director.

## III. Proposal Review

Proposals will be reviewed in accordance with established Foundation procedures and the four general criteria described in GRESE.

REU Sites proposals will be examined by external merit review, involving scientists, engineers and mathematicians.

REU Supplements proposals will be reviewed internally by NSF program staff.

The same general review criteria will be applied to all REU proposals:

- The appropriateness and value of the educational experience for the student(s), particularly the appropriateness of the research project(s) for undergraduate involvement and the nature of student participation in these activities.
- The quality of the supervisor(s) and attendant facilities, including any specialized equipment and its availability to student participants, and the proposer's experience with undergraduate research activities.
- The overall merit of the research activities.

Additional criteria will be applied to proposals to establish REU Sites:

- The adequacy of procedures for selecting participants with research supervisors;
- The quality of plans for student preparation and follow-through designed to promote continuation of student interest and involvement in research;
- The effectiveness of arrangements for managing the project;
- The record of the institution in motivating students to pursue careers in mathematics, science or engineering;
- The degree of institutional commitment to the project;
- The plans for involving underrepresented student groups in research.

## IV. NSF Contacts

General inquiries about REU may be directed to the relevant NSF research program.

Inquiries related specifically to some research aspect of a particular proposal should be directed to the relevant research program.

Key NSF organizational contact telephone numbers are as follows:

Biological, Behavioral, and Social Sciences: 202–357–9880.
Computer and Information Science and Engineering: 202–357–7349.
Engineering: 202–786–9631.
Geosciences:
Atmospheric Sciences: 202–357–9431.
Earth Sciences 202–357–9591.
Ocean Sciences: 202–357–7912.
Polar Programs: 202–357–7894.
Mathematical and Physical Sciences:
Astronomical Sciences: 202–357–7304.
Chemistry: 202–357–7499.
Materials Research: 202–357–9791.
Mathematical Sciences: 202–357–3453.
Physics: 202–357–7996.
Scientific, Technological, and International Affairs: 202–357–7456.

## V. Announcement Availability

The revised program announcement will be distributed initially to a variety of individuals at colleges and universities. Interested proposers whose institution's central office of sponsored research has not received a copy by the fourth week in August should request brochure NSF 90–79 from the Forms and Publications Unit, phone (202) 357–7668, or via e-mail (Bitnet:pubs@nsf or Internet: pubs@note.gov)

[1] Undergraduate Science, Mathematics and Engineering Education, Report of the National Science Board Task Committee on Undergraduate Science and Engineering Education, National Science Foundation, March 1986; National Priorities for Undergraduate Science and Engineering Education, National Higher Education Associations Task Force, American Council on Education, 1985.

[2] For the purpose of this announcement, minorities are defined as members of those racial and ethnic groups underrepresented in science and engineering: American Indians, Blacks, Hispanics, Native Alaskans or Native Pacific Islanders.

Dated: July 19, 1990.

**Linda E. Parker,**

*Program Analyst, Program Evaluation Staff.*

[FR Doc. 90–17306 Filed 7–24–90; 8:45 am]
[BILLING CODE 7555–01–M

# NUCLEAR REGULATORY COMMISSION

## Biweekly Notice Applications and Amendments to Operating Licenses Involving No Significant Hazards Considerations

### I. Background

Pursuant to Public Law (P.L.) 97-415, the Nuclear Regulatory Commission (the Commission) is publishing this regular biweekly notice. P.L. 97-415 revised section 189 of the Atomic Energy Act of 1954, as amended (the Act), to require the Commission to publish notice of any amendments issued, or proposed to be issued, under a new provision of section 189 of the Act. This provision grants the Commission the authority to issue and make immediately effective any amendment to an operating license upon a determination by the Commission that such amendment involves no significant hazards consideration, notwithstanding the pendency before the Commission of a request for a hearing from any person.

This biweekly notice includes all notices of amendments issued, or proposed to be issued from June 28, 1990 through July 12, 1990. The last biweekly notice was published on July 11, 1990 (55 FR 28471).

### NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE AND PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING

The Commission has made a proposed determination that the following amendment requests involve no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the

facility in accordance with the proposed amendments would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety. The basis for this proposed determination for each amendment request is shown below.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing.

Written comments may be submitted by mail to the Regulatory Publications Branch, Division of Freedom of Information and Publications Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and should cite the publication date and page number of this **Federal Register** notice. Written comments may also be delivered to Room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland from 7:30 a.m. to 4:15 p.m. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC. The filing of requests for hearing and petitions for leave to intervene is discussed below.

By August 24, 1990, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Requests for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the Local Public Document Room for the particular facility involved. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendments under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received before action is taken. Should the Commission take this action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 325-6000 (in Missouri 1-(800) 342-6700). The Western Union operator should be given

Datagram Identification Number 3737 and the following message addressed to (*Project Director*): petitioner's name and telephone number; date petition was mailed; plant name; and publication date and page number of this **Federal Register** notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the presiding Atomic Safety and Licensing Board, that the petition and/or request should be granted based upon a balancing of factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room for the particular facility involved.

**Carolina Power & Light Company, et al., Docket Nos. 50-325 and 50-324, Brunswick Steam Electric Plant, Units 1 and 2, Brunswick County, North Carolina**

*Date of amendments request:* May 22, 1990

*Description of amendments request:* The proposed amendments delete Item 7, Residual Heat Removal Head Spray Flow, from Technical Specification Tables 3.3.5.2-1 and 4.3.5.2-1, dealing with remote shutdown monitoring instrumentation. The head spray mode of RHR is no longer in use at Brunswick and, therefore, performing the required surveillances is unnecessary.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

Carolina Power & Light Company (the licensee) has reviewed the proposed changes and has determined that the requested amendments do not involve a significant hazards consideration for the following reasons:

1. The purpose of the head spray mode of RHR is to spray water in the reactor vessel head area, while in the process of reactor shutdown, to provide a rapid reactor vessel head cooldown. It is a low flow, low pressure system designed to supply 625 gpm of water to the vessel steam dome, through the head spray nozzle, at less than 129 psig. The Brunswick Plant was designed with this capability when it was anticipated that reactor vessel head conditions would be critical path for beginning a refueling outage. There are no safety-related functions associated the with head spray mode of RHR, nor is use of this capability addressed in the Emergency Operating Procedures. The head spray mode of RHR is not used for accident mitigation, normal operation, or shutdown at Brunswick. Its use for shutting down the unit was optional. Based on this reasoning, the proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed changes do not affect any safety-related functions. No new interfaces with safety-related equipment, system or structures or any new system subject to failure or malfunction have been introduced. The change merely deletes operability and surveillance requirements for nonsafety-related flow instrumentation associated with the head spray mode of RHR, an optional capability of RHR which is not used at the Brunswick Plant. There are no safety-related functions associated with the head spray mode of RHR, nor is use of this capability addressed in the Emergency Operating Procedures. Therefore, the proposed change can not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed amendment does not involve a significant reduction in the margin of safety. As stated above, the proposed change deletes operability and surveillance requirements for nonsafety-related flow instrumentation associated with the head spray mode of RHR, an optional capability of RHR which is not used at the Brunswick Plant. There are no safety-related functions associated with the head spray mode of RHR, nor is use of this capability addressed in the Emergency Operating Procedures. The head spray mode of RHR is not used for accident mitigation, normal operation, or shutdown at Brunswick. Therefore, the proposed amendment does not involve a significant reduction in the margin of safety.

The licensee has concluded that the proposed amendments meet the three standards in 10 CFR 50.92 and, therefore, involve no significant hazards consideration.

The NRC staff has made a preliminary review of the licensee's no significant hazards consideration determination and agrees with the licensee's analysis. Accordingly, the Commission proposes to determine that the requested amendments do not involve a significant hazards consideration.

*Local Public Document Room location:* University of North Carolina at Wilmington, William Madison Randall Library, 601 S. College Road, Wilmington, North Carolina 28403-3297.

*Attorney for licensee:* R. E. Jones, General Counsel, Carolina Power & Light Company, P.O. Box 1551, Raleigh, North Carolina 27602

*NRC Project Director:* Elinor G. Adensam

**Carolina Power & Light Company, Docket No. 50-261, H. B. Robinson Steam Electric Plant, Unit No. 2, Darlington County, South Carolina**

*Date of amendment request:* June 26, 1990

*Description of amendment request:* The proposed amendment would allow steam generator tube inspection to be performed from either the hot-leg or cold-leg side of the channel head.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

Carolina Power & Light Company (the licensee) has reviewed the proposed changes and has determined that the requested amendment does not involve a significant hazards consideration for the following reasons:

1. Operation of the facility, in accordance with the proposed amendment, would not involve a significant increase in the probability or consequences of an accident previously analyzed. Chapter 15 of the UFSAR was reviewed, in particular 15.6.3, detailing the steam generator tube rupture accident. This is the most probable accident if a tube defect is not located and plugged. This Technical Specification change in no way increases the probability of an accident previously evaluated in that tube defects will continue to be located, because the tube is still being inspected using the same methodology (eddy current) and acceptance criteria. All actions associated with tube inspection are performed at cold shutdown. In addition, no changes in system

configurations previously analyzed have been made; therefore, no increased probability of accidents previously evaluated can occur. Detection of defects and subsequent plugging will continue to minimize the consequences of accidents previously analyzed. No pertinent accidents have been postulated to occur at cold/refueling shutdowns when these inspections occur. Tube inspections will continue to identify potential defects in the areas of concern, independent of the point of entry. The entry of a probe into a tube during an inspection outage will have no effect on the consequences of an accident as described in Chapter 15 of the UFSAR.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated. Entry of an inspection device into a tube from the cold-leg side does not introduce a new kind of accident. Eddy current testing is presently performed during cold shutdown or refueling outages; and in some cases, the inspection device extends into the cold-leg region. These devices are accounted for, with QA inspection of steam generator channel head cleanliness, prior to placing the steam generator back in service. Again, no modification has been made to the steam generator; therefore, no new accident, different from any accident previously evaluated, can occur.

Eddy current testing has been performed in previous outages; this change will still allow this testing to take place. Because this testing does not affect the integrity of the reactor coolant boundary, but is to assure that corrosion has not affected this integrity, a different kind of accident, other than previously evaluated, will not take place.

3. Operation of the facility, in accordance with the proposed amendment, would not involve a significant reduction in a margin of safety. Entry of an inspection device into a tube and the subsequent inspection do not affect the integrity of the reactor coolant system or affect how the plant would respond to a tube leak or tube rupture; therefore, the margin of safety is not reduced.

The licensee has concluded that the proposed amendment meets the three standards in 10 CFR 50.92 and, therefore, involves no significant hazards consideration.

The NRC staff has made a preliminary review of the licensee's no significant hazards consideration determination and agrees with the licensee's analysis. Accordingly, the Commission proposes to determine that the requested amendment does not involve a significant hazards consideration.

*Local Public Document Room location:* Hartsville Memorial Library, Home and Fifth Avenues, Hartsville, South Carolina 29535

*Attorney for licensee:* R. E. Jones, General Counsel, Carolina Power & Light Company, P. O. Box 1551, Raleigh, North Carolina 27602

*NRC Project Director:* Elinor G. Adensam

**Carolina Power & Light Company, Docket No. 50-261, H. B. Robinson Steam Electric Plant, Unit No. 2, Darlington County, South Carolina**

*Date of amendment request:* June 29, 1990

*Description of amendment request:* The proposed change deletes the required surveillance of the turbine overspeed protection trip channel (electric) from TS Table 4.4-1 so that the turbine redundant overspeed trip system (TROTS) may be disabled and physically removed. The TROTS, a secondary protection, has been responsible for several unnecessary challenges to plant safety systems.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Carolina Power & Light Company (the licensee) has reviewed the proposed changes and has determined that the requested amendment does not involve a significant hazards consideration for the following reasons:

1. Operation of the facility, in accordance with the proposed amendment, would not involve a significant increase in the probability or consequences of an accident previously analyzed because TROTS is not credited as a mitigating system, nor is it related to the initiation of any postulated accident.

2. Operation of the facility in accordance with the proposed amendment would not create the possibility of a new or different kind of accident from any accident previously evaluated because no failure mechanisms are introduced which would initiate any new accident not previously anticipated or bounded by FSAR assumptions as the TROTS is not considered a mitigating or initiating system in any accident.

3. Operation of the facility, in accordance with the proposed amendment, would not involve a significant reduction in a margin of safety. Intuitively, removal of a third level system such as TROTS could involve some decrease in the margin of safety. However, a comparison of the magnitude of results of calculations performed in 1970 and for justification of TROTS removal support [sic] a conclusion that a decrease in the margin of safety is not significant. The probabilities of occurrence of the events of significance in both analyses are commensurately extremely small, well below NRC acceptance criteria, and thus potential changes of even an order of magnitude would also be insignificant. Additionally, the probability of missile ejection is dominated by the probability of reaching destructive overspeed, which is not predicted to be significantly increased with TROTS removed. Finally, the proposed change will result in the elimination of a proven source of unnecessary challenges to safety systems since TROTS has been documented as the cause of four trips due to failures in the system. Thus, this aspect of the change will provide an operational enhancement in that these unnecessary challenges to plant safety systems will be eliminated.

The licensee has concluded that the proposed amendment meets the three standards in 10 CFR 50.92 and, therefore, involves no significant hazards consideration.

The NRC staff has made a preliminary review of the licensee's no significant hazards consideration determination and agrees with the licensee's analysis. Accordingly, the Commission proposes to determine that the requested amendment does not involve a significant hazards consideration.

*Local Public Document Room location:* Hartsville Memorial Library, Home and Fifth Avenues, Hartsville, South Carolina 29535

*Attorney for licensee:* R. E. Jones, General Counsel, Carolina Power & Light Company, P.O. Box 1551, Raleigh, North Carolina 27602

*NRC Project Director:* Elinor G. Adensam

**Connecticut Yankee Atomic Power Company, Docket No. 50-213, Haddam Neck Plant, Middlesex County, Connecticut**

*Date of amendment request:* June 14, 1990

*Description of amendment request:* Connecticut Yankee Atomic Power Company (CYAPCO) has proposed changes to the Technical Specifications (TS) to correct typographical errors in Section 3/4.3.3 of the INDEX and ACTION items 54 and 55 of TABLE 3.3-11 to reference ACTION 53 instead of ACTION 48, and add an exception to the requirements of TS 4.0.4 for performing the E-bar surveillance (Table 4.4-4, Item 3) prior to entry into MODE 1.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards in 10 CFR 50.92(c) for determining whether a significant hazards consideration exists. In accordance with 10 CFR 50.92 CYAPCO has reviewed the proposed Technical Specifications and concluded that they do not involve a significant hazards

consideration because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously analyzed.

The proposed changes which correct the word FOOD to FLOOD, and ACTION 48 to 53 are intended to correct typographical errors encountered in the conversion of the Haddam Neck Plant Technical Specifications to the Westinghouse Standard Technical Specification format. There are no failure modes associated with the proposed changes nor are any design basis accidents impacted by the changes.

The proposed change to the E-bar surveillance addresses a situation that would prevent entrance into MODE 1. Sampling can only be performed at power as stated in the footnote. An exception to Specification 4.0.4 is necessary to allow changing from MODE 2 to MODE 1. The intent of the Technical Specification remains the same by performing the sampling after a minimum of 2 EFPD and 20 days of POWER OPERATION have elapsed. The proposed change does not affect the radiological dose calculations or the confidence that coolant activity is within specifications.

For these reasons, the proposed changes do not increase the probability or consequences of any accident previously analyzed.

2. Create the possibility of a new or different kind of accident from that previously analyzed.

The correction of the spelling of FLOOD and changing ACTION 48 to 53 are editorial in nature and intended to correct typographical errors encountered during the recent major revision of the Haddam Neck Plant Technical Specifications.

The proposed change to the E-bar surveillance requirement alleviates a situation that would prevent entry into MODE 1.

There are no changes in the way the plant is operated or in the operation of equipment credited in the design basis accidents. Therefore, the potential for an unanalyzed accident is not created.

3. Involve a significant reduction in the margin of safety.

The intent of the Technical Specifications for all changes remains unchanged. The proposed changes will not impact any protection boundary and do not affect the consequences of any accident previously analyzed. Therefore, there is no reduction in the margin of safety.

The NRC staff has reviewed this analysis and based on this review, it appears that the three standards are satisfied. Therefore, the NRC staff proposes to determine that the application for amendment involves no significant hazards consideration.

*Local Public Document Room location:* Russell Library, 123 Broad Street, Middletown, Connecticut 06457.

*Attorney for licensee:* Gerald Garfield, Esquire, Day, Berry & Howard, Counselors at Law, City Place, Hartford, Connecticut 06103-3499.

*NRC Project Director:* John F. Stolz

**Detroit Edison Company, Docket No. 50-341, Fermi-2, Monroe County, Michigan**

*Date of amendment request:* December 22, 1988 as supplemented May 31, 1989.

*Description of amendment request:* The proposed amendment will revise the Technical Specifications by adding Limiting Conditions for Operation and Surveillance Requirements for the Alternative Shutdown System installed to mitigate the effects of a fire in the control room at Fermi-2.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists [10 CFR 50.92(c)] for a proposed amendment to a facility operating license. A proposed amendment to an operating license for a facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has evaluated the proposed changes against the above standards as required by 10 CFR 50.92. The licensee concludes that:

The proposed change to include requirements for the Appendix R Alternative Shutdown System in Technical Specifications does not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated. Neither the probability nor the consequences of a fire will be changed since the proposed addition to the Fermi 2 Technical Specifications is being made to support additional design features which were installed to further mitigate the consequences of certain fires.

(2) Create the possibility of a new or different kind of accident from any accident previously evaluated. The additional design features (Appendix R Shutdown System) associated with the proposed Technical Specifications have been evaluated in Supplements 5 and 6 of the NRC Safety Evaluation Report [NUREG-0798] for the Fermi 2 facility. The proposal solely adds appropriate requirements for the system and therefore does not involve a new or different kind of accident.

(3) Involve a significant reduction in a margin of safety. The proposed changes enhances the capability of the plant to respond to certain postulated large fires. By so doing, the change improves the margin of safety for those events while not affecting any other margin of safety.

The staff has reviewed the licensee's evaluation and concurs with it. On the basis of the above consideration, the staff proposes to find that the changes do not involve a significant hazards consideration.

*Local Public Document Room location:* Monroe County Library System, 3700 South Custer Road, Monroe, Michigan 48161.

*Attorney for licensee:* John Flynn, Esq., Detroit Edison Company, 2000 Second Avenue, Detroit, Michigan 48226.

*NRC Project Director:* Robert C. Pierson, Acting.

**Duke Power Company, Docket Nos. 50-269, 50-270 and 50-287, Oconee Nuclear Station, Units 1, 2 and 3, Oconee County, South Carolina**

*Date of amendment request:* February 7, 1990, as supplemented May 7, 1990

*Description of amendment request:* The proposed amendments will (1) incorporate programmatic controls in the Administrative Controls section of the Technical Specifications (TSs) that satisfy the requirements of 10 CFR 20.106, 40 CFR Part 190, 10 CFR 50.36a and Appendix I to 10 CFR Part 50, (2) relocate the existing procedural details in current specifications involving radioactive effluent monitoring instrumentation, the control of liquid and gaseous effluents, equipment requirements for liquid and gaseous effluents, radiological environmental monitoring, and radiological reporting details from the TSs to Chapter 16 of the Final Safety Analysis Report (FSAR), "Selected Licensee Commitment (SLC) Manual," (3) relocate the definition of solidification and existing procedural details in the current specification on solid radioactive wastes to the SLC Manual, (4) simplify the associated reporting requirements, (5) simplify the administrative controls for changes to the Offsite Dose Calculation Manual (ODCM) and Process Control Program (PCP), (6) add record retention requirements for changes to the ODCM and PCP, and (7) update the definitions of the ODCM and PCP consistent with these changes. These TS changes were submitted in response to NRC Generic Letter 89-01, which provided guidance for the relocation of the Radiological Effluent Technical Specifications (RETS) as part of the line-item TS improvement program.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards (10 CFR 50.92(c)) for determining whether a significant hazards consideration exists. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would

not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

In regard to the proposed amendments, the licensee provided an evaluation of the proposed changes with respect to these three standards:

1. The proposed changes are administrative in nature since the existing RETS requirements are maintained and merely relocated to the Oconee SLC Manual, which is controlled as part of the Oconee FSAR.

Any future changes to this information would be evaluated in accordance with the process described in 10 CFR 50.59. Under 10 CFR 50.59, changes may be made without prior Commission approval if the licensee has determined that an unreviewed safety question is not involved. A report of such changes is required to be submitted to the Commission annually.

No hardware changes or additions will be made to the Oconee Nuclear Station as a result of these proposed amendments. There would be no increase in the types or amounts of radioactive effluent releases, nor an increase in individual or cumulative occupational radiation exposures as a result of these changes. As such, these changes will not involve an increase in the probability or consequences of any accident previously evaluated.

2. As stated above, the proposed changes are administrative in nature and involve no changes in RETS requirements, hardware modifications or increases in radioactive effluent releases or personnel occupational exposure. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any kind of accident previously evaluated.

3. The existing RETS requirements will be maintained as part of the Oconee SLC Manual and will continue to provide adequate controls for radioactive effluent releases and for radiological environmental monitoring activities. As such, the proposed amendments would not involve a significant reduction in a margin of safety.

The Commission's staff has considered the proposed changes and agrees with the licensee's evaluation with respect to the three standards for determining the existence of a significant hazards consideration.

On this basis, the Commission proposes to determine that the proposed amendments involve no significant hazards consideration.

*Local Public Document Room location:* Oconee County Library, 501 West South Broad Street, Walhalla, South Carolina 29691

*Attorney for licensee:* J. Michael McGarry, III, Bishop, Cook, Purcell and Reynolds, 1400 L Street, NW., Washington, DC 20005

*NRC Project Director:* David B. Matthews

**Entergy Operations, Inc., et al., Docket No. 50-416, Grand Gulf Nuclear Station, Unit 1, Claiborne County, Mississippi**

*Date of amendment request:* February 16, 1990 as revised May 31, 1990 and June 22, 1990.

*Description of amendment request:* The amendment would extend the date for installing a neutron flux monitor for improved accident monitoring from the fourth refueling outage (October 1990) to the fifth refueling outage (April 1992).

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

Entergy Operations, Inc. (the licensee), has provided an analysis about the issue of no significant hazards consideration using the three standards in 10 CFR 50.92 as reproduced below.

1. No significant increase in the probability or the consequences of an accident previously evaluated results from this proposed change because:

Deferral of the proposed GGNS post accident neutron monitoring system during the fifth fuel cycle does not involve a significant increase in the probability of an accident previously evaluated since the proposed system modification would not affect reactor operation and is not an initiator for any previously evaluated accidents. The post accident neutron flux monitoring system provides post-accident indication of reactor power and does not provide any signals to actuate engineered safety features or to trip the reactor. Furthermore, reactor trip signals from the present neutron flux monitoring system to the reactor protection system will not be changed as a result of the installation of the proposed GGNS post accident neutron monitoring system.

The deferral of the currently proposed post accident neutron monitoring during GGNS Cycle 5 does not cause the consequences of an accident previously analyzed to significantly increase since:

a. The existing SRM/IRM system is expected to function during the initial phase of an accident (including a LOCA) to indicate subcritical reactor power. Long term post-LOCA monitoring is available through the APRM channels where operator action is required at the APRM downscale alarm. In addition, other measures and indications can provide the operator with reactor power information as discussed below:

i. The present control rod position indication system provides the reactor operator with information that all rods are inserted.

ii. Qualified instrumentation such as reactor pressure, suppression pool temperature and safety relief valve (SRV) actuation provide the reactor operator with post-accident information for assessment of reactor power.

b. The currently proposed GGNS post accident neutron monitoring system is expected to be within two decades of meeting the RG 1.97 low end range of 10E-6% power. The intent of the post accident neutron monitoring system (as discussed in the January 29, 1990 NRC Safety Evaluation Report on NEDO-31558) is to provide warning of possible events for returning the reactor to a critical state. Under anticipated design basis events once all rods have been inserted, return to a critical state would not be expected.

Under hypothetical events where certain rods would drift out or where fuel would undergo some physical changes, the GGNS proposed system would provide 6 decades (10E-4% to 100% power) of power status information to the operator during the fifth fuel cycle. However, deferring installation of the proposed system one cycle to allow for additional design criteria review and further system detector location evaluation may provide a post accident monitoring system that would have a greater reliability and operating range (8 decades) for detecting reapproach to criticality.

c. Under a potential event as considered in the NRC SER on NEDO-31558, the GGNS symptom based Emergency Procedures (EPs) provide appropriate conservative actions during Cycle 5 if reactor power cannot be directly measured in a post-accident condition. The EPs contain action steps which mitigate the symptomatic effects of design basis events (such as LOCA) and beyond design basis events (such as ATWS) along with potential degraded core events.

Therefore, the consequences of an accident previously evaluated will not be significantly increased by the absence of a post accident neutron flux monitoring system during the fifth fuel cycle.

2. This proposed change will not create the possibility of a new or different kind of accident than any previously evaluated because:

The neutron monitoring system previously proposed by Entergy Operations on GGNS for meeting RG 1.97 will provide

supplemental post accident monitoring capability by providing additional operator information in order to perform further potential mitigative actions during an accident. Its installation will not preclude or prevent any accident. As such, delaying the installation of the RG 1.97 post accident neutron monitoring system will not create the possibility of a new or different kind of accident. During the extension period, the existing SRM/IRM neutron monitoring system will remain unchanged from the configuration that was previously evaluated in the FSAR.

3. This proposed change does not involve a significant reduction in the margin of safety because:

The current GGNS margin of safety is established by the existing SRM/IRM neutron monitoring system and the shutdown margin of the control rod system. The post accident neutron monitoring system required by RG 1.97 provides additional information to the operator for responding to undefined post accident reactivity anomalies. The proposed GGNS excore neutron monitoring system originally proposed for installation during the fourth refueling outage would provide neutron monitoring diversity and qualified instrumentation to approximately 10E-4% power. Deferral of this system for one additional fuel cycle to allow for further review of system design criteria and alternate detector locations for improving low end range sensitivity to 10E-6% power will reduce the post accident neutron monitoring margin of safety during Cycle 5 operations. However, the margin of safety for a post accident monitoring system having potentially 8 decades of operating range for the remainder of the GGNS plant operating life (as compared to one having only 6 decades) would provide an overall long term net improvement in post accident neutron monitoring capability. Therefore, the deferral of the NMS for one fuel cycle when viewed over the complete operating life of the plant would result in a net increase in the margin of safety.

In addition, the design, function, and operation of the existing GGNS IRM/SRM neutron monitoring system will remain the same as that described in the UFSAR. No additional reactor protection trip functions will be performed by the RG 1.97 post accident neutron monitoring system instrumentation. EP actions are conservative with respect to the use of the NMS for verification that the reactor is shutdown. If assuming an accident scenario where the post accident flux monitoring system is not available during GGNS Cycle 5, operator actions are specified which will lead to safe reactor shutdown.

Therefore, the margin of safety is not significantly reduced by the deferral of the RG 1.97 post accident neutron flux monitoring system until the fifth refueling outage.

The licensee has concluded that the proposed amendment meets the three standards in 10 CFR 50.92 and, therefore, involves no significant hazards consideration.

The NRC staff has made a preliminary review of the licensee's no significant hazards consideration analysis and agrees with the licensee's conclusion. Accordingly, the Commission proposes to determine that the requested amendment involves no significant hazards consideration.

*Local Public Document Room Location:* Hinds Junior College, McLendon Library, Raymond, Mississippi 39154

*Attorney for licensee:* Nicholas S. Reynolds, Esquire, Bishop, Liberman, Cook, Purcell and Reynolds, 1400 L Street, NW., 12th Floor, Washington, DC 20005-3502

*NRC Project Director:* Richard F. Dudley, Acting

**Entergy Operations, Inc., et al., Docket No. 50-416, Grand Gulf Nuclear Station, Unit 1, Claiborne County, Mississippi**

*Date of amendment request:* April 27, 1990, as revised July 5, 1990

*Description of amendment request:* The proposed amendment would revise the Grand Gulf Nuclear Station, Unit 1 (GGNS-1) Technical Specifications (TSs) and Bases by adding requirements for the operation and use of the alternate decay heat removal system (ADHRS) during future GGNS-1 outages. In addition, the amendment would require automatic isolation of the reactor vessel and automatic initiation and injection of water into the reactor for one of the two emergency core cooling system (ECCS) subsystems required to be operable during Operational Conditions (OCs) 4 and 5 to mitigate inadvertent reactor vessel drainage.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety. Accidents have been previously evaluated in the Updated Final Safety Analysis Report (UFSAR).

Entergy Operations, Inc. (the licensee), has provided an analysis about the issue of no significant hazards consideration using the three standards in 10 CFR 50.92 as reproduced below.

1. No significant increase in the probability or consequences of an accident previously evaluated results from this change.

a. Entergy Operations has evaluated UFSAR events which are considered to be applicable during OCs 4 and 5. These events include a dropped fuel bundle and inadvertent criticality. The proposed TS changes do not affect the probability of occurrence of any of these events. The proposed changes would have no effect on fuel handling operations in the containment or in the spent fuel pool because fuel handing procedures and methods remain unchanged. The proposed changes have no effect on control rod interlocks or fuel loading errors and thus do not affect the probability of occurrence of an inadvertent criticality.

b. Entergy Operations has also evaluated the proposed TS changes for impact upon reactor vessel drainage and loss of decay heat removal events. The probability of these events has not been significantly increased by the proposed TS changes. ADHRS when used will be backed up by a decay heat removal system so that if ADHRS were to fail a loss of decay heat removal event would not occur. The proposed changes for the isolation instrumentation and valves will reduce the likelihood of a reactor vessel drainage event since they will now be required operable. ECCS requirements with the proposed changes will not change the probability of either event since ECCS provides mitigation not prevention.

c. The consequences of vessel drainage and loss of decay heat removal events are not significantly increased by the proposed TS changes. The proposed TS changes will place more restrictive controls upon plant operations in OCs 4 and 5 regarding the use of the ADHRS, operable ECCS subsystems/systems, and reactor vessel isolation valves and instrumentation. The proposed TS changes increase the mitigation of these events and reduce their consequences.

d. Therefore, the probability or consequences of previously analyzed accidents are not significantly increased.

2. The change would not create the possibility of a new or different kind of accident from any previously analyzed.

a. The proposed changes do not increase the amount of time ECCS or RHR shutdown cooling loops are unavailable nor do the changes reduce the containment isolation capability. The proposed changes do not increase the potential for draining the reactor vessel. Since the above safety systems are maintained, there is no possibility of a new or different kind of accident from any previously analyzed. The proposed changes are intended to maintain and will, in some cases, increase the level of plant safety.

b. Therefore, this change does not create the possibilty of a new or different kind of accident from any previously evaluated.

3. This change would not involve a significant reduction in the margin of safety.

a. The proposed changes will still ensure that core decay heat removal, ECCS makeup capabilities and isolation capability are available when required during OCs 4 and 5. Essential safety systems are operable as necessary during OCs 4 and 5. The proposed TS changes place more restrictions on plant operations during OCs 4 and 5 than do the current TS concerning the use of alternate methods of decay heat removal, ECCS

subsystem/system operability, and isolation valve and instrumentation operability.

b. Therefore, this change will not involve a significant reduction in the margin of safety.

The licensee has concluded that the proposed amendment meets the three standards in 10 CFR 50.92 and, therefore, involves no significant hazards consideration.

The NRC staff has made a preliminary review of the licensee's no significant hazards consideration analysis and agrees with the licensee's conclusion. Accordingly, the Commission proposes to determine that the requested amendment involves no significant hazards consideration.

*Local Public Document Room Location:* Hinds Junior College, McLendon Library, Raymond, Mississippi 39154

*Attorney for licensee:* Nicholas S. Reynolds, Esquire, Bishop, Liberman, Cook, Purcell and Reynolds, 1400 L Street, NW., 12th Floor, Washington, DC 20005-3502

*NRC Project Director:* Richard F. Dudley, Acting

**Entergy Operations, Inc., et al., Docket No. 50-416, Grand Gulf Nuclear Station, Unit 1, Claiborne County, Mississippi**

*Date of amendment request:* June 8, 1990

*Description of amendment request:* The proposed amendment would revise the Grand Gulf Nuclear Station (GGNS), Unit 1 Technical Specifications (TSs) in support of the Cycle 5 Reload operations for GGNS, Unit 1. The amendment would involve revising the applicable TSs to reflect reload of the Advanced Nuclear Fuels Corporation (ANF) 8x8 and 9x9-5 fuel types and clarifying the associated Bases to be consistent with ANF methodologies. Specifically, the proposed TS changes address the following: (a) the revision of Minimum Critical Power Ratio (MCPR) safety limits for Two Loop and Single Loop Operation; (b) the revision of the minimum power level above which the Rod Action Control System (RACS) may be bypassed at any time; (c) the consolidation of the Maximum Average Planar Linear Heat Generation Rate (MAPLHGR) limit curves for 8x8 and 9x9-5 fuel types that will be resident in the core during Cycle 5; (d) the replacement of MAPLHGR multipliers by Linear Heat Generation Rate (LHGR) multipliers; (e) the extension of LHGR limits for 8x8 fuel types to bound the expected end-of-life exposures; (f) the extension of flow-dependent Minimum Critical Power Ratio ($MCPR_f$) and flow-dependent LHGR Factor ($LHGRFAC_f$) curves at low flows; (g) the revision of flow-dependent Minimum Critical Power Ratio ($MCPR_f$) operating limits curves for Non-Loop Manual and Loop Manual modes of operation; (h) the revision of power-dependent Minimum Critical Power Ratio ($MCPR_p$) operating limits; (i) the introduction of exposure-dependent Minimum Critical Power Ratio ($MCPR_e$) operating limits; (j) the revision of the power/flow map to show the operating domain applicable to GGNS Unit 1; and (k) administrative changes to reflect the changes in TSs and Bases.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a no significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

Entergy Operations, Inc. (the licensee), has provided an analysis about the issue of no significant hazards consideration using the three standards in 10 CFR 50.92 as reproduced below.

1. No significant increase in the probability or consequences of an accident previously evaluated results from these changes.

a) This change consists of revisions to the MCPR safety limits for Two Loop and Single Loop Operation. The revised limits are determined using the ANF Safety Limit methodology and the ANFB critical power correlation and account for the effects of channel bow. This change only redefines the safety limits and does not affect the precursors to any event evaluated previously. Therefore, the change to the MCPR safety limits does not involve a significant increase in the probability of any event previously evaluated.

As a result of this change, increases in the Cycle 4 safety limits are observed. The revised limits account for the uncertainties associated with safety limit determination and the effects of channel bow. They ensure compliance with the applicable criterion for incipient boiling transition. Therefore, the revision of the MCPR safety limits does not involve a significant increase in the consequences of any event previously evaluated.

b) This change consists of a revision to the minimum power level above which control rods may be bypassed at any time in the RACS (cutoff power level). It only redefines the power level below which the enthalpy deposition considerations associated with the Rod Drop Accident are significant. It does not affect the precursors to any event previously evaluated. Therefore, the revision to the minimum power level does not involve a significant increase in the probability of any event previously evaluated.

The revised power level has been shown to be acceptable based on BWROG methodology, which has been approved. The generic analysis supporting a reduced cutoff power level has been shown to be applicable to Grand Gulf Unit 1. The analysis demonstrates that no significant control rod drop can occur above 10% power. Therefore, the revision to the minimum power level does not involve a significant increase in the consequences of any event previously evaluated.

c) This change consists of revisions to the MAPLHGR limits for 8x8 and for 9x9-5 fuel types. This change only redefines the MAPLHGR limits for all 8x8 and for 9x9-5 fuel types that will be resident in the core for Cycle 5; it does not affect the precursors to any event previously evaluated. Therefore, the revision of the MAPLHGR limits does not involve a significant increase in the probability of any event previously evaluated.

The peak clad temperature (PCT) for the 8x8 fuel types that will be resident in the core for Cycle 5 was calculated previously based on a bounding MAPLHGR curve. This curve is used as the consolidated limit for all 8x8 fuels. Similarly, a bounding MAPLHGR curve for all 9x9-5 fuel type is introduced. Consistent with the use of bounding MAPLHGR curves, a revised MAPLHGR multiplier is provided for single loop operation (SLO). The PCT for SLO is bounded by the PCT for two loop operation. For two loop operation, the calculated PCT for 9x9-5 fuel is 5 degrees F higher than the PCT that was calculated previously for the 8x8 fuel. However, the PCT for 9x9-5 fuel is well below the 10CFR50.46 limit of 2200 degrees F.

Therefore, the revision of the MAPLHGR limits does not involve a significant increase in the consequences of any event previously evaluated.

d) This change addresses the replacement of MAPLHGR multipliers by LHGR multipliers for operation at off-rated conditions. The LHGR multipliers ensure that the mechanical design criteria are satisfied; this serves the same purpose as the MAPLHGR multipliers for previous cycles. This change does not affect the precursors to any event previously evaluated. Therefore, the replacement of the MAPLHGR multipliers by LHGR multipliers does not involve a significant increase in the probability of any event previously evaluated.

The use of LHGR multipliers that are applied to the LHGR limit is equivalent to the use of MAPLHGR multipliers applied to a MAPLHGR limit (which was defined based on the LHGR limit in previous cycles) in meeting the mechanical design criteria. Therefore, the replacement of MAPLHGR multipliers by LHGR multipliers does not involve a significant increase in the consequences of any event previously evaluated.

e) This change extends the LHGR limit for 8x8 fuel types to bound the expected end-of-life exposure. This change only extends the Cycle 4 LHGR limit for all 8x8 fuel types that

will be resident in the core for Cycle 5; it does not affect the precursors to any event evaluated previously. Therefore, the extension of the LHGR limits for 8x8 fuel types does not involve a significant increase in the probability of any event previously evaluated.

The LHGR limits for the 8x8 fuel types that will be resident in the core for Cycle 5 were established previously in order to satisfy the fuel mechanical design criteria, and are based on approved ANF methodologies. Therefore, the extension of the LHGR limits for 8x8 fuel types does not involve a significant increase in the consequences for any event previously evaluated.

f) This change, which is introduced for Cycle 5, extends the flow-dependent limits ($MCPR_f$ and $LHGRFAC_f$) at low flows. The core flows for which these limits are defined bound the core flows during normal operations for both single loop and two loop operation. These limits ensure protection of the MCPR safety limit for the slow flow runout event. For these conditions, the MCPR safety limit is protected by the $MCPR_p$ limits for all other events. This change only defines the flow-dependent limits at low flows and does not affect the precursors to any event previously evaluated. Therefore, the extension of the flow-dependent limits at low flows does not involve a significant increase in the probability of any event previously evaluated.

For initial core flows below 30% of rated, the credible flow increase and the resulting change in CPR for both single loop and two loop operation are bounded by the analysis results for two loop operation. The extension to the flow-dependent limits is applied for both Loop Manual and Non-Loop Manual modes. Therefore, the extension of the flow-dependent limits at low flows does not involve a significant increase in the consequences of any event previously evaluated.

g) This change consists of revisions to the $MCPR_f$ operating limits. The revised limits are defined for specific modes of operation and are based on ANF's methodology. These changes only redefine the flow-dependent MCPR limits established for Cycle 4 and do not affect the precursors to any event previously evaluated. Therefore, the revision of the $MCPR_f$ operating limits does not involve a significant increase in the probability of any event previously evaluated.

As a result of this change, both reductions and increases relative to the Cycle 4 limits are observed. However, the revised $MCPR_f$ operating limits were constructed in a conservative manner. The limiting flow runout event will not cause the plant to exceed the MCPR safety limit. Therefore, the revision of the $MCPR_f$ operating limits does not involve a significant increase in the consequences of any event previously evaluated.

h) This change consists of revisions to the $MCPR_p$ operating limits. As a result of this change, increases in the Cycle 4 $MCPR_p$ operating limits are observed at the low power/high flow and high power statepoints for Cycle 5. The revised $MCPR_p$ limits are established based on ANF methodology. This change only redefines the $MCPR_p$ limits and does not affect the precursors to any event previously evaluated. Therefore, the revision of the $MCPR_p$ operating limits does not involve a significant increase in the probability of any event previously evaluated.

The Cycle 5 analyses have demonstrated that the revised limits ensure that the limiting events will result in a final MCPR at or above the MCPR safety limit. Therefore, the revision of the $MCPR_p$ operating limits does not involve a significant increase in the consequences of any event previously evaluated.

i) This change comprises the introduction of exposure-dependent MCPR operating limits for Cycle 5 ($MCPR_e$). The $MCPR_e$ limits are established based on ANF methodology. This change only redefines the MCPR operating limits and does not affect the precursors to any event previously evaluated. Therefore, the introduction of the $MCPR_e$ operating limits does not involve a significant increase in the probability of any event previously evaluated.

The Cycle 5 analyses have demonstrated that the exposure-dependent limits ensure that the limiting events will result in a CPR at or above the MCPR safety limit. Therefore, the introduction of the $MCPR_e$ operating limits does not involve a significant increase in the consequences of any event previously evaluated.

j) This change consists of a revision to the power/flow map consistent with the Grand Gulf Unit 1 operating domain. The revised map is constructed from a combination of the Maximum Extended Operating Domain boundaries established for previous cycles, the constant flow control valve (FCV) position lines determined based on Grand Gulf startup test data, and the 80% and 100% rod lines defined in the Grand Gulf core stability-related technical specifications. This change only redefines the power/flow map to be consistent with the Grand Gulf Unit 1 operating domain and does not affect the precursors to any event previously evaluated. Therefore, the revision of the power/flow map does not involve a significant increase in the probability of any event previously evaluated. The domain of the revised map is an analysis input for the Cycle 5 reload analyses. These analyses have shown that the safety limits are not challenged. Therefore, the revision of the power/flow map does not involve a significant increase in the consequences of any event previously evaluated.

k) These changes are administrative. Therefore, they do not involve a significant increase in the probability or consequences of an accident previously evaluated.

Overall, the proposed changes define parameters determined conservatively and consistent with the fuel which will be resident in the core during Cycle 5. They do not affect the precursors to any accident previously evaluated. These changes, therefore, do not involve a significant increase in the probability or consequence of any accident previously evaluated.

2. These changes do not create the possibility of a new or different kind of accident from any previously evaluated.

This response addresses Items a) through j).

The 9x9-5 fuel type has been shown to be of a design compatible with the fuel present in the core. It has been determined that the 9x9-5 fuel will not create the possibility of a new or different kind of accident. The proposed changes do not involve any new modes of operation, any changes to setpoints, or any plant modifications. They only introduce revised limits that have been shown to be acceptable for Cycle 5 operation

Therefore, the proposed changes do not result in the creation of any new precursors to an accident. The administrative changes have no effect on any accidents.

Therefore, the proposed changes do not create the possibility of a new or different type of accident from any accident previously evaluated.

3. These changes do not involve a significant reduction in the margin of safety.

a) This change consists of revisions to the MCPR safety limits for Two Loop and Single Loop Operation. The revised limits are based on ANF methodology and account for the effects of channel bow. These changes only redefine the safety limits resulting in a change in the limits from 1.06 and 1.07 (Cycle 4) to 1.08 (Cycle 5) for two loop and single loop operation, respectively. The available margin to the MCPR corresponding to incipient boiling transition is not decreased. Therefore, the revision of the MCPR safety limits does not involve a significant reduction in the margin of safety.

b) This change consists of a revision to the minimum power level, above which control rods may be bypassed at any time in the RACS. It only reduces the power level (from 20% for Cycle 4 to 10% for Cycle 5) above which the enthalpy deposition considerations associated with the Rod Drop Accident (RDA) are insignificant. Therefore, the revision of the minimum power level does not involve a significant reduction in the margin of safety.

c) This change revises the MAPLHGR limits by introducing a consolidated MAPLHGR limit for the 8x8 and for the 9x9-5 fuel types that will be resident in the core for Cycle 5. Consistent with this change, a revised MAPLHGR multiplier is provided for single loop operation (SLO). For two loop operation, the peak clad temperature (PCT) for the 8x8 fuel types was calculated previously to be 1691 degrees F using the consolidated 8x8 MAPLHGR limit. The PCT for the 9x9-5 fuel types (1696 degrees F) was calculated using the same methodology that was used for 8x8 fuel types. The results show that for two loop operation, the PCT for 9x9-5 fuel is essentially unchanged from the PCT for 8x8 fuel types inserted during previous cycles. The PCT for SLO is bounded by the PCT for two loop operation. Compared to the 5 degrees F increase in PCT (from 1691 degrees F to 1696 degrees F), the available margin to the 10CFR50.46 limit of 2200 degrees F remains greater than 500 degrees F for both two loop operation and SLO. Therefore, the revision of the MAPLHGR limits does not involve a significant reduction in the margin of safety.

d) This change addresses the replacement of MAPLHGR multipliers by LHGR multipliers for operation at off-rated conditions. The LHGR multipliers ensure that the mechanical design criteria are satisfied. This is equivalent to the MAPLHGR multipliers being applied to the LHGR-based MAPLHGR limits, as was done for previous cycles. The LHGR limits and the multiplier values that were defined for Cycle 4 are unchanged for Cycle 5 (other than extensions to address higher exposures and lower flows, as discussed in items e) and f) below). Therefore, the replacement of MAPLHGR multipliers by LHGR multipliers does not involve a significant reduction in the margin of safety.

e) This change addresses the extension of the LHGR limits for 8x8 fuel types to bound the expected end-of-life exposure. The LHGR limits, which were established previously on a generic basis, ensure that the mechanical design criteria are satisfied. Therefore, the extension of the LHGR limits for 8x8 fuel types does not involve a significant reduction in the margin of safety.

f) This change, introduced for Cycle 5, extends the flow dependent limits at low flows. The flows corresponding to these limits bound the core flows during normal operations for both SLO and two loop operation. For SLO, the flow increase is bounded by the increase for two loop operation. For flow runout events initiated from below 30% core flow, the final core flow and therefore the change in CPR, is bounded by the analysis results for two loop operation at 30% core flow. This is due to the limited flow increase when the recirculation pumps are at slow speed for two loop operation. Therefore, the extension of the flow-dependent limits at low flows does not involve a significant reduction in the margin of safety.

g) This change consists of revisions to the $MCPR_f$ operating limits. The revised limits are defined for specific modes of operation and are based on ANF's methodology. The revised $MCPR_f$ limits show both reductions and increases relative to Cycle 4. However, the ANF Grand Gulf Unit 1 Cycle 5-specific safety analyses ensure that the safety limit is protected.

The $MCPR_f$ limits consist of two curves corresponding to Non-Loop Manual and Loop Manual modes of operation. For the Non-Loop Manual modes, the limiting flow runout event consists of a two loop runout whereas for the Loop Manual mode, the limiting event consists of a one loop runout. The $MCPR_f$ operating limits are constructed based on a number of conservative assumptions: 1) the increase in flow rates for both one and two loop runout events are conservative, 2) the ANF analysis assumes a conservative rod-line for the limiting flow runout event, and 3) the $MCPR_f$ limits include an added conservatism to allow for possible performance variations in subsequent cycles.

With the plant initially at the revised $MCPR_f$ operating limit, the limiting flow runout event, for both Non-Loop Manual and Loop Manual operations, will result in a final CPR at or above the MCPR safety limit. This ensures that an adequate margin of safety is available. Therefore, the revision of the $MCPR_f$ operating limits does not involve a significant reduction in the margin of safety.

h) This change consists of revisions to the $MCPR_p$ operating limits. As a result of this change, increases in the Cycle 4 $MCPR_p$ operating limits are observed at the low power/high flow and high power statepoints. Cycle 5 analyses have demonstrated that the limiting events will result in a minimum CPR which is at or above the MCPR safety limit. Therefore, the revision of the $MCPR_p$ operating limits does not involve a significant reduction in the margin of safety.

i) This change introduces exposure-dependent MCPR operating limits for Cycle 5. This change only redefines the MCPR operating limits as a function of cycle exposure. Cycle 5 analyses have demonstrated that the limiting events will result in a minimum CPR which is at or above the MCPR safety limit. Therefore, the introduction of the $MCPR_e$ operating limits does not involve a significant reduction in the margin of safety.

j) This change consists of a revision to the power/flow map consistent with the Grand Gulf Unit 1 operating domain. The revised map is constructed using a combination of the Maximum Extended Operating Domain boundaries established for previous cycles, the constant FCV position lines determined based on Grand Gulf startup test data, and the 80% and 100% rod lines defined in the Grand Gulf core stability-related technical specifications. The revised map is an analysis input for the Cycle 5 operating limits. Operation within these limits ensures that no safety limits will be challenged. Therefore, the revision of the power/flow map does not involve a significant reduction in the margin of safety.

k) These changes are administrative. Therefore, they do not involve a significant reduction in the margin of safety.

Therefore, these changes do not involve a significant reduction in the margin of safety.

The licensee has concluded that the proposed amendment meets the three standards in 10 CFR 50.92 and, therefore, involves no significant hazards consideration.

The NRC staff has made a preliminary review of the licensee's no significant hazards consideration analysis and agrees with the licensee's conclusion. Accordingly, the Commission proposes to determine that the requested amendment involves no significant hazards consideration.

*Local Public Document Room Location:* Hinds Junior College, McLendon Library, Raymond, Mississippi 39154

*Attorney for licensee:* Nicholas S. Reynolds, Esquire, Bishop, Liberman, Cook, Purcell and Reynolds, 1400 L Street, NW., 12th Floor, Washington, DC 20005-3502

*NRC Project Director:* Richard F. Dudley, Acting

**Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, City of Dalton, Georgia, Docket Nos. 50-424 and 50-425, Vogtle Electric Generating Plant, Units 1 and 2, Burke County, Georgia**

*Date of amendment request:* May 29, 1990

*Description of amendment request:* The proposed amendments would revise TS Tables 2.2-1 and 3.3-3 to add a second set of values for steam generator (SG) low-low and high-high instrumentation. The proposed changes are in accordance with modifications to be performed next refueling outage for each unit that will relocate the lower SG level instrument tap from 438 inches to 333 inches (measured from top of SG tubesheet).

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

In order to evaluate the effects of the revised low-low and high-high SG level setpoints, Westinghouse reanalyzed or evaluated the affected transients and accidents using the revised SG levels associated with the new setpoints and tap locations. The details of the evaluation can be found in the licensee's May 29, 1990 submittal. The evaluation concludes that each of the previously analyzed Final Safety Analysis Report (FSAR) accidents either remain bounded or are not significantly affected such that the results remain within the applicable acceptance criteria. The licensee states that:

The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated. The replacement transmitters are environmentally qualified and have reliability equivalent to the current transmitters such that a feedwater malfunction event resulting from transmitter error will be no more probable than already assumed in the FSAR. The consequences of previously evaluated accidents have either been re-evaluated or re-analyzed assuming the revised instrumentation and setpoints. The results were either bounded by previous

analyses or insignificantly changed. In all cases, the results were within the applicable design and safety criteria and the conclusions of the FSAR remain valid.

The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated. The level instrumentation will utilize lower taps; otherwise, its functions remain unchanged. Since the change does not introduce a new failure mode, a new or different kind of accident is not introduced.

The proposed change does not involve a significant reduction in a margin of safety. The effects of the change on transient and accident analyses have been evaluated and it has been determined that there are no significant changes in the results of previous analyses presented in the FSAR. The applicable design and safety criteria continue to be met, the conclusions reached in the FSAR remain valid and safety margins are not changed.

The Commission's staff has reviewed the licensee's no significant hazards consideration analysis and concurs with the conclusion. Accordingly, the Commission proposes to determine that the proposed amendments do not involve a significant hazards consideration.

*Local Public Document Room location:* Burke County Public Library, 412 Fourth Street, Waynesboro, Georgia 30830.

*Attorney for licensee:* Mr. Arthur H. Domby, Troutman, Sanders, Lockerman and Ashmore, Candler Building, Suite 1400, 127 Peachtree Street, NE., Atlanta, Georgia 30043.

*NRC Project Director:* David B. Matthews

**Houston Lighting & Power Company, City Public Service Board of San Antonio, Central Power and Light Company, City of Austin, Texas, Docket Nos. 50-498 and 50-499 South Texas Project, Units 1 and 2, Matagorda County, Texas**

*Date of amendment request:* May 11, 1990

*Description of amendment request:* The request proposes adding a specific technical specification (TS) for the main feedwater isolation valves (MFWIVs). Currently, the MFWIVs are considered as containment isolations. However, since the feedwater isolation valve penetration has only one automatic isolation valve, the action statement for the containment isolation valves cannot be met and the plant would be forced to begin or shutdown. The proposed TS is similar to those existing for other plants.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety. Based on the staff review, the proposed amendments will not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated. The accidents are stream line break, feedwater line break, or excess feedwater event. There are no changes to the valve functions or closure signals. The proposed change will not change any of the assumptions utilized in previously evaluated accidents and therefore does not represent a significant increase in the probability or consequences of these accidents.

(2) Create the possibility of a new or different kind of accident from any previously evaluated. The proposed change does not alter the design or operation of the Feedwater Isolation Valves or of the South Texas Project, Units 1 and 2. Therefore, the proposed change does not create the possibility of a new or different kind of accident.

(3) Involve a significant reduction in a margin of safety. The margin of safety does not significantly change because there is no change in the design or operation of the Feedwater Isolation Valves.

For the reasons stated above, the staff believes these proposed amendments involve no significant hazards consideration determination.

*Local Public Document Rooms Location:* Wharton County Junior College, J. M. Hodges Learning Center, 911 Boling Highway, Wharton Texas 77488

*Attorney for licensee:* Jack R. Newman, Esq., Newman & Holtzinger, P.C., 1615 L Street, NW., Washington, DC 20036

*NRC Project Director:* Christopher I. Grimes

**Iowa Electric Light and Power Company, Docket No. 50-331, Duane Arnold Energy Center, Linn County, Iowa**

*Date of amendment request:* March 31, 1988

*Description of amendment request:* The proposed amendment would revise the Duane Arnold Energy Center Technical Specifications (TSs) to change iodine reporting requirements for consistency with NRC Generic Letter 85-19 and to make other administrative changes to correct, clarify and update portions of the TSs. Other requested changes to update staff qualification and training requirements have been subsequently addressed in a separate action in response to licensee submittals dated November 3, 1989 and February 26, 1990.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated, (2) Create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) Involve a significant reduction in a margin of safety.

The licensee has provided the following no significant hazards considerations determination in concluding that the proposed amendment:

(1) Does not involve a significant increase in the probability or consequences of an accident previously evaluated. The amendment will change iodine reporting requirements to be consistent with NRC guidelines and make other administrative changes. None of these changes can have any effect on probability or consequences of an accident previously evaluated.

(2) Does not create the possibility of a new or different kind of accident. No changes are being made to existing plant equipment, operating procedures, safety limits, limiting safety system settings, or limiting conditions for operation. The proposed changes to surveillance requirements are administrative in nature.

(3) Does not involve a significant reduction in a margin of safety. No changes are being made to existing plant equipment, operating procedures, safety limits, limiting safety system settings, or limiting conditions for operation. The proposed changes to surveillance requirements are administrative in nature. Changing the iodine reporting requirements, making the staff qualification and training requirements consistent, and making other administrative changes enhances the existing Technical Specifications and do not reduce any margin of safety.

The NRC staff has reviewed the above analysis and agrees with the licensee's conclusions. Therefore, the staff proposes to determine that the requested changes do not involve a significant hazards consideration.

*Local Public Document Room location:* Cedar Rapids Public Library,

500 First Street, S.E., Cedar Rapids, Iowa 52401.

*Attorney for licensee:* Jack Newman, Esquire, Kathleen H. Shea, Esquire, Newman and Holtzinger, 1615 L Street, NW., Washington, DC 20036.

*NRC Project Director:* John N. Hannon.

**Iowa Electric Light and Power Company, Docket No. 50-331, Duane Arnold Energy Center, Linn County, Iowa**

*Date of amendment request:* July 27, 1988, as revised June 29, 1990

*Description of amendment request:* The proposed amendment would revise the Duane Arnold Energy Center Technical Specifications (TSs) to incorporate requirements for augmented inservice inspections of piping covered under the scope of NRC Generic Letter (GL) 88-01. Also, TSs for coolant leakage detection systems would be revised to reflect the current NRC staff position, which has been modified subsequent to the issuance of GL 88-01. In addition, the proposed changes would specify the beginning dates for the current 10-year intervals for the Inservice Inspection and Testing programs and would delete an interim requirement for an ultrasonic testing program for the recirculation system inlet nozzle safe-ends. The inspection frequency for the safe-ends will remain the same and they will be covered under the augmented inservice inspection program required by GL 88-01.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards (10 CFR 50.92(c)) for determining whether a significant hazards consideration exists. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated, (2) Create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) Involve a significant reduction in a margin of safety.

The licensee has provided the following no significant hazards consideration determination in concluding that the proposed amendment:

(1) does not involve a significant increase in the probability or consequences of an accident previously evaluated because the proposed changes to Section 4.6.G are administrative in nature and thereby cannot increase the probability or consequences of an accident. The addition of a reference to the requirements of NRC Generic Letter 88-01 (which in turn references the requirements of NUREG-0313, Revision 2) in the surveillance requirements provides specific guidance on material selection and processing guidelines for the reactor coolant pressure boundary piping, and is an enhancement to the ISI Program.

The requirement for inspection of the recirculation system inlet safe-end assemblies is no longer necessary as these items will be inspected at the same frequency under the scope of the program required by Generic Letter 88-01.

The proposed changes to Sections 3.2.E, 3.6.C and 4.6.C will serve to clarify operability requirements of the coolant leakage detection system instrumentation, reduce the allowed out-of-service time for the coolant leakage sump system and provide more conservatism in the Technical Specifications. This will furnish added assurance that any structural degradation of the reactor coolant pressure boundary (RCPB) will be detected on a timely basis so that corrective actions can be made before such degradation can become sufficiently severe to jeopardize the integrity of the RCPB.

Therefore, addition of these surveillance requirements does not increase the probability of occurrence or consequences of any event previously evaluated in the DAEC Final Safety Analysis Report (FSAR).

(2) does not create the possibility of a new or different kind of accident because the proposed changes have no impact on the physical configuration or operating procedures of the DAEC. These changes impact only the administration of the ISI Program, clarify operability requirements of the coolant leakage detection systems, provide more conservative leakage limits and reduce the allowed out-of-service time of the coolant leakage detection systems. Therefore, the proposed changes are not deemed to create the possibility of a new or different kind of accident from any accident previously evaluated in the DAEC FSAR.

(3) does not involve a significant reduction in the margin of safety because the proposed changes to section 4.6.G are administrative in nature and do not affect the margin of safety. As stated in the bases of Technical Specification 3.6.G and 4.6.G:

The program was established to provide reasonable assurance that no LOCA would occur at the DAEC as a result of leakage or breach of pressure-containing components and piping of the reactor coolant system, portions of the ECCS, and portions of the reactor coolant associated auxiliary systems.

The requirements for augmented inservice inspections of piping covered under the scope of Generic Letter 88-01 are an enhancement to the ISI program and performance of the required inspections will not reduce the margin of safety as defined in the Technical Specification bases.

The bases for Technical Specification 3.6.C state:

Leakage less than the magnitude specified can be detected reasonably in a matter of a few hours utilizing the available leakage detection schemes, and if the origin cannot be determined in a reasonably short time the plant should be shut down to allow further investigation and corrective action.

Reducing the allowed out-of-service time for the coolant leakage sump system and providing more conservative coolant leakage limits will not degrade the ability of the DAEC to detect leakage and thus, will not reduce the margin of safety as defined in the Technical Specification bases.

The proposed administrative changes will not increase the probability or the consequences of any previously analyzed accident, introduce any new or different kind of accident, or reduce the existing margin of safety.

The NRC staff has reviewed the above analysis and agrees with the licensee's conclusions. Therefore, the staff proposes to determine that the requested changes do not involve a significant hazards consideration.

*Local Public Document Room location:* Cedar Rapids Public Library, 500 First Street, S.E., Cedar Rapids, Iowa 52401.

*Attorney for licensee:* Jack Newman, Esquire, Kathleen H. Shea, Esquire, Newman and Holtzinger, 1615 L Street, NW., Washington, DC 20036.

*NRC Project Director:* John N. Hannon.

**Iowa Electric Light and Power Company, Docket No. 50-331, Duane Arnold Energy Center, Linn County, Iowa**

*Date of amendment request:* June 19, 1990

*Description of amendment request:* The proposed amendment would revise the Duane Arnold Energy Center Technical Specifications (TSs) to reflect the use of advanced GE8x8NB-3 (GE10) fuel for Cycle 11 operation. Specifically, the proposed change revises the Safety Limit Minimum Critical Power Ratio (MCPR) from 1.04 to 1.07 for two recirculation loop operation, and from 1.07 to 1.10 for single loop operation. This change is necessary due to the conservative application of the C-lattice Safety Limit MCPR values to the GE10 fuel design.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated, (2) Create the possibility of a new or different kind of accident from any accident previously evaluated, or (3)

Involve a significant reduction in a margin of safety.

The licensee has reviewed the proposed request and has provided the following no significant hazards consideration determination:

1. The proposed TS change will not involve any significant increase in the probability or consequences of an accident previously evaluated because no changes are being made to the facility or its equipment other than the introduction of the GE8x8NB-3 fuel. This fuel design evolved from the GE8x8NB and incorporates two unique features: interactive channel design and an offset lower tie plate. This new design has been analyzed for two loop and single loop operation using NRC-approved methodologies. These analyses have shown that the fuel design changes have not resulted in any major deviations from previously approved fuel performance criteria.

Changes in the fuel design, however, require application of the C-lattice Safety Limit MCPR. Use of this higher Safety Limit is conservative because the actual design of the GE10 fuel is bounded by the C-lattice design.

Therefore the change to the Safety Limit MCPR will not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed TS change will not create the possibility of a new or different kind of accident from any previously evaluated because the facility is not being changed except for the introduction of the GE10 fuel. This fuel has been analyzed by GE using NRC-approved methodologies and approved by the NRC in their SER to Amendment 21 to GESTAR II. The Safety Limit MCPR for the GE10 fuel satisfies all fuel performance criteria specified in the Final Safety Analysis Report.

3. The proposed change will not involve a reduction in the margin of safety. Analyses show that all standards of safety described in the FSAR and Technical Specifications are still met with the new fuel design and revised Safety Limit MCPR.

The NRC staff has reviewed the licensee's analysis and agrees with the licensee's conclusions. Therefore, the staff proposes to determine that the requested changes do not involve a significant hazards consideration.

*Local Public Document Room location:* Cedar Rapids Public Library, 500 First Street. S.E., Cedar Rapids, Iowa 52401.

*Attorney for licensee:* Jack Newman, Esquire, Kathleen H. Shea, Esquire, Newman and Holtzinger, 1615 L Street, NW., Washington, DC 20036.

*NRC Project Director:* John N. Hannon.

**Maine Yankee Atomic Power Company, Docket No. 50-309, Maine Yankee Atomic Power Station, Lincoln County, Maine**

*Date of amendment request:* June 19, 1990

*Description of amendment request:* The proposed amendment would establish a specification for maximum reactor coolant primary-to-secondary leakage from any one steam generator of 0.15 gallons per minute and deletes the current specification for total primary-to-secondary maximum leakage from all steam generators of 1.0 gallons per minute.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards considerations if operation of the facility in accordance with a proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; (2) Create the possibility of a new or different kind of accident from an accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee addressed the above three standards in the amendment application. In regard to the three standards, the licensee provided the following analysis.

(1) Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

Steam generator leakage has not been used in any of the Final Safety Analysis Report (FSAR) Chapter 14 analyses and thus will not affect the current safety analyses. Assuring that an adequate leakage limit exists that initiates corrective actions in a timely manner is important to ensuring a steam generator tube rupture does not take place.

(2) Use of the modified specification would not create the possibility of a new or different kind of accident from any accident previously evaluated.

Decreasing the leakage rate specification does not create the possibility of a new or different kind of accident since the proposal involves neither a hardware modification nor the creation of a unique operating condition.

(3) Use of the modified specification would not involve a significant reduction in a margin of safety.

Decreasing the steam generator leakage rate specification does not change the results of any of the FSAR Chapter 14 events.

Rather it is intended to provide a greater margin of safety since it is more conservative than the present value.

The staff has reviewed the licensee's no significant hazards consideration determination analysis. Based upon this review, the staff agrees with the licensee's no significant hazards consideration. Based upon the above discussion, the staff proposes to determine that the proposed change does not involve a significant hazards consideration.

*Local Public Document Room location:* Wiscasset Public Library, High Street, P.O. Box 367, Wiscasset, Maine 04578

*Attorney for licensee:* John A. Ritsher, Esquire, Ropes and Gray, 255 Franklin Street, Boston, Massachusetts 02110

*NRC Acting Project Director:* Victor Nerses

**Nebraska Public Power District, Docket No. 50-298, Cooper Nuclear Station, Nemaha County, Nebraska**

*Date of amendment request:* June 1, 1990

*Description of amendment request:* The proposed amendment would change the Cooper Nuclear Station Technical Specifications by: (1) Deleting the existing limit of 3.25 times the surveillance interval for three successive surveillances, (2) utilizing the suggested wording of Generic Letter 89-14 to define the 25 percent surveillance allowance, and (3) incorporating the suggested wording for the Bases from the Generic Letter into the Cooper Technical Specifications.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in the margin of safety. In accordance with the requirements of 10 CFR 50.92, the licensee has provided the following no significant hazards evaluation:

1. Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

*Evaluation:*

The proposed amendment would remove from the plant Technical Specifications the limit on the combined time interval for any three consecutive surveillance intervals to not exceed 3.25 times the specified surveillance interval. Removal of this 3.25 limit on surveillance extension does not involve a physical change or alteration to any plant component or system which could cause the probability of an accident or transient to increase.

Plant Technical Specifications will continue to limit the extension of surveillance intervals by no more than 25 percent of the

intervals. This 25 percent allowance can realize a safety benefit by permitting surveillance intervals to be extended at times when plant conditions may not be suitable for performing that surveillance such as transient plant operating conditions or equipment being out of service for ongoing surveillance or maintenance. In such cases the safety benefit obtained by use of the 25 percent allowance for extending the surveillance interval would not be restricted by the 3.25 limit which is being removed by this license amendment.

Existing equipment surveillance requirements are not affected by this license amendment and the extension of surveillance intervals will continue to be limited by the allowable 25 percent extension limit discussed above. The equipment on which the surveillances are being performed will continue to be proven operable and will continue to be available to respond to and mitigate any previously evaluated transients or accidents.

For the reason above, the proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

*Evaluation:*

The proposed license amendment does not change the plant equipment configuration or operation and is administrative in nature. The proposed license amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed license amendment involve a significant reduction in the margin of safety?

*Evaluation:*

The proposed amendment would remove from the plant Technical Specifications the limit on the combined time interval for any three consecutive surveillance intervals to not exceed 3.25 times the specified surveillance interval. Surveillance intervals will continue to be constrained by the 25 percent extension limitation retained in the plant Technical Specifications. This surveillance limitation is based on engineering judgement and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the surveillance requirements. Removal of the 3.25 limit will allow more flexibility in the performance of equipment surveillance around certain plant conditions that may present increased likelihood of unnecessary transients or challenges to safety systems. The proposed license amendment does not change any plant operating setpoint or limiting plant safety system setting and does not involve a significant reduction in the margin of safety.

Based on the previous discussion, the licensee concluded that the proposed amendment request does not involve a significant increase in the probability of a new or different kind of accident from any accident previously evaluated; nor create the possibility of a new or different kind of accident from any accident previously evaluated; nor involve a significant reduction in the required margin of safety. The NRC staff has reviewed the licensee's no significant hazards considerations determination and agrees with the licensee's analysis. The staff therefore, has made a proposed determination that the licensee's request does not involve a significant hazards consideration.

*Local Public Document Room location:* Auburn Public Library, 118 15th Street, Auburn, Nebraska 68305

*Attorney for licensee:* Mr. G.D. Watson, Nebraska Public Power District, Post Office Box 499, Columbus, Nebraska 68601-0499

*NRC Project Director:* Richard F. Dudley, Acting

**Northeast Nuclear Energy Company, Docket No. 50-245, Millstone Nuclear Power Station, Unit No. 1, New London County, Connecticut**

*Date of amendment request:* June 18, 1990

*Description of amendment request:* The proposed change to the Technical Specifications (TS) would add a requirement to ensure the operability and periodic testing of a modification to the 14A to 14G tie breaker. This is one of the modifications made as a result of a gas turbine generator (GTG) load study that demonstrated the potential for loading the GTG beyond its capacity.

*Basis for proposed no significant hazards consideration determination:* The licensee has reviewed the proposed change, in accordance with 10 CFR 50.92 and has concluded and the NRC agrees, that it does not involve a significant hazards consideration in that this change would not:

1. Involve a significant increase in the probability or consequences of an accident previously analyzed. The purpose of this change is to add formal operability and surveillance requirements to Technical Specification 3/4.5.C regarding the 14A to 14G tie breaker trip. This trip protects the GTG from being overloaded during a design basis event. Placing formal Technical Specification requirements on recent GTG modifications has no negative impact on the consequences of any transient or accident. Neither does it increase the probability of any design basis event. Furthermore, all design basis accidents can be acceptably mitigated even assuming no credit for FWCI operation, and loss of the GTG is an analyzed event.

2. Create the possibility of a new or different kind of accident from any previously analyzed. Modifying the TS to add operability and surveillance requirements does not, in and of itself, modify plant response to any operational or transient event. Nor does it create a new or different kind of accident.

3. Involve a significant reduction in a margin of safety. This change has no impact on the margin of safety as defined in the basis for any Technical Specification for the following reasons: (a) the added operability requirements are consistent with the GTG modifications and are consistent with the assumptions and analysis of that change, and (b) the added surveillance requirement (once per refuel outage) is consistent with other ECCS simulated automatic actuation testing done in Section 4.5 of the Millstone Unit No. 1 Technical Specifications.

*Local Public Document Room location:* Learning Resources Center, Thomas Valley State Technical College, 574 New London Turnpike, Norwich, Connecticut 06360.

*Attorney for licensee:* Gerald Garfield, Esquire, Day, Berry & Howard, Counselors at Law, City Place, Hartford, Connecticut 06103-3499.

*NRC Project Director:* John F. Stolz

**Northeast Nuclear Energy Company, et al., Docket No. 50-336, Millstone Nuclear Power Station, Unit No. 2, New London County, Connecticut**

*Date of amendment request:* April 10, 1990 - revised June 26, 1990

*Description of amendment request:* By an application dated April 10, 1990 and revised in its entirety by letter dated June 26, 1990, Northeast Nuclear Energy Company (NNECO) proposed to amend the Technical Specifications (TS) for Millstone Unit 1. The amendment would change the definition for Core Alterations in Section 1.12 to clarify the scope of the movement or manipulation of a component during core alteration. The proposed definition would be consistent with the Revised Standard Technical Specifications developed by the Combustion Engineering Owners Group.

*Basis for proposed no significant hazards consideration determination:* The licensee has reviewed the proposed changes in accordance with 10 CFR 50.92 and has concluded and the staff agrees that they do not involve a significant hazards consideration in that these changes would not:

1. Involve a significant increase in the probability of occurrence of an accident previously analyzed. The proposed definition of "Core Alteration" will continue to ensure that positive reactivity changes cannot occur while core alteration is suspended. There would be no design basis accidents adversely affected due to the changes.

2. Create the possibility of a new or different kind of accident from any previously analyzed. Since there are no changes in the way the plant is operated, the potential for an unanalyzed accident is not created. No new failure modes are introduced.

3. Involve a significant reduction in the margin of safety. Since the proposed change

would not affect the consequences of any accident previously analyzed, there would be no reduction in a margin of safety.

Based on the above, the staff proposes to determine that the proposed changes do not involve a significant hazards consideration.

*Local Public Document Room location:* Learning Resources Center, Thames Valley State Technical College, 574 New London Turnpike, Norwich, Connecticut 06360.

*Attorney for licensee:* Gerald Garfield, Esquire, Day, Berry & Howard, City Place, Hartford, Connecticut 06103-3499.

*NRC Project Director:* John F. Stolz

**Northeast Nuclear Energy Company, et al., Docket No. 50-336, Millstone Nuclear Power Station, Unit No. 2, New London County, Connecticut**

*Date of amendment request:* June 26, 1990

*Description of amendment request:* The proposed amendment would change the Technical Specifications related to cycle-specific parameters. The propose Technical Specification changes would relocate certain cycle-specific parameters to the Core Operating Limits Report. This change would be consistent with Generic Letter 88-16, dated October 4, 1988, which provided guidance to allow relocation of certain cycle dependent core operating limits from the Millstone Unit No. 2 Technical Specifications.

*Basis for proposed no significant hazards consideration determination:* The licensee has reviewed the proposed changes in accordance with 10 CFR 50.92 and has concluded and the staff agrees that they do not involve a significant hazards consideration in that these changes would not:

1. Involve a significant increase in the probability of occurrence of an accident previously analyzed. The removal of cycle-specific core operating limits from Technical Specifications has no influence or impact on the probability or consequences of a Design Basis Accident. The cycle-specific core operating limits, although not in Technical Specifications, would be followed in the operation of Millstone Unit No. 2. The proposed amendment would still require exactly the same actions to be taken when or if limits are exceeded as is required by current Technical Specifications.

Each accident analysis addressed in the FSAR would be examined with respect to changes in cycle-dependent parameters, which are obtained from application of the NRC-approved reclosed design methodologies, to ensure that the transient evaluation of new reloads would be bounded by previously accepted analyses. This examination, which would be performed per requirements of 10 CFR 50.59, ensures that future reloads would not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any previously analyzed. As stated above, the removal of the cycle-specific variables has no influence or impact, nor would it contribute in any way to the probability or consequences of an accident. No safety-related equipment, safety function, or plant operations would be altered as a result of this proposed change. The cycle-specific variables are calculated using the NRC-approved methods and submitted to the NRC to allow the Staff to continue to trend the value of these limits. The Technical Specifications would continue to require operation within the required core operating limits and appropriate actions will be taken when or if limits would be exceeded.

Therefore, the proposed amendment would not in any way create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in the margin of safety. The margin of safety would not be affected by the removal of cycle-specific core operating limits from the Technical Specifications. The margin of safety presently provided by the current Technical Specifications remains unchanged. Appropriate measures would exist to control values of these cycle-specific limits. The proposed amendment continues to require operation within the core limits as obtained from the NRC-approved reload design methodologies and appropriate actions to be taken when or if limits are violated would remain unchanged.

The development of the limits for future reloads would continue to conform to those methods described in NRC-approved documentation. In addition, each future reload would involve a 10 CFR 50.59 safety review to assure that operation of the unit within the cycle specific limits would not involve a significant reduction in a margin of safety.

Therefore, the proposed changes do not impact the operation of Millstone Unit No. 2 in a manner that involves a reduction in the margin of safety.

Based on the above, the staff proposes to determine that the proposed changes do not involve a significant hazards consideration.

*Local Public Document Room location:* Learning Resources Center, Thames Valley State Technical College, 574 New London Turnpike, Norwich, Connecticut 06360.

*Attorney for licensee:* Gerald Garfield, Esquire, Day, Berry & Howard, City Place, Hartford, Connecticut 06103-3499.

*NRC Project Director:* John F. Stolz

**Northeast Nuclear Energy Company, et al., Docket No. 50-423, Millstone Nuclear Power Station, Unit No. 3, New London County, Connecticut**

*Date of amendment request:* June 13, 1990

*Description of amendment request:* The proposed amendment would change Millstone Unit 3 Technical Specification (TS) 4.0.2 by deleting the requirement that the combined time interval for any three consecutive surveillance intervals is not to exceed 3.25 times the specific surveillance interval.

*Basis for proposed no significant hazards consideration determination:* Technical Specification 4.0.2 includes the provision that allows a surveillance interval to be extended by 25 percent of the specified time interval. This extension provides flexibility for scheduling the performance of surveillances and to permit consideration of plant operating conditions that may not be suitable for conducting a surveillance at the specified time interval. Such operating conditions include transient plant operation or ongoing surveillance or maintenance activities. Specification 4.0.2 further limits the allowance for extending surveillance intervals by requiring that the combine time interval for any three consecutive surveillances not exceed 3.25 times the specified time interval. The purpose of this provision is to assure that surveillances are not extended repeatedly as an operational convenience to provide an overall increase in the surveillance interval.

Experience has shown that the 18-month surveillance interval, with the provision to extend it by 25 percent, is usually sufficient to accommodate normal variations in the length of a fuel cycle. However, the NRC staff has routinely granted requests for one-time exceptions to the 3.25 limit on extending refueling surveillances because the risk of safety is low in contrast to the alternative of a forced shutdown to perform these surveillances. Therefore, the 3.25 limitation on extending surveillances has not been a practical limit on the use of the 25-percent allowance for extending surveillances that are performed on a refueling outage basis.

Extending surveillance intervals during plant operation can also result in a benefit to safety when a scheduled surveillance is due at a time that is not suitable for conducting the surveillance. This may occur when transient plant operating conditions exist or when safety systems are out of service for maintenance or other surveillance activities. In such cases, the benefit to safety of extending a surveillance interval would exceed any safety benefit derived by limiting the use of 25-percent allowance to extend a surveillance. Furthermore, there is the administrative burden associated with tracking the use of the 25-percent allowance to ensure compliance with the 3.25 limit.

On August 21, 1989, the NRC Staff issued Generic Letter (GL) 89-14, "Line-Item Improvements in Technical Specifications-Removal of the 3.25 Limit on Extending Surveillance Intervals." Generic Letter 89-14 concludes that it is appropriate to delete the 3.25 factor for surveillance intervals for Technical Specification for all power reactor licensees.

Title 10 CFR Part 50, Section 50.92 contains standards for determining whether a proposed license amendment involves significant hazards considerations. In this regard, the licensee states in their June 13, 1990 application that, the proposed change does not involve a significant hazards consideration because the change would not:

1. Involve a significant increase in the probability or consequences of an accident previously analyzed. The proposed change removes the 3.25 limit on extending surveillance intervals and adds the bases statements for the existing 25 percent allowance, in accordance with the guidance contained in Generic Letter 89-14. Removal of the 3.25 limit on extending surveillance intervals provides a safety benefit by allowing a surveillance interval to be extended at a time that conditions are not suitable for performing the surveillance (i.e., transient plant operating conditions or other ongoing surveillance or maintenance activities). The safety benefit of allowing unrestricted use of the 25 percent allowance to extend a surveillance interval in such cases offsets any benefit derived by limiting three consecutive surveillance intervals to the 3.25 limit. This change does not involve any change to the actual surveillance requirements, other than a small increase in the maximum allowable surveillance interval. The increase in the probability of failure of components and systems that would result from longer average surveillance intervals would not significantly impact the probability of any accident. The reliability ensured through surveillance activities following the proposed change would not be significantly degraded beyond that obtained from surveillances performed subject to the 3.25 limit. Therefore, this change does not significantly increase the probability of occurrence or the consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any previously evaluated. The proposed change does not alter the method of operating the plant or change the way the surveillance requirement is performed. The proposed change allows a surveillance interval to be extended at a time that conditions are not suitable for performing the surveillance. No new failure modes are introduced. Therefore, this change has no effect on the possibility of creating a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in the margin of safety. Removal of the 3.25 limit on extending surveillance intervals provides a positive effect on safety by allowing a surveillance interval to be extended at a time that conditions are not suitable for performing the surveillance. The safety benefit of allowing the use of the 25 percent allowance to extend a surveillance interval in such cases outweighs any benefit derived from limiting three consecutive surveillance intervals to the 3.25 limit. This change does not involve any change to the actual surveillance requirements. The reliability ensured through surveillance activities is not significantly degraded beyond that obtained from the specified surveillance interval. Therefore, it is concluded that operation of the facility in accordance with the proposed change does not involve a significant reduction in the margin of safety.

The NRC staff has reviewed, and concurs in, the licensee's statement regarding significant hazards considerations associated with the June 13, 1990 application. Accordingly, the staff has made a proposed determination that the application for amendment involves no significant hazards consideration.

*Local Public Document Room location:* Learning Resources Center, Thames Valley State Technical College, 574 New London Turnpike, Norwich, Connecticut 06360.

*Attorney for licensee:* Gerald Garfield, Esquire, Day, Berry & Howard, City Place, Hartford, Connecticut 06103-3499.

*NRC Project Director:* John F. Stolz

**Omaha Public Power District, Docket No. 50-285, Fort Calhoun Station, Unit No. 1, Washington County, Nebraska**

*Date of amendment request:* January 26, 1990 as supplemented May 10 and June 18, 1990

*Description of amendment request:* The proposed amendment involves the following changes: a. Increasing the reactor vessel refueling boron concentration from 1800 to 1900 ppm, b. Suspending boron and chloride sampling in the reactor vessel when all fuel has been removed from the reactor vessel, c. Allowing spent fuel assemblies with limited exposure to be stored in Region 2 of the spent fuel pool, if a full length Control Element Assembly is inserted in the fuel assembly prior to the move to Region 2, d. Allowing spent fuel transfer directly from the reactor core to the spent fuel pool Region 2, and e. Deleting the requirement to provide a fuel performance report after each cycle of operation.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety. The licensee has submitted the following no significant hazards determination:

1. Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

a. The proposed license amendment will revise the refueling boron concentration to ensure the existence of both a 5% change in reactivity or greater shutdown margin with all control element assemblies (CEAs) withdrawn from the core and a dilution time to critical which is greater or equal to 30 minutes. Therefore, the proposed license amendment does not increase the probability or consequences of a previously evaluated accident.

b. The proposed license amendment will allow for the suspension of boron and chloride sampling during the time the fuel is removed from the reactor vessel with no changes in specifications. Since the fuel source is removed, shutdown margin in the reactor vessel is not required and hence, boron sampling is not required and the mechanical design properties of the fuel or reactor coolant system piping are not subject to potential degradation due to intergranular stress corrosion cracking potentially induced by a high chloride level. Therefore, the proposed license amendment does not increase the probability or consequences of a previously evaluated accident.

c. The proposed license amendment will allow the storage of fuel not meeting the burnup criteria of the current Technical Specification to be stored in Region 2 of the spent fuel pool provided a CEA is inserted and the assembly burnup meets the acceptance criteria of the proposed revised Technical Specification, Figure 2-10. The Region 2 racks have been analyzed to ensure the minimum 0.95 $K_{infinity}$ margin is maintained. Therefore, the proposed license amendment does not increase the probability or consequences of a previously evaluated accident.

d. The proposed license amendment will allow the direct transfer of fuel from the reactor core to Region 2 of the spent fuel pool provided all procedures have been completed and the assembly burnup meets the acceptance criteria with no changes in administrative specifications. The final storage location of any given fuel element will be the same using a one-step or a two-step transfer process. Therefore, the proposed license amendment does not increase the probability or consequences of a previously evaluated accident.

e. The proposed license amendment will implement a previously approved revision to the Technical Specifications. Therefore, the proposed license amendment does not

increase the probability or consequences of a previously evaluated accident.

2. Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed amendments do not address a new or different kind of accident because no new or different modes of operation are proposed for the plant. The use of the proposed revised Technical Specifications will not result in the possibility of a new or different kind of accident. Therefore, the proposed license amendments do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed amendment involve a significant reduction in margin of safety?

a. Specifications involving the minimum refueling shutdown margin are maintained above the minimum required margin and the dilution time to critical conforms to current plant conditions. Increasing the boron concentration ensures that the minimum shutdown margin is maintained. Therefore, the proposed license amendment does not reduce the margin of safety.

b. Specifications involving the boron sampling ensure that the shutdown margin conforms to current plant conditions. Since the fuel source is removed, shutdown margin in the reactor vessel is not required; and hence, boron sampling is not required. The fuel manufacturer's chloride chemistry requirements are met by sampling of the Spent Fuel Pool during the period the core is offloaded. This maintains the mechanical design properties of the fuel. Consolidation of all the boron and chloride sampling requirements in one location in the Technical Specifications ensures compliance of sampling requirements. Therefore, the proposed license amendment does not reduce the margin of safety.

c. Specifications involving the storage of spent fuel in Region 2 of the storage pool conform to current plant conditions. Storage procedures contain strict administrative requirements and burnup requirements which are independently verified as acceptable. Therefore, the proposed license amendment does not reduce the margin of safety.

d. Administrative specifications involving the transfer of spent fuel to the storage pool conform to current plant conditions. Changes in the fuel transfer procedures contain strict administrative procedures and ensure that the burnup requirement are verified as acceptable. Therefore, the proposed license amendment does not reduce the margin of safety.

e. The deletion of the fuel performance report is an administrative specification. Therefore, the proposed license amendment does not reduce the margin of safety.

The NRC staff has reviewed the licensee's no significant hazards determination and agrees with the licensee's analysis. The staff has, therefore, made a proposed determination that the licensee's request does not involve a significant hazards consideration.

*Local Public Document Room location:* W. Dale Clark Library, 215 South 15th Street, Omaha, Nebraska 68102

*Attorney for licensee:* LeBoeuf, Lamb, Leiby, and MacRae, 1333 New Hampshire Avenue, NW., Washington, DC 20036

*NRC Project Director:* Richard F. Dudley, Acting

**Philadelphia Electric Company, Docket No. 50-352, Limerick Generating Station, Unit 1, Montgomery County, Pennsylvania**

*Date of amendment request:* July 11, 1990

*Description of amendment request:* The proposed amendment would modify the Technical Specifications (TS) for Limerick Generating Station, Unit 1 (LGS-1) to reflect a planned modification to install new suppression pool water level indication at the Remote Shutdown Panel (RSP) to support safe shutdown of the plant in the event of a fire. This modification is planned to be performed during the next (third) refueling outage for LGS, Unit 1, currently scheduled to begin in September 1990, based on a commitment in LGS Unit 1 Licensee Event Report (LER) No. 1-89-023, "Lack of Protected Suppression Pool Level and Temperature Indication in the Event of a Fire," dated May 5, 1989, and results in the need to add a new containment isolation valve to the appropriate TS Section. The planned modification will require changing the existing primary containment isolation valve arrangement for the Suppression Pool Level Monitoring System (SPLMS). Two new motor-operated valves will be installed. One of the new valves will be tagged HV-55-121 and will be used to isolate the existing electrical Division 2 SPLMS instrumentation and process lines. Existing motor-operated valve HV-55-121 will be retagged 55-1092 and left in place with the capability for manual operation. The power and control cables associated with this valve will be terminated at the new valve HV-55-121. The other new valve will be tagged HV-55-126 and will be used to isolate the new electrical Division 1 SPLMS level transmitter and its process line. Both new valves HV-55-121 and HV-55-126 will be primary containment isolation valves. Thus, these valves need to be added to the table of isolation valves in the TS that must be operable.

The proposed change is to TS Table 3.6.3-1, "Part A - Primary Containment Isolation Valves," TS page 3/4 6-28, to add the new outboard primary containment isolation valve, HV-55-126, to this table for penetration number 219A. TS Table 3.6.3-1 currently lists outboard primary containment isolation valve, HV-55-121, for penetration number 219A. Therefore, no change is required to this table for the new valve HV-55-121 since all requirements specified in TS Table 3.6.3-1 for existing valve HV-55-121 (to be converted to a non-containment isolation manual valve 55-1092) are applicable to the new valve.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards determination exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has provided an analysis of no significant hazards considerations with the request for the license amendment. The licensee's analysis of the proposed amendment against the three standards in 10 CFR 50.92 is reproduced below:

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed TS change reflects a planned modification to install a new electrical Division 1 suppression pool water level instrumentation loop. This planned modification will ensure the availability of suppression pool water level indication at the RSP to support safe shutdown methods A, C, and R for safe shutdown of the plant in the event of a fire. The existing electrical Division 2 SPLMS instrumentation loop will be available to support safe shutdown methods B and D in the event of a fire.

The planned modification, specifically, the addition of a new containment isolation valve on an instrument line, will not adversely affect the operation of any safety-related equipment of the plant. The original function of the SPLMS, as described in the FSAR, will remain unchanged, i.e., this planned modification does not involve any physical change to the existing channels of the SPLMS that are relied on for ECCS actuation, post-accident monitoring, or remote shutdown capability (in accordance with GDC 19 of 10 CFR 50, Appendix A).

The new level instrumentation loop will be powered from an electrical Division 1, Class 1E source. The increased loading on this power source will be negligible, and therefore, will have no effect on the ability of this Class 1E power source to perform its intended function. This planned modification will not use any instrumentation with accuracies or response characteristics that are different than the existing suppression pool level instrumentation. This planned modification will meet applicable construction standards, design, and material

requirements which are applicable to the existing systems associated with safe shutdown methods A, C, and R. The design of the new level instrumentation loop conforms to applicable criteria for physical separation, redundancy, and divisionalization. The new level instrumentation loop components will be environmentally qualified, dynamically qualified, qualified to Seismic Category I and Class 1E, and energized from onsite emergency power supplies in the event offsite power is lost. This planned addition of a new containment isolation valve is consistent with the design presently committed to in FSAR Section 6.2.4.3.1.3.1 and conforms to the design criteria specified in Safety Guide 1.11 as described in FSAR Section 6.2.4.3.1.5. This design provides an acceptable alternative to the explicit requirements of GDC 56 as approved by the NRC in Section 6.2.4.2 of NUREG-0991. This planned modification will not introduce any new failure mode and will not alter any assumptions previously made in evaluating the radiological consequences of an accident. The proposed change does not affect limiting safety system settings or operating parameters, and does not modify or add any initiating parameters that would cause an increase in the probability or consequences of an accident previously evaluated.

2. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed TS change reflects a planned modification to install new suppression pool water level indication at the RSP to support fire protection safe shutdown methods A, C, and R. This planned modification will not delete or modify the existing safe shutdown protection features, downgrade the support system performance necessary for reliable operation of equipment, reduce system redundancy or independence, or impose more severe testing requirements. This planned modification, specifically, the addition of a new containment isolation valve on an instrument line, will not introduce a new failure mode for any components in the existing systems associated with safe shutdown of the plant in the event of a fire. The new level instrumentation loop is divisionalized for electrical Division 1 as required for safe shutdown methods A, C, and R. The existing electrical Division 2 level instrumentation loop required no design changes to meet the requirements of safe shutdown methods B and D. The level instrument lines from the suppression pool will be provided with remote manual isolation valves in series with a locked open manual valve. The configuration will not permit containment atmosphere to escape in case of a valve failure. The new isolation valves will remain in an enclosed pump room which has provisions for any fluid leakage, and is serviced by the Standby Gas Treatment System. The new isolation valves will be safety-related, designed to Seismic Category I, and will be able to withstand containment design pressure and temperature. The proposed change does not involve any change to setpoints or operating parameters nor does it involve any potential initiating event that would create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed change does not involve a significant reduction in a margin of safety.

The proposed TS change reflects a planned modification to install new suppression pool water level indication at the RSP to support safe shutdown methods A, C, and R in the event of a fire. The original function of the SPLMS will remain unchanged, i.e., this planned modification, specifically, the addition of a new containment isolation valve on an instrument line, does not involve any physical change to the existing channels of suppression pool water level instrumentation that are relied on for ECCS actuation, post-accident monitoring, or remote shutdown capability (in accordance with GDC 19 of 10 CFR 50, Appendix A).

The design of the new primary containment isolation valve configuration will meet the existing design criteria for the SPLMS, the primary containment isolation system for instrument lines, and the CAC system, and therefore, will have no adverse impact on these systems. Accordingly, the existing margin of safety will be maintained. Therefore, the proposed change does not involve a reduction in a margin of safety.

The staff has reviewed the licensee's submittal and significant hazards analysis and concurs with the licensee's determination as to whether the proposed amendment involves a significant hazards consideration. Therefore, the staff proposes to determine that the proposed amendment involves no significant hazards consideration.

*Local Public Document Room location:* Pottstown Public Library, 500 High Street, Pottstown, Pennsylvania 19464.

*Attorney for licensee:* Conner and Wetterhahn, 1747 Pennsylvania Avenue, NW., Washington, DC 20006

*NRC Project Director:* Walter R. Butler

**Portland General Electric Company et al., Docket No. 50-344, Trojan Nuclear Plant, Columbia County, Oregon**

*Date of amendment request:* February 10, 1989

*Brief decription of amendment request:* The proposed amendment would revise Trojan Technical Specification (TTS) 3/4.6.1, "Containment Integrity", to delete the following sentence: "2. All equipment hatches are closed and sealed." This proposed change would relieve the licensee from performing verification of the closure and seal of the equipment hatches from within the containment when the reactor is at full power. Instead, verification would be performed after going to cold shutdown and before returning to full power per approved maintenance and test procedures.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has evaluated the proposed amendment against the standards of 10 CFR 50.92, and has determined the following:

1. Does the proposed license amendment involve a significant increase in the probability or consequence of an accident previously evaluated?

Including the verification of closure and seal of the equipment hatch in the exclusion to TSS Surveillance Requirement 4.6.1.1.a.1 does not involve a significant increase in the probability or consequence of an accident because the hatch is closed, sealed, and verified per MP 8-1 and leak tested per PET 5-2 to ensure that the requirements of 10 CFR Part 50, Appendix J are met. There is no identifiable mechanism that would cause the nuts securing the hatch bolts to loosen, thereby causing leakage past the seal.

The proper method for verifying that any containment penetration is "sealed" is to perform a leak test. As discussed above, the equipment hatch is subject to leak tests per the requirements of 10 CFR Part 50, Appendix J. This change does not alter the leak testing frequency, method, or acceptance criteria, but merely clarifies that this verification of sealing and closure need not be performed every 31 days.

2. Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

The containment mitigates the consequences of an accident and verification of its integrity is not related to accident creation.

The change proposed is an administrative change that does not alter the equipment hatch test frequency, test methods, or acceptance criteria.

3. Does the proposed license amendment involve a significant reduction in a margin of safety?

In accordance with the TTS and 10 CFR Part 50, Appendix J, the equipment hatch is tested at the peak Containment internal pressure following a design basis event (60 psig). This test is performed annually during refueling. No change to this testing is proposed. Instead, the TTS are merely being clarified to delete the implication that the equipment hatch sealing capability, i.e., leak rate, should be demonstrated every 31 days.

Since no change to equipment hatch testing is proposed, and because the current testing program complies within 10 CFR Part 50, Appendix J, no significant reduction in a margin of safety is involved.

The staff has reviewed the licensee's no significant hazards analysis and concurs with the licensee's conclusions. As such, the staff proposes to determine that the requested changes do not involve a significant hazards consideration.

*Local Public Document Room location:* Portland State University Library, 934 S.W. Harrison Street, P.O. Box 1151, Portland, Oregon 97207.

*Attorney for licensee:* Leonard A. Girard, Esq., Portland General Electric Company, 121 S.W. Salmon Street, Portland, Oregon 97204.

*NRC Project Director:* John T. Larkins, Acting

**Power Authority of the State of New York, Docket No. 50-333, James A. FitzPatrick Nuclear Power Plant, Oswego, New York**

*Date of amendment request:* April 4, 1990

*Description of amendment request:* The proposed amendment would delete the references to Footnote Number (9) in Technical Specification Table 4.2-2, "Minimum Test and Calibration Frequency for Core and Containment Cooling System" for the High Pressure Coolant Injection (HPCI) Subsystem Auto Isolation and for the Reactor Core Isolation Cooling (RCIC) Subsystem Auto Isolation, Items Number 5 and 7, respectively, in the table. The proposed change would result in deletion of the functional test requirements for the time delay relays and timers associated with the automatic isolation signals for the HPCI and RCIC Systems. These relays and timers were originally designed to initiate a time delay in the event of a steam line or packing leak so that the leak could be manually isolated prior to automatic isolation of the HPCI and RCIC steam supply piping. However, the relays and timers have not been calibrated nor functionally tested since initial plant startup and the feature is not incorporated into the various plant analyses. The time delay feature has, therefore, been defeated and the valves will shut immediately when the setpoint is reached.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has evaluated the proposed amendment against the standards provided above and has supplied the following information.

Operation of the James A. FitzPatrick Nuclear Power Plant in accordance with this proposed amendment would not involve a significant hazards consideration, as defined in 10 CFR 50.92, since the proposed changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated. The proposed changes to Table 4.2-2 remove the requirement for functional testing of the time delay relays and timers for the HPCI and RCIC automatic isolation signals.

The original design of the HPCI and RCIC automatic isolation signals included time delay devices for postulated steam supply line or packing leaks. Since the HPCI and RCIC steam supply piping are physically adjacent to the main steam supply piping where the steam lines penetrate the primary containment and for a portion of their route to their respective steam turbines, the steam leak detectors for both the HPCI and the RCIC systems could be activated by a leak in any of the steam lines. To prevent needless automatic isolation, time delays were incorporated into initial plant design to allow time to investigate leaks in the vicinity of the steam supply piping and effect manual isolation prior to automatic closure of the HPCI and/or RCIC steam supply valves.

The FitzPatrick Final Safety Analysis Report (FSAR) contains a discussion regarding the physical separation of the HPCI and RCIC steam lines and the location of the leak detectors. The potential for isolation of both steam lines as a result of a single steam leak was also considered. However, the use of time delay devices to provide time for assessment and manual isolation of the affected systems is not discussed. Also, the High Energy Line Break (HELB) analysis for the plant assumed no such time delay. In addition, since the HPCI and RCIC systems are not required to mitigate pipe breaks outside of the primary containment, simultaneous isolation of both systems, should it occur, is within the scope of the plant design basis.

Therefore, the proposed technical specification change to delete the timers is consistent with the present plant status, concurs with the design analysis described in the FSAR and with the HELB analysis, and would not result in an unanalyzed plant condition. Therefore, there is no significant increase in the probability or consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from those previously evaluated.

The surveillance test requirements which would be removed from the technical specifications by this amendment are related to time delays which were not incorporated into present plant accident analyses or transients described in the FSAR or in the HELB analysis. The operation of the HPCI and RCIC systems for various accidents and transients, as well as operation of the isolation signals, is described in the FSAR, which does not include a time delay for isolation on high steamline temperature. Therefore, removal of the requirement to perform surveillance tests associated with these switches will not create a new or different kind of accident.

3. Involve a significant reduction in the margin of safety.

The surveillance tests which would be removed from the technical specifications will not affect the margin of safety resulting from operation of the HPCI or RCIC systems, since operation of the time delays was not assumed in the accident analyses for the plant described in the FSAR or in the HELB analysis. Also, the timers are not required to operate in order for the HPCI or RCIC systems to perform their desired function and were not incorporated into the operational analysis for the HPCI or RCIC systems.

The staff has reviewed and agrees with the licensee's analysis of the significant hazards consideration determination. Based on the review and the above discussion, the staff proposes to determine that the proposed change does not involve a significant hazards consideration.

*Local Public Document Room location:* State University of New York, Penfield Library, Reference and Documents Department, Oswego, New York 13126.

*Attorney for licensee:* Mr. Charles M. Pratt, 1633 Broadway, New York, New York 10019.

*NRC Project Director:* Robert A. Capra

**Power Authority of The State of New York, Docket No. 50-286, Indian Point Nuclear Generating Unit No. 3, Westchester County, New York**

*Date of amendment request:* June 18, 1990

*Description of amendment request:* The licensee seeks to amend the Indian Point 3 (IP3) Technical Specifications (TS), Section 1.10 (Definitions), Section 3.6 (Containment Integrity), and Section 4.4.D (Air Lock Tests). The Technical Specifications are being revised to amend the definitions, LCO, and surveillance for the containment air locks to more clearly reflect and be consistent with the requirements of Westinghouse Standard Technical Specifications (WSTS).

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards considerations if operation of the facility in accordance with a proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has evaluated the proposed amendment against the standards provided above and has supplied the following information.

(1) Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated.

*Response:*

The proposed changes do not involve increase in the probability of a previously-analyzed accident. Since this request seeks to incorporate the requirements of the equivalent Westinghouse Standard Technical Specifications which have been evaluated to provide adequate safety, and is applicable to IP3, operation of IP3 in accordance with this proposed license amendment does not significantly increase the consequences of an accident previously evaluated.

(2) Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated.

*Response:*

Operation of Indian Point 3 in accordance with the proposed license amendment does not create the possibility of a new or different kind of accident from any previously evaluated.

No change is being made to the way the containment air locks provide plant protection. No new modes of plant operation are involved. Incorporating the requirement of the Westinghouse Standard Technical Specification for the containment air locks does not necessitate physical alteration of the plant or changes in plant operational limits.

(3) Does the proposed license amendment involve a significant reduction in a margin of safety.

*Response:*

Operation of Indian Point 3 in accordance with the proposed license amendment does not involve a significant reduction in a margin of safety.

The Westinghouse Standard Technical Specifications have been evaluated to provide an acceptable margin of safety, therefore amending the Indian Point 3 operating license to conform to the requirements of the WSTS insures a margin of safety that has already been evaluated to be acceptable.

The staff has reviewed and agrees with the licensee's analysis of the significant hazards consideration determination. Based on the review, and the above discussion, the staff proposes to determine that the proposed change does not involve a significant hazards consideration.

*Local Public Document Room location:* White Plains Public Library, 100 Martine Avenue, White Plains, New York 10601

*Attorney for licensee:* Mr. Charles M. Pratt, 10 Columbus Circle, New York, New York 10019.

*NRC Project Director:* Robert A. Capra

**Power Authority of The State of New York, Docket No. 50-286, Indian Point Nuclear Generating Unit No. 3, Westchester County, New York**

*Date of amendment request:* June 21, 1990

*Description of amendment request:* The proposed amendment would revise Technical Specification Sections 2.1 and 3.10 of Appendix A to replace the values of cycle-specific parameter limits with a reference to the Core Operating Limits Report (COLR), which contains the values of those limits. In addition, the COLR has been included in the Definitions Section of the Technical Specifications (TS) to note that it is the unit-specific document that provides these limits for the current operating reload cycle. Furthermore, the definition notes that the values of these cycle-specific parameter limits are to be determined in accordance with the Specification 6.9.1.6. This Specification requires that the Core Operating Limits be determined for each reload cycle in accordance with the referenced NRC-approved methodology for these limits and consistent with the applicable limits of the safety analysis. Finally, this report and any mid-cycle revisions shall be provided to the NRC upon issuance. Generic Letter 88-16, dated October 4, 1988, from the NRC provided guidance to licensees on requests for removal of the values of cycle-specific parameter limits from the TS. The licensee's proposed amendment is in response to this Generic Letter.

*Basis for proposed no significant hazards consideration determination:* The staff has evaluated this proposed amendment and determined that is involves no significant hazards consideration. According to 10 CFR 50.92(c), a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not:

1. Involve a significant increase in the probability or consequences of in accident previously evaluated; or

2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or

3. Involve a significant reduction in a margin of safety.

The proposed revision to the Technical Specificaitons are in accordance with the guidance provided in Generic Letter 88-16 for licensees requesting removal of the values of cycle-specific parameter limits from TS. The establishment of these limits in accordance with an NRC-approved methodology and the incorporation of these limits into the COLR will ensure that proper steps have been taken to establish the values of these limits. Furthermore, the submittal of the COLR will allow the staff to continue to trend the values of these limits without the need for prior staff approval of these limits and without introduction of an unreviewed safety question. The revised specifications with the removal of the values of cycle-specific parameter limits and that addition of the referenced report for these limits does not create the possibility of a new or different kind of accident for those previously evaluated. They also do not involve a significant reduction in the margin of safety since the change does not alter the methods used to establish these limits. Consequently, the proposed change on the removal of the values of cycle-specific limits does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Because the values of cycle-specific parameter limits will continue to be determined in accordance with an NRC-approved methodology and consistent with the applicable limits of the safety analysis, these changes are administrative in nature and do not impact the operation of the facility in a

manner that involves significant hazards consideration.

The proposed amendment does not alter the requirement that the plant be operated within the limits for cycle-specific parameters nor the required remedial actions that must be taken when these limits are not met. While it is recognized that such requirements are essential to plant safety, the values of limits can be determined in accordance with NRC-approved methods without affecting nuclear safety. With the removal of the values of these limits from the Technical Specifications, they have been incorporated into the COLR that is submitted to the Commission. Hence, appropriate measures exist to control the values of these limits. These changes are administrative in nature and do not impact the operation of the facility in a manner that involves significant hazards consideration.

Based on the preceding assessment, the staff believes this proposed amendment involves no significant hazards consideration.

*Local Public Document Room location:* White Plains Public Library, 100 Martine Avenue, White Plains, New York 10601.

*Attorney for licensee:* Mr. Charles M. Pratt, 10 Columbus Circle, New York, New York 10019.

*NRC Project Director:* Robert A. Capra

**Sacramento Municipal Utility District, Docket No. 50-312, Rancho Seco Nuclear Generating Station, Sacramento County, California**

*Date of amendment request:* December 28, 1989, amended March 16, 1990

*Description of amendment request:* The proposed amendment would revise Condition 2.C.(4) of the license, remove the fire protection Technical Specifications and the corresponding Bases, and add administrative controls to the Technical Specifications to support the Fire Protection Program. Generic Letters 86-10, dated April 24, 1986, and 88-12, dated August 2, 1988, from the NRC provides guidance to licensees to request removal of the fire protection Technical Specifications. The licensee's proposed amendment is in response to these Generic Letters.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated, (2) Create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) Involve a significant reduction in a margin of safety.

The proposed revision to the License Condition is in accordance with the guidance provided in Generic Letter 86-10 for licensees requesting removal of fire protection Technical Specifications. The incorporation of the NRC-approved Fire Protection Program, and the former TS requirements by reference to the procedures implementing these requirements, into the Updated Safety Analysis Report (USAR) and the use of the standard License Condition, on fire protection, will ensure that the Fire Protection Program, including the systems, the administrative and technical controls, the organization, and the other plant features associated with fire protection will be on a consistent status with other plant features described in the USAR. Also, the provisions of 10 CFR 50.59 would then apply directly for changes the licensee desires to make in the Fire Protection Program. In this context, the determination of the involvement of an unreviewed safety question defined in 10 CFR 59.59(a)(2) would be made based on the "accident...previously evaluated" being the postulated fire in the fire hazards analysis for the fire area affected by the change. Hence, the proposed License Condition establishes an adequate basis for defining the scope of changes to the Fire Protection Program which can be made without prior Commission approval, i.e., without introduction of an unreviewed safety question. The revised License Condition or the removal of the existing TS requirements on fire protection does not create the possibility of a new or different kind of accident from those previously evaluated. They also do not involve a significant reduction in the margin of safety since the License Condition does not alter the requirement that an evaluation be performed for the identification of an unreviewed safety question for each proposed change to the Fire Protection Program. Consequently, the proposed License Condition or the removal of the fire protection requirements do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed modification of the Administrative Control Section 6 of the Technical Specifications includes the addition of Fire Protection Program implementation to the requirements for Specification 6.8. Procedures and Programs, that requires written procedures be established, implemented, and maintained covering this program. This section of the Technical Specifications is also modified to include the review of the Fire Protection Program and implementing procedures and the submittal of recommended changes to the Management Safety Review Committee (MSRC) as one of the responsibilities of the Plant Review Committee (PRC) under Specification 6.5.1.6. In this manner, the Fire Protection Program will be addressed by administrative control requirements that are consistent with other programs addressed by License Conditions. These changes are administrative in nature and do not impact the operation of the facility in a manner that involves significant hazards considerations.

The proposed amendment includes the removal of fire protection Technical Specifications in four areas: (1) fire detection systems, (2) fire suppression systems, (3) fire barriers, and (4) fire brigade staffing requirements. While it is recognized that a comprehensive Fire Protection Program is essential to plant safety, many details of this program that are currently addressed in Technical Specifications can be modified without affecting nuclear safety. With the removal of these requirements from the Technical Specifications, they have been incorporated into the Fire Protection Program implementing procedures. Hence, with the additions to the existing administrative control requirements that are applicable to the Fire Protection Program and the revised License Condition, there are suitable administrative controls to ensure that licensee initiated changes to these requirements, that have been removed from the Technical Specifications, will receive careful review by competent individuals. Again, these changes are administrative in nature and do not impact the operation of the facility in a manner that involves significant hazards consideration.

Based on the preceding assessment, the staff believes this proposed amendment involves no significant hazards considerations.

*Local Public Document Room location:* Martin Luther King Regional Library, 7340 24th Street Bypass, Sacramento, California 95882.

*Attorney for licensee:* Jan Schori, Sacramento Municipal Utility District, 6201 S Street, P.O. Box 15830, Sacramento, California 95813

*NRC Project Director:* John T. Larkins

**Sacramento Municipal Utility District, Docket No. 50-312, Rancho Seco Nuclear Generating Station, Sacramento County, California**

*Date of amendment request:* December 28, 1989; revised April 30, 1990

*Description of amendment request:* The proposed amendment would add "Appendix C: Defueled Technical Specifications" to Facility Operating License No. DPR-54 for the Rancho Seco Nuclear Generating Station. The Defueled Technical Specifications (DTS) would be followed in lieu of the Appendices A and B Technical Specifications for the remainder of the current shutdown that began in June 1989 and remains in effect until the start of movement of fuel into the Reactor Building. Movement of fuel back to the Reactor Building would require that the plant revert back to the Appendices A and B Technical Specifications requirements.

The Rancho Seco DTS are based on the plant conditions that exist as a result of the plant closure/extended outage that the plant entered in June 1989. Fuel has been off-loaded from the reactor vessel and stored in the spent fuel pool (SFP). Plant systems are being placed in a lay-up condition to limit degradation. The DTS provide a level of protection needed to deal with credible accidents in the defueled condition, provide safe long-term storage of nuclear fuel, and provide the necessary level of protection to the health and safety of the public.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists in 10 CFR 50.92(c). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; (2) Create the possibility of a new or different kind of accident than previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has determined that the proposed change will not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated. There are only two credible accidents in the "Defueled Mode," a fuel handling accident and a Loss of Offsite Power (LOOP). The changes proposed do not increase the probability of either of these accidents since the LOOP is not controllable by the plant, and the requirements for testing of the fuel handling bridge remain unchanged. The extended time period available to restore offsite power (9.18 days minimum as of January 3, 1990) provides ample time to take corrective action to ensure fuel damage does not occur on a LOOP. (2) Create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed addition to the Operating License of the Defueled Technical Specifications applies only when the facility is in the present defueled condition. Therefore, only those activities and potential accidents associated with the SFP need be considered. Since the physical characteristics of the plant associated with the SFP are not being changed, and the systems required to safely store the spent fuel will be maintained, the possibility of a new or different kind of accident from any accident previously evaluated is not created. (3) Involve a significant reduction in a margin of safety since, for the two creditable accidents, the margin of safety for the fuel handling accident is unchanged, while the margin of safety for the LOOP is not significantly reduced given the 9.18 day minimum time period available to restore offsite power or to find an alternate means of adding water to the SFP.

Accordingly, the licensee has determined that the proposed changes to the Rancho Seco license involve no significant hazards consideration.

The NRC staff has reviewed the proposed amendment and the licensee's determination and find them acceptable. Therefore, the staff proposes to determine that the amendment request involves no significant hazards consideration.

*Local Public Document Room location:* Martin Luther King Regional Library, 7340 24th Street Bypass, Sacramento, California 95822.

*Attorney for licensee:* Jan Schori, Sacramento Municipal Utility District, 6201 S Street, P.O. Box 15830, Sacramento, California 95852

*NRC Project Director:* John T. Larkins, Acting

**Southern California Edison Company, et al., Docket No. 50-206, San Onofre Nuclear Generating Station, Unit No. 1, San Diego County, California**

*Date of amendment request:* June 11, 1990

*Description of amendment request:* Proposed Change No. 187, which was submitted by Amendment Application No. 178, proposes to revise Technical Specification (TS) by revising TS Section 4.0 and the Bases associated with Sections 3.0 and 4.0 on the applicability of the limiting conditions for operation and surveillance requirements. The proposed changes are in accordance with the guidance provided by Generic Letter 87-09 to preclude unnecessary plant shutdowns and to clarify the TS to allow passages through or to operational modes as required to comply with Action Requirements.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided the following no significant hazards consideration determination:

1. Will the operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

*RESPONSE: No.*

Operation of the facility in accordance with this proposed change has been reviewed by the NRC for generic implementation. Therefore, it is concluded that operation of the facility in accordance with this proposed change will not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response: No.*

Operation of the facility in accordance with this proposed change has been reviewed by the NRC for generic implementation. Therefore, it is concluded that operation of the facility in accordance with this proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

*Response: No.*

Operation of the facility in accordance with this proposed change has been reviewed by the NRC for generic implementation. Therefore, it is concluded that operation of the facility in accordance with this proposed change does not involve a significant reduction in a margin of safety.

Based on the preceding analysis, it is concluded that: 1) Proposed Change No. 187 does not involve a significant hazards consideration as defined by 10 CFR 50.92; and 2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change; and 3) this action will not result in a condition which significantly alters the impact of the Station on the environment as described in the NRC Final Environmental Statement.

The NRC staff has reviewed the licensee's no significant hazards consideration determination and agrees with the licensee's analysis. Therefore, the NRC staff proposes to determine

that the amendment request involves no significant hazards consideration.

*Local Public Document Room location:* Main Library, University of California, P.O. Box 19557, Irvine, California 92713.

*Attorney for licensee:* Charles R. Kocher, Assistant General Counsel, and James Beoletto, Esquire, Southern California Edison Company, P.O. Box 800, Rosemead, California 91770.

*NRC Project Director:* John T. Larkins, Acting

**Southern California Edison Company, et al., Docket No. 50-206, San Onofre Nuclear Generating Station, Unit No. 1, San Diego County, California**

*Date of amendment request:* June 11, 1990

*Description of amendment request:* Proposed Change No. 219, which was submitted by Amendment Application No. 179, proposes to remove the 3.25 surveillance extension limit from Technical Specification 4.0.2 in accordance with the guidance provided by Generic Letter 89-14.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided the following no significant hazards consideration determination:

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

*Response: No*

Removal of the 3.25 limit from the Surveillance Requirement does not modify the configuration of the facility or its mode of operation. The proposed change will, therefore, not involve a significant increase in the probability or consequences of [an] accident previously evaluated.

Specific Surveillance Requirements, i.e., the mechanics of the actual surveillances, are not modified. The proposed change would remove the 3.25 limit from TS 4.0.2 and allows surveillance intervals to be extended up to 25 percent of the specified interval. The limitation of TS 4.0.2 is based on engineering judgment and the recognition that the most probable result of any particular surveillance being performed is the verification of conformance with the Surveillance Requirements. The reliability ensured through surveillance activities is not degraded beyond that obtained from the specified time interval.

Generic Letter 89-14 has established that the use of the allowance to extend the surveillance intervals by 25 percent can also result in a significant safety benefit for surveillances that are performed on a routine basis during plant operation. This safety benefit is incurred when a surveillance interval is extended at a time that conditions are not suitable for performing the surveillance. An example would be plant transient operating conditions or conditions in which safety systems are out of service because of ongoing surveillance or maintenance activities. In such cases, the safety benefit of allowing the use of the 25 percent allowance to extend a surveillance interval would outweigh any benefit derived by limiting three consecutive surveillance intervals to the 3.25 limit.

The NRC staff has routinely granted requests for one-time exceptions to the 3.25 limit because the risks to safety is low in contrast to the alternative of a forced shutdown to perform these surveillances. Therefore, the 3.25 limitation has not been a practical limit on the use of the 25 percent allowance for extending surveillances.

Therefore, operation of the facility in accordance with this proposed change will not involve an increase in the probability or consequences of an accident previously evaluated.

2. Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response: No*

Removal of the 3.25 limit from the Surveillance Requirement does not modify the configuration of the facility or its mode of operation. The proposed change will therefore not create the possibility of a new or different kind of accident from any previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

*Response: No*

The use of the allowance to extend surveillance intervals will result in a safety benefit when the surveillance is extended at a time that conditions are not suitable for performing the surveillance. The proposed change does not affect the operation of the facility, modify any method of surveillance performance, or revise any safety analysis conclusion. Operation of the facility in accordance with this proposed change will therefore not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's no significant hazards consideration determination and agrees with the licensee's analysis. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Local Public Document Room location:* Main Library, University of California, P.O. Box 19557, Irvine, California 92713.

*Attorney for licensee:* Charles R. Kocher, Assistant General Counsel, and James Beoletto, Esquire, Southern California Edison Company, P.O. Box 800, Rosemead, California 91770.

*NRC Project Director:* John T. Larkins, Acting

**Tennessee Valley Authority, Docket No. 50-260, Browns Ferry Nuclear Plant, Unit 2, Limestone County, Alabama**

*Date of amendment requests:* June 4, 1990 and June 8, 1990 (TS 289)

*Description of amendment requests:* The Tennessee Valley Authority proposed to amend the technical specifications for Browns Ferry Nuclear Plant, Unit 2, as follows:

1. Delete existing reactor water cleanup (RWCU) system temperature switches from Table 3.2.A and add the new RWCU analog trip units (ATUs) to the table.

2. Delete note 14 from Table 3.2.A.

3. Delete existing RWCU system temperature switches from Table 4.2.A and add the new RWCU ATUs to the table.

4. Revise Bases section 3.2 to describe the locations of the Resistance Temperature Detectors (RTDs).

5. Delete existing items 2 and 3 under Group 3 in the Notes for Table 3.7.A (existing RWCU high temperature conditions) and add the new RWCU high temperature conditions.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated, or (2) Create the possibility of a new or different kind of accident from an accident previously evaluated, or (3) Involve a significant reduction in a margin of safety. 10 CFR 50.91 requires that at the time a licensee requests an amendment, it must provide to the Commission its analyses, using the standards in Section 50.92, on the issue of no significant hazards consideration. Therefore, in accordance with 10 CFR 50.91 and 10 CFR 50.92, the licensee has performed and provided the following analysis:

1. The proposed change does not involve a significant increase in the probability or consequences of [an] accident previously evaluated.

An analysis of High Energy Line Breaks (HELBs) in the reactor building identified certain RWCU pipe breaks which could not be automatically detected and isolated in a reasonable timeframe. To resolve this, a modification is being performed to remove from service the existing non-environmentally qualified temperature switches used to detect RWCU line breaks and replace them with environmentally

qualified RTDs and IEEE Class 1E qualified analog trip units (ATUs) located to detect and isolate the critical RWCU pipe breaks. This TS amendment adds the new ATUs function to Tables 3.2.A and 4.2.A and to the Notes for Table 3.7.A. It also deletes note 14 from Table 3.2.A. This note only applies to the old temperature switches which are being removed from the table.

The safety function of the RTD/ATU temperature loops is to provide an isolation signal to close the RWCU suction line isolation valves (2-FCV-69-001 and 2-FCV-69-002) and RWCU return line valve (2-FCV-69-012) on a high area temperature. This ensures RWCU pipe breaks are isolated. No other RWCU safety functions are affected by the change.

The new RTD/ATU temperature loops were chosen to decrease the time required to initiate closure of the RWCU valves. This improves the detection/isolation of RWCU breaks and helps to limit the reactor coolant lost, helps ensure core cooling, and helps ensure that environmental conditions inside the reactor building are maintained within the required limits.

Components added by this change are qualified for the environment in which they will operate. This ensures that the system will perform its function in a post accident environment. No additional paths for the release of radiation or contamination are created.

The failure modes of the RTDs and ATUs are such that any single failure will result in a gross failure alarm and/or a channel trip. Because of the redundancy, separations, and logic designed into the system, a single failure of any part of the system will not prevent isolation of the primary containment isolation valves nor can spurious operation occur.

The RTDs will be located and the instrument setpoints will be set to preclude spurious trips due to ambient temperatures including localized hot areas while assuring a timely trip due to a pipe break.

2. The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

This change is being made to improve the RWCU leak detection/isolation function of the RWCU Primary Containment Isolation System (PCIS). The PCIS will perform its intended safety function in the same manner as the previous installation. There is no affect on the function or operation of any plant system.

Failure of the RTD/ATU temperature loops would be no different than failure of existing temperature switches. Since environmental qualification requirements, divisional separation, single failure requirements and one-out-of-two taken twice logic requirements are maintained, the possibility of a RWCU isolation failure on a RWCU line break or of a spurious isolation is no more likely after the change than before.

In the existing design, logic relays are powered from RPS Bus A or B. The new design uses RPS Bus A or B to feed the ATUs. Therefore, the consequence of a power failure is unchanged from the present design.

The seismic qualification and proper circuit coordination of the installation is maintained. The system functions and operates in the same manner as previously evaluated in the Safety Analysis Report. No new system interactions other than additional RTDs located in the main steam valve vault to input into the PCIS logic for isolation of the RWCU have been introduced by this activity.

3. The proposed change does not involve a significant reduction in a margin of safety.

The margin of safety will be enhanced by installing instruments that provide quicker response to a temperature rise indicative of a pipe break. Calculations have been performed to determine the analytical limits for the RTD/ATU temperature loops in each of the monitored areas and to determine the setpoints for the ATUs in each area. The setpoints are set above the maximum expected room temperatures to avoid spurious actuations due to ambient conditions and below the analytical limits to ensure timely detection of a pipe break. This type of design utilizing ATUs has been analyzed by NRC (NEDO-21617, Analog Transmitter/Trip Unit System for Engineered Safeguard Sensor Trip Input) and has been found to be generically acceptable at BWR facilities.

The staff has reviewed the licensee's analysis of no significant hazards consideration and agrees with the licensee's conclusions. Therefore, the staff proposes to determine that the application for amendments does not involve significant hazards consideration.

*Local Public Document Room location:* Athens Public Library, South Street, Athens, Alabama 35611.

*Attorney for licensee:* General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, E11 B33, Knoxville, Tennessee 37902.

*NRC Project Director:* Frederick J. Hebdon

**Tennessee Valley Authority, Docket Nos. 50-259, 50-260 and 50-296, Browns Ferry Nuclear Plant, Units 1, 2 and 3, Limestone County, Alabama**

*Date of amendment requests:* January 31, March 20, and May 14, 1990 (TS 277)

*Description of amendment requests:* The amendments revise Browns Ferry Nuclear Plant (BFN) Technical Specifications (TS) to more accurately describe the diesel generator (DG) seven-day fuel oil requirements (3.9.A.6), update testing of DGs (4.9.A.1.a), and revise surveillance requirements for DG fuel oil sampling (4.9.A.1.e).

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated, or (2) Create the possibility of a new or different kind of accident from an accident previously evaluated, or (3) Involve a significant reduction in a margin of safety. 10 CFR 50.91 requires that at the time a licensee requests an amendment, it must provide to the Commission its analyses, using the standards in Section 50.92, on the issue of no significant hazards consideration. In accordance with 10 CFR 50.92, TVA provided an analysis of their proposed amendments, as paraphrased below, which concluded that operation of Browns Ferry in conformance with their proposed amendment: (1) Would not involve a significant increase in the probability or consequences of any accident previously evaluated because the proposed change to TS Limiting Condition of Operation (LCO) 3.9.A.1 would make the terminology in this LCO consistent with NRC approved TS amendment dated January 13, 1989.

Surveillance testing of the DGs at 100 percent of their continuous load rating on an 18 month frequency is consistent with current industry practices and manufacturer's recommendations. Testing the DGs in this manner will ensure that they will perform their intended safety function when called upon. Additionally, revising the sampling requirements of diesel fuel oil will provide clarification of the necessary frequency. These changes incorporate practices and standards which have been previously accepted by the NRC.

Changing the diesel generator TS (LCO 3.9.A.6) requiring that the seven-day storage tank assemblies maintain a minimum required amount of diesel fuel (35,280 gallons per DG), ensures there is at least seven days worth of fuel available to operate the diesel generators. The new LCO states the requirements on a per diesel generator basis. This change is consistent with the BFN licensing basis in the Final Safety Analysis Report (FSAR) and Regulatory Guide 1.137, "Fuel-Oil Systems for Standby Diesel Generators."

These changes to the TSs for the diesel generators and their fuel oil system have no effect on the probability of any accidents since the primary function of these systems is to mitigate the effects of an accident and achieve and maintain the plant in cold shutdown. These proposed TS changes do not modify or alter the design or mitigation functions of any diesel generator and do not change any abnormal operational transient analyzed in the BFN FSAR. These

proposed changes provide for clarification and closer compliance with ASTM standards and Regulatory Guides to ensure that the diesel generators will perform as intended.

(2) Would not create the possibility of a new or different kind of accident from any accident previously evaluated because the TS change to LCO 3.9.A.1 will merely provide clarification and consistency with other existing TS. This proposed TS amendment does not intend to alter the condition, design, or operation of any safety related equipment at BFN.

Changing TS 4.9.A.1 to test the diesel generators for at least 1 hour at 100 percent or greater of the continuous rating in addition to adding the testing requirements for a 24 hour load test once every 18 months is consistent with the guidance provided by the GE Standard TS and vendor recommendations. Testing the diesel in this manner better demonstrates its ability to perform its intended safety function. This change is within the design limits of the DGs. This change does not modify any safety related equipment or alter the diesel generator's safety function to supply emergency power to safety systems required to mitigate an accident.

The proposed TS sampling requirements for diesel fuel oil are consistent with standard TS for a BWR-4. Furthermore, these proposed TS changes are consistent with other various industry standards which were developed to enhance the overall operation of the DGs.

The TS change regarding DG fuel oil storage tanks would provide additional clarity and more accurately reflect the as-built design of the plant. This change does not modify any equipment, operation of equipment, or the amount of fuel oil available to fulfill the 7 day supply requirements as previously analyzed in the BFN FSAR. This change does not degrade the operation of the diesel generator nor effect any of its intended safety functions.

These changes to the TSs for the DGs and their fuel oil system do not create the possibility for any new or different accidents since they are designed to migitate the effects of an accident. No safety-related equipment, safety function, or plant operation will be altered as a result of these changes. No new radiation release pathways are created, nor are previously analyzed accident scenarios invalidated.

(3) Would not involve any significant reduction in a margin of safety. The proposed amendment brings the technical specifications more in compliance with the actual design and operation of BFN. Revising the LCO 3.9.A.1 provides clarification to the existing BFN TS; in addition, it provides for more consistency with a previously approved TS amendment. Changing the DG monthly testing, 18 month testing, and fuel oil sampling surveillance requirements improves overall safety of the plant in that this more rigorous testing better demonstrates the DGs capability to supply required emergency loads. These changes will provide added assurance that the diesels will be able to perform their intended safety function.

Revising the diesel generator TS to more accurately reflect the 7 day fuel oil supply requirements for each DG will further ensure that BFN is in closer compliance with its licensing basis and NRC approved industry standards.

The staff has reviewed the licensee's analysis of no significant hazards consideration and concurs with the licensee's conclusions. Therefore, the staff proposes to determine that the application for amendment involves no significant hazards considerations.

*Local Public Document Room location:* Athens Public Library, South Street, Athens, Alabama 35611.

*Attorney for licensee:* General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, E11 B33, Knoxville, Tennessee 37902.

*NRC Project Director:* Frederick J. Hebdon

**Tennessee Valley Authority, Docket Nos. 50-269, 50-260 and 50-296 Browns Ferry Nuclear Plant, Units 1, 2, and 3 Limestone County, Alabama**

*Date of amendment requests:* June 4, 1990 (TS 286)

*Description of amendment requests:* The Tennessee Valley Authority proposed to amend the Technical Specifications (TS) of the operating licenses for Browns Ferry Nuclear Plant Units 1, 2 and 3 as follows: add surveillance requirements to demonstrate operability of the undervoltage, overvoltage and underfrequency trip level settings of the reactor protection system (RPS) circuit protector instrumentation for unit 1; revise the values for the RPS circuit protector trip level settings for unit 2; add Limiting Conditions for Operation (LCOs) for the RPS power monitoring channels and alternate power sources of Unit 3; and add surveillance requirements for RPS power monitoring system instrumentation to demonstrate operability of the undervoltage, overvoltage, and underfrequency RPS circuit protector trip instrumentation for Unit 3.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) Involve a significant increase in the probability or consequences of an accident previously evaluated, or (2) Create the possibility of a new or different kind of accident from an accident previously evaluated, or (3) Involve a significant reduction in margin of safety. 10 CFR 50.91 requires that at the time a licensee requests an amendment, it must provide to the Commission its analyses, using the standards in Section 50.92, on the issue of no significant hazards consideration. Therefore, in accordance with 10 CFR 50.91 and 10 CFR 50.92, the licensee has performed and provided the following analysis:

1. The proposed change does not involve a significant increase in the probability or consequences of [an] accident previously evaluated. The BFN Final Safety Analysis (FSAR) section 7.2.3.2 states that the power to each of the two reactor protection trip systems is supplied, via a separate bus, by its own high-inertia, a-c motor generator (MG) set. The high inertia is provided by a flywheel. The inertia is sufficient to maintain voltage and frequency within 27 5 percent of rated values for at least 1.0 second following total loss of power to the MG set. In applying this to section 14.5.4.4.b of the FSAR accident analysis, loss of auxiliary power assumes the RPS MG set coastdown time until loss of MG generator output voltage to be 5.0 seconds. The upper and lower bounds for voltage output and time delay are identified as sufficient performance parameters expected from the MG set design.

The installed RPS power monitoring system is designed for the MG sets to provide the time delay. Consequently, the trip level settings for the RPS power monitor must be outside the expected operating range of the MG set. For a nominal 120 VAC MG output voltage, the 5 percent regulation band (114 to 126 volts) is within the allowable TS trip level setting of 108.5 to 132 VAC. This will allow the MG set to function within its designed time and voltage range before the RPS power monitoring system trips. These settings support the design and function of the high-inertia MG sets, and therefore, support the assumptions made in the BFN FSAR. The design, trip level settings, and intended function of the RPS power monitoring system are both bounded and support the current BFN FSAR accident analysis.

This TS change will result in spurious RPS circuit protector trips being reduced or eliminated, resulting in fewer challenges to safety-related systems involved in maintaining fuel cladding integrity and reactor coolant pressure boundary integrity. This modification, by improving RPS power supply reliability, fully supports the

mitigation of design basis events involving components that are supplied power from the RPS buses or which receive signals from those components. The plant's capability to detect radiological problems and to maintain radiological barriers is not adversely affected by this modification. Therefore, this modification will not result in an increase in the probability or consequences of an accident.

2. The proposed change will not create the possibility of a new or different kind of accident from an accident previously evaluated.

This change is the result of a modification to increase the RPS power supply reliability. This is being accomplished without ntroducing the possibility of damaging components which are supplied power from the RPS buses. This change does not create any new accident scenarios for consideration because all components supplied power from RPS buses will continue to function as they did before this change. Therefore, this change does not create a possibility of a new or different type of accident.

3. The proposed change will not involve a significant reduction in a margin of safety.

The purpose of the RPS circuit protectors is to protect components supplied power from the RPS buses from damage or malfunction resulting from sustained undervoltage, overvoltage, or underfrequency conditions. The purpose of this change is to reduce or eliminate spurious RPS circuit protector trips which could result in unnecessary reactor shutdowns and challenges to safety-related and important-to-safety equipment. Although the change increases the range of voltage and frequency to which the RPS circuit protectors can be exposed prior to tripping, sufficient margin exists to ensure that the limiting voltages and frequencies for the protected equipment are not reached. Based on engineering judgement, reducing the possibility of unnecessary reactor scrams and equipment challenges, while continuing to adequately protect the most limiting components that are supplied power from the RPS buses, increases the margin of safety by reducing the number of times that safety equipment is challenged to function.

The staff has reviewed the licensee's no significant hazards consideration determination and agrees with the licensee's analysis. Therefore, the staff proposes to determine that the application for TS amendments does not involve a significant hazards considerations.

*Local Public Document Room location:* Athens Public Library, South Street, Athens, Alabama 35611.

*Attorney for licensee:* General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, E11 B33, Knoxville, Tennessee 37902.

*NRC Project Director:* Frederick J. Hebdon

**Vermont Yankee Nuclear Power Corporation, Docket No. 50-271, Vermont Yankee Nuclear Power Station, Vernon, Vermont**

*Date of amendment request:* June 1, 1990

*Description of amendment request:* The proposed amendment would make 15 administrative changes to the Technical Specifications in order to correct various errors and inconsistencies including typographical errors, transcription errors, cross references which no longer apply, and deletion of material which is no longer applicable.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards considerations if operation of the facility in accordance with a proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; (2) Create the possibility of a new or different kind of accident from an accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee addressed the above three standards in the amendment application. In regard to the three standards, the licensee provided the following analysis:

The proposed changes are to correct various administrative errors and inconsistencies including typographical errors, transcription errors, cross references which no longer apply, and deletion of no longer applicable material obsoleted by prior amendments but which, through oversight, had not been removed.

None of these changes will affect any plant hardware, plant design, safety limit settings, or plant operation, and therefore do not modify or add any initiating parameters that would significantly increase the probability or consequences of any previously analyzed accident. Therefore, the proposed changes will not result in a significant increase in the probability or consequences of an accident previously evaluated.

As discussed above, the proposed changes only correct administrative errors and inconsistencies. The proposed changes do not affect any equipment nor do they involve any potential initiating events that would create any new or different kind of accident. As such, the plant initial conditions utilized for the design basis accident analyses remain unchanged and valid. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

As discussed above, the proposed changes which correct administrative errors and inconsistencies do not affect any equipment involved in potential initiating events or safety limit settings. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

We conclude, therefore, that the proposed changes do not constitute a significant safety hazards consideration as defined in 10CFR50.92.

The staff has reviewed the licensee's analysis and agrees with it. Therefore, we conclude that the amendment satisfies the three criteria listed in 10 CFR 50.92. Based on that conclusion the staff proposed to make a no significant hazards consideration determination.

*Local Public Document Room location:* Brooks Memorial Library, 224 Main Street, Brattleboro, Vermont 05301

*Attorney for licensee:* John A. Ritsher, Esquire, Ropes and Gray, 225 Franklin Street, Boston, Massachusetts 02110

*NRC Acting Project Director:* Victor Nerses

**Vermont Yankee Nuclear Power Corporation, Docket No. 50-271, Vermont Yankee Nuclear Power Station, Vernon, Vermont**

*Date of application for amendment:* June 11, 1990

*Description of amendment request:* The proposed amendment would change the Administrative Controls, Section 6.0, of the Technical Specifications. It would add several NRC reviewed and approved methodologies for use in generating cycle-specific limits, to the list of references that may be used in the Core Operating Limits Report.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards determination exists as stated in 10 CFR 50.92(c). A proposed amendment to an operating license involves no significant hazards considerations if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated, or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) Involve a significant reduction in a margin of safety.

The licensee has evaluated the proposed amendment against the standards in 10 CFR 50.92 and has determined the following:

The discussion below addresses these standards and demonstrates that operating the facility in accordance with the proposed change involves no significant hazards consideration.

1. The proposed change will not involve any significant increase in the probability or consequences of an accident because the

change only updates a table in the Technical Specifications to include previously approved methods and, therefore, is administrative and does not affect plant operation, and will not weaken or degrade the facility.

2. The proposed change will not create the possibility of a new or different kind of accident because the change is administrative in nature and no physical alterations of any plant configuration, changes to setpoints, or operating parameters are proposed.

3. The proposed change will not involve a significant reduction in a margin of safety because the change involves an update to Section 6.0, Administrative Controls of the Technical Specifications and does not affect any operating practices, limits, or safety-related equipment and therefore is administrative. The margin of safety is unchanged because the plant is limited by the cycle-specific limits, established using NRC-approved methodology.

The proposed change described above is administrative in nature because it simply updates Section 6.0 to include previously reviewed and approved methods used to determine the core operating limits for Cycle 15 and future cycles. In accordance with Section 6.7.A.4 of the Technical Specifications, Vermont Yankee will, upon approval of this proposed change, issue a revised Core Operating Limits Report containing references to the subject approved methodologies.

The staff has reviewed the licensee's analysis and agrees with it. Therefore, we conclude that the amendment satisfies the three criteria listed in 10 CFR 50.92. Based on that conclusion the staff proposed to make a no significant hazards consideration determination.

*Local Public Document Room location:* Brooks Memorial Library, 224 Main Street, Brattleboro, Vermont 05301. Attorney for Licensee: John A. Ritsher, Ropes and Gray, 225 Franklin Street, Boston, Massachusetts 02110.

*NRC Acting Project Director:* Victor Nerses

**Virginia Electric and Power Company, Docket Nos. 50-338 and 50-339, North Anna Power Station, Units No. 1 and No. 2, Louisa County, Virginia**

*Date of amendment request:* April 27, 1990

*Description of amendment request:* The proposed changes would revise the Technical Specifications (TS) for the North Anna Power Station, Unit Nos. 1 and 2 (NA-1&2). Specifically, the changes would enhance Residual Heat Removal (RHR) system reliability by removing the automatic isolation requirement for the RHR suction valves from the NA-1&2 3/4.7.9. A requirement to verify these valves closed and deenergized prior to exceeding 500 psig in the Reactor Coolant System (RCS) would also be added. Currently, the NA-1&2 TS require an automatic closing function for the RHR suction valves whenever the RCS pressure exceeds 660 psig. This ensures double valve isolation between the high pressure RCS and the low pressure RHR system. However, industry experience has shown it to be a major cause of inadvertent losses of decay heat removal capability. It has also been addressed specifically as being a major contributor to Loss of Decay Heat Removal (DHR) events in NRC Generic Letters 87-12 and 88-17. Deleting the interlock would increase the reliability of the RHR system during cold shutdown conditions while ensuring the isolation of the RHR system from the RCS would still be required by the TS. The proposed changes would also modify the surveillance testing requirements of the RHR pumps to be in accordance with TS 4.0.5 which invokes Section XI of the ASME Boiler and Pressure Vessel Code for inservice testing. And finally, several administrative changes would be made by reformatting TS 3/4.7.9.1 and 3/4.7.9.2 to provide greater clarity and consistency.

The RHR system is used to provide core cooling when the RCS is operated below approximately 350° F and 450 psig. The system, which is located entirely within the reactor containment building, consists of two pumps, two heat exchangers, and appropriate piping, is not part of the Safety Injection System (SIS) and does not perform any Emergency Core Cooling System (ECCS) functions. The RHR system piping inside the RHR isolation valves is designed for 600 psig at 400° F. RHR is connected to the "A" RCS hot leg by one pipe supplying suction to both RHR subsystems. The suction line has two motor-operated valves (MOVs), MOV-700 and MOV-701, in series to isolate the RHR system from the RCS. The RHR suction line valves, MOV-700 and MOV-701, operate similarly. These valves have no automatic open functions and they may be remotely opened using the control room pushbutton only if the RCS pressure is not greater than the open permissive interlock setpoint, 418 psig. The suction valves may be remotely closed by using the control room pushbuttons or automatically closed whenever the RCS pressure is above the autoclose setpoint, 582 psig.

Two relief valves, RH-RV-721A and RH-RV-721B, provide overpressure protection for the RHR system piping. One valve is located on the suction piping to each RHR pump with lift setpoints of 467 psig. Although each relief valve is capable of relieving the flow from three charging pumps, interlocks permit only two pumps to operate simultaneously and TS 3.5.3 and station procedures only allow one charging pump to be operable when the RCS cold leg temperature is less than or equal to 324° F on NA-1 and 340° F on NA-2. Therefore, the relief valves are fully capable of relieving the maximum mass input to the RCS. In addition, RHR overpressure protection may also be provided by the Low Temperature Overpressurization Protection (LTOP) system from the pressurizer power operated relief valves (PORVs), RC-PCV-455C and RC-PCV-456, when the RHR system is in service.

A disadvantage of the autoclosure feature is the possibility of an inadvertent valve closure during RHR operation resulting in the loss of decay heat removal capability. The Westinghouse Owners Group has evaluated the the removal of the RHR suction valve autoclosure interlock, with NA-1 used as one of four lead plants for this evaluation. The results of this study, "Residual Heat Removal System Autoclosure Interlock Removal Report For Westinghouse Owner Group," WCAP-11736-A, Revision O, October 1989, indicates an increase in RHR availability and overall improvement in plant safety if the autoclosure interlock is removed. WCAP-11736-A identifies issues to be addressed when considering removal of the autoclosure interlock. These issues are: (1) the means available to minimize Events V concerns, (2) the alarms available to alert the operator of an improperly positioned valve, (3) adequacy of the RHR suction relief valve capacity, (4) means other than the ACT to ensure both MOVs are closed, (5) assurance that the function of the open permissive circuitry is not affected by the proposed change, (6) assurance that MOV position indication will remain available in the control room, (7) assessment of the proposed changes effect on RHR system reliability, and (8) the effect on LTOP concerns. In addition, all RHR overpressurization accidents were evaluated for four possible situations. These four situations are: (1) placing RHR in service, (2) RHR in service, (3) removing RHR from service, and (4) RHR not in service.

The evaluation of the issues and accident scenarios as noted above concluded that overall safety at NA-1&2 would be improved by removal of the RHR suction valve autoclosure interlock. Means are available to minimize Event V concerns. Event V is defined as an intersystem loss of coolant accident (LOCA) which bypasses containment. With the entire NA-1&2 RHR system located inside of containment, an Event V accident can

not take place with the RHR system. Removing the RHR suction valve autoclosure interlock would not change the probability of an Event V for North Anna.

Existing control room annunciators at NA-1&2 would adequately inform the control room operator of an overpressurization event when RHR is in service. The capacity of the RHR relief valves is sufficient for any pressurization event. The means to be used to ensure the MOVs are closed is through independent operator verification. When RHR is removed from service, the existing procedures require closing the suction valve, deenergizing the motor by opening the power supply breaker, and locking the breaker in the open position. Independent verification would be used to ensure that these actions are properly performed. The open permissive interlock circuitry would be unaffected and the current open permissive setpoint will remain 418 psig. This interlock permissive prohibits the remote opening of the RHR suction valves unless the RCS pressure is less than 418 psig. The current control room position indication for the RHR suction valve MOVs would not be changed. The current control room indication provides valve position lights for full open, full closed and both lights illuminated for intermediated position. These indicators are deenergized when the valve is deenergized. Assurance that the suction and discharge MOVs are closed when the valves are deenergized would be through the use of independent verification of the correct performance of the applicable operating procedures. The performance of the NA-1&2 LTOP would be enhanced with the deletion of the RHR autoclosure interlock. The RHR suction line relief valves will provide relief capability in addition to the existing pressurizer PORVs. This additional relief capacity could be defeated by the autoclosure interlock which would isolate the RHR relief valves from the RCS.

The proposed changes would revise TS 3/4.7.9.1 and 3/4.7.9.2 for the RHR pump testing requirement to demonstrate that each pump can develop greater than or equal to 123 psi differential pressure with a requirement that the pumps be tested in accordance with TS 4.0.5, which refers to Section XI of the 1980 ASME Boiler and Pressure Vessel Code.

The minimum differential pressure requirement of TS 3.7.9.1 was based on the assumption that the RHR pumps receive an engineered safety feature (ESF) actuation and are required for proper safety injection (SI) flow. The RHR system is not required for emergency core cooling under any accident conditions and is not capable of providing SI flow to the core. Therefore, the minimum differential pressure that is required in the Standard TS (STS) for SI pumps is not applicable for the NA-1&2 RHR pumps.

Finally, administrative changes would be made to TS 3/4.7.9.2 by reformatting to achieve greater consistency and clarity.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety. The licensee has evaluated the proposed change request against the standards provided above and has determined that these changes will not:

1. result in a significant increase in the probability or consequences of an accident previously evaluated. Replacing the RHR system suction valve automatic closure interlock requirement with a requirement for manual isolation will not result in a significant change in the probability or consequences of an intersystem LOCA. This change will, however, decrease the probability for a loss of decay heat removal accident. The interlock has initiated past events where the suction valves have inadvertently closed. This accident sequence could lead to core damage if not corrected in a timely manner. Removing the autoclosure interlock significantly decreases, but does not eliminate, the possibility for this accident sequence.

The two RHR discharge lines do not have autoclosure interlock protection. The probability of leaving an RHR suction valve open and rupture of the remaining suction valve is approximately the same as leaving an RHR discharge valve open and rupture of the single discharge check valve. An intersystem LOCA between the high pressure RCS and the low pressure RHR system can occur through the suction line or either of the two RHR discharge lines. Removing the suction valve autoclosure interlock will not have a significant effect on the intersystem LOCA probability associated with the suction line or discharge lines.

The consequences of all NA-1&2 Updated Final Safety Analysis Report (UFSAR) accidents remain the same because the RHR system is located entirely within containment and there are no changes to the radiological barriers within containment. With or without the autoclosure interlock, the worst-case accident associated with a rupture of the RHR isolation valves is an intersystem LOCA. The consequences of this LOCA are similar to the consequences of LOCAs already analyzed in the UFSAR. The consequences for a loss of decay heat removal event remain the same after the autoclosure interlock is removed.

Testing of the RHR pumps in accordance with ASME XI requirements instead of the 123 psi differential pressure test requirement will not increase the consequences of any previously evaluated accidents. North Anna's RHR system is not part of the ECCS. The RHR pumps are not required to flow to the core during a safety injection.

The administrative changes would not result in a significant increase in the probability or consequences of an accident previously evaluated, because the changes are only of an administrative nature intended to clarify the affected TS and provide for greater consistency. These changes involve no changes to the plant equipment or operating practices and procedures.

2. create the possibility of a new or different kind of accident from any accident previously identified. Administrative control utilizing independent verification to close and deenergize the RHR suction valves is not significantly different from using an autoclosure interlock to ensure both suction valves are closed when the RCS is pressurized above the RHR design pressure. Because there are no significant changes to the RHR system, the possibility for a different type of accident malfunction is not created. The possible accident sequences have been previously evaluated.

Testing of the RHR pumps in accordance with ASME XI requirements would not create the possibility of a new or different kind of accident from any accident previously identified. Because there are no significant changes to the RHR system, the possibility for a different type of accident or malfunction is not created. The possible accident sequences have been previously evaluated.

The administrative changes would not create the possibility of a new or different kind of accident, because the changes are intended to only clarify the affected TS and provide for greater consistency. These changes will not change to the plant equipment or operating practices and procedures.

3. result in a significant reduction in a margin of safety. These changes do not alter the conditions or assumptions of the accident analysis or the basis of the current TS.

RHR suction valve autoclosure interlock is not specifically addressed in any TS bases. Removing the RHR suction valve autoclosure interlock will increase the availability of the RHR system to remove decay heat during shutdown conditions.

When the RHR system is in service, the RCS LTOP system will provide an adequate margin of safety to protect the RCS and the RHR systems. In addition to the LTOP system, the two RHR relief valves are each sized to provide protection against RHR overpressurization.

Testing of the RHR pumps in accordance with ASME XI requirements would not result in a significant reduction in a margin of safety. This change does not alter the conditions or assumptions of the accident analysis or the basis of the current TS. Since the RHR system does not perform any ECCS functions, testing of the RHR pumps in accordance with ASME Section XI instead of the current 123 psi differential pressure test requirement does not reduce any margin of safety and does enhance overall system reliability by eliminating pump wear from operation in a minimum recirculation flow condition.

The administrative changes would not result in a significant reduction in the margin of safety because the changes are only intended to clarify the affected TS and provide for greater consistency. These changes will not change to the plant equipment or operating practices and procedures.

The NRC staff has made a preliminary review of the licensee's analyses of the proposed changes and agrees with the licensee's conclusion that the three standards in 10 CFR 50.92(c) are met. Therefore, the staff proposes to determine that the proposed amendments do not involve a significant hazards consideration.

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*NRC Project Director:* Herbert N. Berkow

**Virginia Electric and Power Company, Docket Nos. 50-338 and 50-339, North Anna Power Station, Units No. 1 and No. 2, Louisa County, Virginia**

*Date of amendment request:* April 30, 1990

*Description of amendment request:* The proposed changes would revise the Technical Specification (TS) requirements governing the operability of the Individual Rod Position Indication (IRPI) system. NA-1&2 has experienced operational difficulties with the IRPI system due to system nonlinearities and both transient and steady-state temperature sensitives. The proposed changes would shift the emphasis from the IRPI system to the Demand Position Indication (DPI) system (the step counters) for rod group position information during shutdown, and certain operational modes such as reactor startup. For those conditions in which information is needed to confirm rod motion and the direction of rod motion, the IRPI system would be available to provide this information.

Several Westinghouse-designed plants have experienced difficulties with calibration and accuracy of the IRPI system. The system consists of a set of linear variable transformers formed from primary and secondary coils alternately stacked on cylindrical stainless steel tubes. An extension shaft from the rod drive mechanism extends up into the tube and serves as a variable core for the transformer. Thus, with a constant a.c. source applied to the primary side, movement of the rod drive extension shaft changes the primary-to-secondary coupling of the transformer and produces a secondary voltage that is directly related to rod position.

There are two basic problems relating to the calibration of these instruments. First, the instrumentation readout design is based on the assumption that secondary output voltage is a linear function of rod position. In fact, the steady-state calibration curve is an arc-shaped or even an S-shaped curve. For many rods, at a given steady-state condition, the zero and span adjustments can be used to fit the calibration curve to within the specified 12-step tolerance, but this is not true for all rods for all plants.

The second problem is that the instrument response is highly temperature sensitive, and there is a transient (nonequilibrium) temperature response associated not only with RCS temperature changes but also with rod motion. On most plants the RPI for each individual rod is calibrated at hot operating temperatures at beginning of cycle. As the reactor is cooled down to enter modes 3, 4, and 5 (hot, intermediate, and cold shutdown), the hot calibration curve becomes inaccurate and may be off by as much as 60 steps (over one-quarter of the core height).

The transient thermal response problem has been characterized as an "overshoot" for most plants. In other words, if a rod is withdrawn, the IRPI channel will show greater withdrawal than actual for a period of time, then as the system returns to thermal equilibrium, the indication will settle back to the "true" calibrated value. Similarly, if the rod is inserted, the IRPI channel will initially indicate a greater insertion than actual. A Safety Evaluation prepared for Beaver Valley Unit 1 plant indicates that the transient indication error is as high as 25 steps for some plants and tends to be worse in the top half of the core (i.e., near the fully withdrawn position). The thermal "soak time," or the time for the IRPI channel to reach equilibrium following rod motion, is reported to range between 20 and 45 minutes.

NA-1&2 is one of the Westinghouse-designed plants which have experienced difficulties with calibration and accuracy of the IRPI system. As a result of these difficulties, the licensee is proposing a set of changes to the NA-1&2 TS which would shift the emphasis from the IRPI system to the demand position indication system (step counters) for providing detailed rod position information during the shutdown modes (modes 3-5) and during startup and shutdown operations. For situations where it is important to have independent verification that control and shutdown rods are moving upon demand, the IRPI system will still be available to provide this function. The proposed changes for NA-1&2 have been approved by the NRC on other operating facilities, such as Beaver Valley Unit 1.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has evaluated the proposed change request against the standards provided above and has determined that this change will not:

(1) involve a significant increase in the probability or consequence of an accident previously evaluated. No new or unique accident precursors are introduced by these changes to the TS requirements. Also, the consequences of the accidents will not increase. Peaking factors which occur as a consequence of severely misaligned or dropped rods are verified on a reload basis as not violating any safety limit. Assumed misalignments in accident analyses easily bound any which can occur under the proposed TS so that these changes cannot result in an significant increase in an accident.

(2) create the possibility of a new or different kind of accident than previously evaluated. Since the implementation of the proposed surveillance requirements will require no hardware modifications (i.e., alterations to plant configuration), operation with the proposed TS changes does not create the probability of any accident which has not already been

evaluated in the Updated Final Safety Analysis Report (UFSAR).

(3) involve a significant reduction in a margin of safety. Misalignments and their subsequent peaking factors assumed in the UFSAR accident analyses bound potential misalignments under the proposed TS changes. Therefore, no safety margin reduction accompanies these changes.

The NRC staff has made a preliminary review of the licensee's analyses of the proposed changes and agrees with the licensee's conclusion that the three standards in 10 CFR 50.92(c) are met. Therefore, the staff proposes to determine that the proposed amendments do not involve a significant hazards consideration.

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*NRC Project Director:* Herbert N. Berkow

**Virginia Electric and Power Company, Docket Nos. 50-338 and 50-339, North Anna Power Station, Units No. 1 and No. 2, Louisa County, Virginia**

*Date of amendment request:* June 8, 1990, as superseded June 13, 1990

*Description of amendment request:* The proposed changes would revise the Technical Specifications (TS) for the North Anna Power Station, Units No. 1 and No. 2 (NA-1&2). Specifically, the changes would enhance reactor heat removal (RHR) reliability by allowing for a reduced reactor coolant system (RCS) circulation flow, thereby reducing vortex formation and air ingestion into the RHR pumps while operating in a reduced RCS inventory condition. This matter has been addressed specifically as being a major contributor to loss of decay heat removal events in NRC Generic Letters 87-12 and 88-17.

The NA-1 TS require a minimum RCS flow of 3,000 gpm while performing reductions in RCS boron concentrations. There is presently no TS requiring this minimum flow in the NA-2 TS. However, it is addressed in the NA-2 Bases for the RCS. This change would add a specification to the NA-2 TS identical to the NA-1 TS, requiring 3,000 gpm RCS flow during boron concentration reductions and thus ensuring that even though a lower RHR flow rate may be allowed, adequate RHR flow will be explicitly required for uniform mixing of the RCS. In addition, several administrative changes would be made to the TS to provide consistency and clarity between the NA-1&2 TS.

The proposed changes would revise the current minimum required RHR system flow rate of 3,000 gpm to 2,000 gpm in Modes 5 and 6 if the reactor has been shut down for at least 100 hours, and if there is sufficient decay heat removal to maintain the RCS temperature less than or equal to 140° F. At the current 3,000 gpm flow rate, the RHR system is more susceptible to vortex formation at the RHR pump suction piping during mid-loop operation. Vortexing can cause RHR system air ingestion and subsequent pump cavitation, a contributor to loss of decay heat removal events.

Domestic nuclear power plants have experienced degradation or loss of RHR flow during mid-loop operation. Industry and NRC documents have addressed the loss of decay heat removal (DHR) during nonpower operation. Two of these documents specifically discuss vortexing in RHR pump suction piping during mid-loop operation as a contributor to loss of RHR flow. These are NRC IE Information Notice 86-101 and INPO Significant Operating Experience Report (SOER) 85-4.

Revising the current minimum required RHR system flow rate of 3,000 gpm during Modes 5 and 6 to permit a minimum RHR system flow rate of 2,000 gpm if the reactor has been shut down and entered into Mode 3 for at least 100 hours, and if there is sufficient DHR to maintain the RCS temperature at less than or equal to 140° F, would reduce the susceptibility to vortex formation at the RHR pump suction piping during mid-loop operation. Vortexing can cause RHR system air ingestion and subsequent pump cavitation and loss of decay heat removal capability. The change would allow greater flexibility and accuracy in RCS temperature control during all periods of low decay heat generation. DHR removal requirements were evaluated and determined that after the reactor has shut down and entered into Mode 3 for at least 100 hours, there is adequate capacity to maintain reactor pressure vessel water temperature less than or equal to 140° F during Modes 5 and 6 operation. The evaluation also determined that the consequences of the boron dilution accident analyses in the NA-1&2 Updated Final Safety Analysis Report (UFSAR) remain acceptable and that the Specification 3/4.1.1.3.1 requirement of RHR flow greater than or equal to 3,000 gpm ensures adequate boron mixing during planned reductions in RCS boron concentration.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has evaluated the proposed changes in accordance with the criteria above and has made the following determination that the proposed changes do not involve a significant hazards consideration as defined in 10 CFR 50.92 because the changes would not:

1. result in a significant increase in either the probability of occurrence of any of the UFSAR accidents or their potential consequences. The boron dilution accident in Mode 6 was evaluated with reduced RCS volume and the proposed reduced RHR flow rate, and there were no increases in the probability or consequences of dilution events. Adequate mixing is provided during reductions in RCS boron concentration in all modes by the 3,000 gpm reactor coolant minimum flow rate requirement of TS 3.1.1.3.1, so the probability of boron stratification is not increased. The requirements for the reactor to be shut down and entered into Mode 3 for at least 100 hours and to maintain reactor coolant temperature less than or equal 140° F will ensure adequate DHR capacity for the existent decay heat generation so there is no concern for fuel or pressure boundary design limits. The intent of reducing the RHR flow is to decrease the susceptibility of vortexing in the RHR pump suction piping during mid-loop operation, thereby reducing the probability of RHR pump malfunction and therefore reduce the probability of loss of decay heat removal while in mid-loop operation.

Also, the addition of the TS to NA-2 would impose additional controls and restrictions on the operation of the plant which are consistent with NA-1 specifications and are consistent with, and cited in, the Bases of the NA-2 TS.

2. create the possibility of a new or different kind of accident from any accident previously evaluated. The effect of reduced RHR flow includes the reduction of heat transfer from the RHR system to the component cooling system, but since this effect can be achieved through other means, the reduced heat transfer does not create the possibility of new or different accidents. The requirements for the reactor to be shut down and entered into Mode 3 for at least 100 hours and to maintain reactor coolant temperature less than or equal to 140° F will ensure adequate DHR capacity so that there is no concern for fuel or pressure boundary design limits.

Also, the addition of the TS to NA-2 would impose additional controls and restrictions on the operation of the plant which are consistent with the NA-1 specifications and are consistent with, and cited in, the Bases of the NA-2 TS.

3. result in a significant reduction in a margin of safety. For the boron dilution basis, TS 3.1.1.3.1 requires a minimum reactor coolant flow rate of 3,000 gpm during all modes of operation, which provides adequate mixing, prevents stratification and ensures that reactivity changes will be gradual during boron concentration reductions in the RCS. A margin of safety can be implied from the 10 CFR Part 50, Appendix A, General Design Criterion 34, "Residual Heat Removal," wherein the RHR system must provide adequate heat transfer of residual heat at a rate such that specified acceptable fuel design limits and the design conditions of the reactor coolant pressure boundary are not exceeded. The proposed TS changes require that the reactor be shut down and entered into Mode 3 for at least 100 hours and that the RCS temperature be maintained at less than or equal to 140° F during reduced RHR flow operation, which will not challenge the fuel or reactor coolant pressure boundary design limits and the GDC-34 margin of safety for RHR will not be reduced.

Also, the addition of the TS to NA-2 would impose additional controls and restrictions on the operation of the plant which are consistent with the NA-1 TS and are consistent with, and cited in, the Bases of the NA-2 TS.

The staff has reviewed the licensee's no significant hazards consideration determination analysis and agrees with the above conclusion. Therefore, the staff proposes to determine that the proposed changes do not involve a significant hazards consideration.

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*NRC Project Director:* Herbert N. Berkow

**Virginia Electric and Power Company, Docket Nos. 50-338 and 50-339, North Anna Power Station, Units No. 1 and 2, Louisa County, Virginia**

*Date of amendment request:* June 26, 1990

*Description of amendment request:* The proposed changes to the NA-1&2 Technical Specifications (TS) would revise the operability requirements of the emergency and vital busses of AC distribution. The list of busses in the operability section of the specification and the action statements would both be made more similar to the Standard TS for Westinghouse Pressurized Water Reactors. Action statements for the vital busses and the inverters would also be separated for clarity. In the current specification, the inverter requirement is not clearly stated. These changes add the requirement to have the 120VAC vital busses powered from the inverters and provide actions when an inverter is not in service. These changes require re-energization of a vital bus in less time than the current specification, 2 hours versus 8 hours, and require restoration of the inverter as the source of power to the vital bus within 24 hours. The proposed requirements will not reduce vital bus or inverter reliability. Rather, reliability for the vital busses will be enhanced because of the more strict re-energization requirement and the more strict requirement to have the inverters as the source of vital bus power.

The applicable accident analysis in the NA-1&2 Updated Final Safety Analysis Report (UFSAR) is "Loss of Offsite-Power to the Station Auxiliaries," found in Section 15.2.9. The accident sequence includes the vital instruments being first supplied by emergency power sources, next by the batteries, then by the emergency diesel generators. The vital power system has sufficient capacity to supply vital equipment necessary for safe operation and shutdown of the reactor while maintaining the acceptable fuel limits and containment integrity. The system has independence and redundancy of components to ensure the performance of safety functions despite a single failure. For this reason, the TS allow for one vital bus to be inoperable for a short period of time and then restored. These proposed changes involve neither an increase in the number of inoperable busses nor an increase in the time of inoperability. Rather they include a reduction in the allowed time a single vital bus is de-energized to 2 hours and they include the requirement that the class 1E inverters must be the source of power to the vital bus within 24 hours where no such requirement was previously made. Therefore, the accident analyses are not affected by the proposed TS changes.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has evaluated the proposed change request against the standards provided above and has determined that these changes will not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated. No equipment or procedure currently being used is changed in any way that increases accident probability or consequence. No new or unique accident precursors are introduced by these changes nor do these changes alter the conditions or assumptions of the accident analysis or the bases of the current TS.

The probability of a vital bus being de-energized preventing its function in the event of an accident is decreased because these changes require re-energization of the vital bus within less time that the current specification and they require the ultimate restoration of a power source which is seismically qualified and will not adversely affect the bistables of the vital protection systems.

These changes do not increase the number of vital busses which may be inoperable at any time nor increase the time of inoperability. Therefore, all the possible configurations of the system are still within the bounds of the accident analyses contained in the UFSAR. Thus, the consequences of an accident are unchanged by these amendments.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed changes require no alteration in the facility nor additional tests or experiments. The only procedural change is to reduce the restoration time of a vital bus and to require a more reliable ultimate power source. Nothing new is added or done. No conditions or assumptions of the accident analysis or bases of the current specification are altered. No accident which is new or different from any previously identified is created. Therefore, no further accident probability is created which has not already been evaluated in the UFSAR.

3. Involve a significant reduction in a margin of safety. The results of the accident analyses documented in the UFSAR continue to bound operation under the proposed changes. The analyses allow for a single failure of vital bus. Compliance with these proposed specification changes ensure restoration of one inoperable vital bus in less allowed action time than current specifications and ensures ultimate restoration of the seismically qualified inverters as the vital power source. These changes do not alter the conditions or assumptions of the accident analysis or the bases of the current TS. Therefore, there is no reduction in the safety margin.

The staff has made a preliminary review of the licensee's analyses of the proposed changes and agrees with the licensee's conclusion that the three standards in 10 CFR 50.92(c) are met. Therefore, the staff proposes to determine that the proposed

amendments do not involve a significant hazards consideration.

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*NRC Project Director:* Herbert N. Berkow

**Virginia Electric and Power Company, Docket No. 50-280, Surry Power Station, Unit No. 1, Surry County, Virginia**

*Date of amendment request:* June 26, 1990

*Description of amendment request:* The proposed Technical Specification changes would eliminate the present interim operating restrictions for the Surry, Unit 1 emergency switchgear room (ESGR) air handling units and provide specifications consistent with the permanent air handling unit design configuration.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has reviewed the proposed changes in accordance with the requirements of 10 CFR 50.92 and has determined that the request does not involve a significant hazards consideration in that it would not:

1. Involve a significant increase in the probability of occurrence or consequences of an accident previously evaluated. Replacement of the Air Handling Units restores the Unit 1 portion of the Main Control Room and Emergency Switchgear Room AC system to the original design. There is no impact on the probability or consequences of any previously evaluated accident.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated. The modification returns the Air Handling Units (AHU) to the original design. Therefore the interim operating restrictions are no longer necessary and removal of those restrictions does not create a new or different accident from those previously evaluated.

3. Involve a significant reduction in a margin of safety. The larger capacity AHUs restore the Unit 1 [p]ortion of the Main Control Room and Emergency Switchgear Room AC system to the original design condition. Therefore, eliminating the interim operating restrictions on the Unit 1 AHUs does not reduce the [m]argin of [s]afety.

Based on the staff's review of the licensee's evaluation, the staff agrees with the licensee's conclusions as stated above. Therefore, the staff proposes to determine that the proposed amendment does not involve a significant hazards consideration.

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*NRC Project Director:* Herbert N. Berkow

**Virginia Electric and Power Company, Docket Nos. 50-280 and 50-281, Surry Power Station, Unit Nos. 1 and 2, Surry County, Virginia**

*Date of amendment requests:* June 25, 1990

*Description of amendment requests:* The proposed change to the Technical Specifications would delete the 100 psi overpressure leakage test requirement after the reactor coolant system has been closed. In place of the above cited test, a leakage test would be performed at normal operating pressure and temperature in accordance with the ASME Code requirements.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has reviewed the proposed change against the criteria of 10 CFR 50.92 and has concluded that the request does not involve a significant hazards consideration in that it would not:

1. Involve a significant increase in the probability of occurrence or consequences of any accident previously evaluated. Removing the 100 psi overpressure test requirement and replacing it with a requirement to perform a system leakage test at normal temperature and pressure does, in accordance with the ASME Code, not impact plant design or operations. Using the pressure required by the ASME Code at which the Reactor Coolant System leakage test is performed will reduce the possibility of a challenge to the pressurizer safety valves and therefore reduces the probability of a previously analyzed accident. Therefore, the probability of occurrence or consequences of any accident have not increased.

2. Create the possibility of a new or different type of accident from any accident previously evaluated. Plant design and operations have not been changed. The reduced pressure system leakage test will be performed in accordance with the ASME Code requirements. The testing does not affect system design or operation. Therefore no new or different kind of accident is created.

3. Involve a significant reduction in a margin of safety. No physical plant modifications or changes in plant operations are being made. System leakage tests will be performed in accordance with the ASME Code requirements and will have no impact on the margin of safety.

Based on the staff review of the licensee's evaluation, the staff agrees with the licensee's conclusions as stated above. Therefore, the staff proposes to determine that the proposed amendments do not involve a significant hazards consideration.

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*NRC Project Director:* Herbert N. Berkow

**Virginia Electric and Power Company, Docket Nos. 50-280 and 50-281, Surry Power Station, Unit Nos. 1 and 2, Surry County, Virginia**

*Date of amendment requests:* June 25, 1990

*Description of amendment requests:* The proposed change to the Technical Specifications (TS) would extend the expiration date associated with TS 3.1.A.3.c to retain the allowable pressurizer safety valves setpoint tolerance to +5%, -1% of the nominal setpoint through Cycle 11 for both Surry, Units 1 and 2. The current footnote refers only to Cycle 10 for Surry Units 1 and 2, therefore, the footnote would be modified accordingly.

*Basis for proposed no significant hazards consideration determination:* The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to an operating license for a

facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in a margin of safety.

The licensee has reviewed the proposed change against the criteria of 10 CFR 50.92 and has concluded that the request does not involve a significant hazards consideration in that it would not:

1. Involve a significant increase in the probability of occurrence or consequences of any accident or malfunction of equipment which is important to safety and which has been evaluated in the [Updated Final Safety Analysis Report] (UFSAR)]. The proposed change effectively recognizes the potential shift in lift setpoint due to testing methodology. As such, the setpoint shift being positive, the probability of a safety valve challenge may be reduced. The consequences of such a challenge are unaffected as the UFSAR analysis remains bounding within the proposed setpoint tolerance. In addition, the Units 1 and 2 valve setpoint shift is expected to be in the same range as the Unit 2 valve test results (+3.5% to +5%) and therefore no increase in the consequences of any accident or malfunction of equipment which is important to safety is expected.

2. Create the possibility of a new or different type of accident from those previously evaluated in the safety analysis report. No modifications are being made to the pressurizer safety valves for either unit at this time. The installed temporary strap-on temperature instrumentation has no operational impact on valve performance. With the setpoint change expected to be in the same range as the Unit 2 valve test results, there is no new or different kind of accidents or accident precursors expected. The additional measures being implemented are only being used to further ensure that the system pressure will remain below 2750 psia (110% of design pressure) during any analyzed transient or operating condition.

3. Involve a significant reduction in the margin of safety. Plant operations are not being changed. Although accident analysis assumptions have been modified to assume an initial 5.4% shift in pressurizer safety valve lift pressure, there is no reduction in the margin of safety since the 110% design pressure is not exceeded in any UFSAR evaluated accident. For valve setpoint tolerance consistent with setpoint shift experienced during testing, the accident analysis remains bounding.

Based on the staff's review of the licensee's evaluation, the staff agrees with the licensee's conclusions as stated above. Therefore, the staff proposes to determine that the proposed amendments do not involve significant hazards considerations.

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## PREVIOUSLY PUBLISHED NOTICES OF CONSIDERATION OF ISSUANCE OF AMENDMENTS TO OPERATING LICENSES AND PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING

The following notices were previously published as separate individual notices. The notice content was the same as above. They were published as individual notices either because time did not allow the Commission to wait for this biweekly notice or because the action involved exigent circumstances. They are repeated here because the biweekly notice lists all amendments issued or proposed to be issued involving no significant hazards consideration.

For details, see the individual notice in the **Federal Register** on the day and page cited. This notice does not extend the notice period of the original notice.

**Texas Utilities Electric Company, Docket No. 50-445, Comanche Peak Steam Electric Station, Unit 1, Somervell County, Texas**

*Date of application for amendment:* June 22, 1990

*Brief description of amendment request:* The proposed amendment would change Technical Specification 3.2.1 and Surveillance Requirements 4.2.1 and 4.2.2 to allow Base Load Operation as an alternative to the normal operating mode in order to maintain the radial peaking factor within the range assumed in the accident analyses of the Final Safety Analysis Report. In addition, the Bases to Section 3/4.2.1 would be revised to describe the purpose and concept of Base Load Operation and Section 6.9.1 would require that limits to peaking factor and minimum power level for Base Load Operation be established and reported in the Radial Peaking Factor Limit Report for at least each reload core.

*Date of individual notice in* **Federal Register:** June 29, 1990 (55 FR 26800)

*Expiration date of individual notice:* July 30, 1990

*Local Public Document Room location:* University of Texas at Arlington Library, Government Publications/Maps, 701 South Cooper, P.O. Box 19497, Arlington, Texas 76019.

## NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

During the period since publication of the last biweekly notice, the Commission has issued the following amendments. The Commission has determined for each of these amendments that the application complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

Notice of Consideration of Issuance of Amendment to Facility Operating License and Proposed No Significant Hazards Consideration Determination and Opportunity for Hearing in connection with these actions was published in the **Federal Register** as indicated. No request for a hearing or petition for leave to intervene was filed following this notice.

Unless otherwise indicated, the Commission has determined that these amendments satisfy the criteria for categorical exclusion in accordance with 10 CFR 51.22. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared for these amendments. If the Commission has prepared an environmental assessment under the special circumstances provision in 10 CFR 51.12(b) and has made a determination based on that assessment, it is so indicated.

For further details with respect to the action see (1) the applications for amendments, (2) the amendments, and (3) the Commission's related letters, Safety Evaluations and/or Environmental Assessments as indicated. All of these items are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document rooms for the particular facilities involved. A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Reactor Projects.

**Alabama Power Company, Docket No. 50-364, Joseph M. Farley Nuclear Plant, Unit 2, Houston County, Alabama.**

*Date of amendment request:* February 8, 1990 Brief Description of amendment: The amendment modifies the snubber visual inspection requirements in Technical Specification (TS) 4.7.9 on a one-time basis to preclude an additional plant shutdown prior to the next scheduled refueling outage. The amendment is based on the application of statistical methodology to determine visual inspection intervals which meet the same acceptance confidence level as the current requirements. In addition, a similar amendment was granded on March 30, 1987, on a one-time basis pending completion of generic studies by the Commission. Those generic studies are underway but have not yet been completed.

*Date of issuance:* July 11, 1990

*Effective date:* July 11, 1990

*Amendment No.:* 75

*Facility Operating License No. NPF-8.* Amendment revises the Technical Specifications.

*Date of initial notice in* **Federal Register:** April 4, 1990 (55 FR 12588) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 11, 1990.

*No significant hazards consideration comments received:* No

*Local Public Document Room location:* Houston-Love Memorial Library, 212 W. Burdeshaw Street, P.O. Box 1369, Dothan, Alabama 36302

**Arizona Public Service Company, et al., Docket Nos. STN 50-528 and STN 50-529, Palo Verde Nuclear Generating Station , Units 1 and 2, Maricopa County, Arizona**

*Date of application for amendments:* June 30, 1989 and August 30, 1989.

*Brief description of amendments:* The amendment modifies Technical Specification (TS) 3/4.1.3: Limiting Conditions for Operation (LCO) 3.1.3.1, 3.1.3.2, 3.1.3.5, 3.1.3.6, 3.1.3.7, Surveillance Requirements (SR) 4.1.3.5, 4.1.3.6, 4.1.3.7, TS 3/4.3.1: LCO 3.3.1, TS 3/4.10.4: LCO 3.10.4, and SR 4.10.4.1 and 4.10.4.2. These modifications are primarily format and editorial changes to clarify operation when one or two Control Element Assembly Calculators (CEACs) are inoperable.

*Date of issuance:* June 25, 1990

*Effective date:* 45 days after issuance

*Amendment Nos.:* 50 and 36

*Facility Operating License Nos. NPF-41 and NPF-51:* Amendments changed the Technical Specifications.

*Date of initial notice in* **Federal Register:** April 4, 1990 (55 FR 12588) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated June 25, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Phoenix Public Library, Business and Science Division, 12 East McDowell Road, Phoenix, Arizona 85004.

**Arizona Public Service Company, et al., Docket Nos. STN 50-528, STN 50-529 and STN 50-530, Palo Verde Nuclear Generating Station, Units 1, 2 and 3, Maricopa County, Arizona**

*Date of application for amendments:* July 26, 1989 as superseded March 16, 1990

*Brief description of amendments:* The amendments revise Technical Specifications Section 6.5.1, Plant Review Board (PRB), and Section 6.5.2, Technical Review and Control Activities. The amendments reflect an organizational change and change the composition of the PRB in that specific titles of the members are deleted and replaced with a generic phrase. The amendments also delete the review of administrative control procedures and changes that do not affect nuclear safety from the PRB responsibilities.

*Date of issuance:* July 2, 1990

*Effective date:* 45 days from date of issuance

*Amendment Nos.:* 51, 37, and 23

*Facility Operating License Nos. NPF-41, NPF-51 and NPF-74:* Amendments changed the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 30, 1990 (55 FR 21960) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated July 2, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Phoenix Public Library, Business and Science Division, 12 East McDowell Road, Phoenix, Arizona 85004.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Phoenix Public Library, Business and Science Division, 12 East McDowell Road, Phoenix, Arizona 85004.

**Baltimore Gas and Electric Company, Docket Nos. 50-317 and 50-318, Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, Calvert County, Maryland**

*Date of application for amendments:* April 30, 1990

*Brief description of amendments:* These amendments include a footnote to Technical Specification 3/4.9.13, Spent Fuel Cask Handling Crane, which allows one-time movement of two separate special spent fuel shipping casks to and from the cask pit passing over spent fuel assemblies stored in the spent fuel pool. The footnote identifies the specific criteria to be met prior to movement of the casks over the fuel stored in the spent fuel pool.

*Date of issuance:* July 6, 1990

*Effective date:* July 6, 1990

*Amendment Nos.:* Unit 1 No. 144; Unit 2 No. 127

*Facility Operating License Nos. DPR-53 and DPR-69.* Amendments revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 30, 1990 (55 FR 21966) The Commission's related evaluation of these amendments is contained in a Safety Evaluation dated July 6, 1990.

*No significant hazards consideration comments received:*

*No*

*Local Public Document Room location:* Calvert County Library, Prince Frederick, Maryland.

**Connecticut Yankee Atomic Power Company, Docket No. 50-213, Haddam Neck Plant, Middlesex County, Connecticut**

*Date of application for amendment:* April 24, 1990

*Brief description of amendment:* The amendment will revise the Technical Specifications (TS) to reflect modifications performed on various fire protection systems. These changes include increasing the number of smoke and heat detectors that are required to be operable in the diesel generator rooms A and B and in the turbine lube oil reservoir area, changing the TSs to reflect the modifications made to the turbine lube oil system to provide an automatic suppression system, and modify the $CO_2$ system in the cable vault room.

*Date of Issuance:* July 2, 1990

*Effective date:* July 2, 1990

*Amendment No.:* 126

*Facility Operating License No. DPR-61.* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 30, 1990 (55 FR 21968) The Commission's related evaluation of this amendment is contained in a Safety Evaluated dated July 2, 1990

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Russell Library, 123 Broad Street, Middletown, Connecticut 06457.

**Connecticut Yankee Atomic Power Company, Docket No. 50-213, Haddam Neck Plant, Middlesex County, Connecticut**

*Date of application for amendment:* March 14, 1990

*Brief description of amendment:* The amendment will allow testing of the individual rod position indication (IRPI) system during power operation of the Haddam Neck Plant. The Technical Specification (TS) Special Test Exception 3.10.4, Position Indication System-Operating will allow suspension of the following limiting conditions for operation (LCOs) for a maximum of 48 hours for each cycle during the performance of the above test:

| | |
|---|---|
| Movable Control Assemblies | 3.1.3.1 |
| Position Indicating Systems-Operating | 3.1.3.2 |
| Shutdown Rod Insertion Limit | 3.1.3.5 |
| Control Group Insertion Limits (4 Loops) | 3.1.3.6.1 |
| Control Group Insertion Limits (3 Loops) | 3.1.3.6.2 |

*Date of Issuance:* July 9, 1990

*Effective date:* July 9, 1990

*Amendment No.:* 127

*Facility Operating License No. DPR-61.* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 30, 1990 (55 FR 21968) The Commission's related evaluation of this amendment is contained in a Safety Evaluation dated July 9, 1990

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Russell Library, 123 Broad Street, Middletown, Connecticut 06457.

**Consolidated Edison Company of New York, Docket Nos. 50-003 and 50-247, Indian Point Nuclear Generating Unit Nos. 1 and 2, Westchester County, New York**

*Date of application for amendments:* March 18, 1988, superseded March 27, 1990, as supplemented May 11, 1990.

*Brief description of amendments:* The amendments revise the Appendix A Technical Specifications for Unit 2 and the Appendix B Technical Specifications for Units 1 and 2. The amendments involve editorial changes, correct typographical errors, adjust line spacing (repagination), and adjust text formats. In addition, the amendments delete pertinent portions of the Technical Specifications that related to one-time only date extensions which have since expired and to plant equipment which has been removed from service pursuant to previously approved amendments. However, the amendments would not make any substantive changes to the Technical Specifications.

*Date of issuance:* June 26, 1990

*Effective date:* June 26, 1990

*Amendment Nos.:* 42 for Unit 1 and 152 for Unit 2.

*Facility Operating License Nos. DPR-5 and DPR-26:* Amendments revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 18, 1988 (53 FR 17786) and renoticed April 18, 1990 (55 FR 14504) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated June 26, 1990.

*No significant hazards consideration comments received:* No

*Local Public Document Room location:* White Plains Public Library, 100 Martine Avenue, White Plains, New York 10610.

**Consumers Power Company, Docket No. 50-255, Palisades Plant, Van Buren County, Michigan**

*Date of application for amendment:* March 6, 1990, as supplemented June 21, 1990

*Brief description of amendment:* This amendment revises the requirement of Technical Specification (TS) 4.14 by extending, by approximately two months, the due date for the periodic steam generator inspections which otherwise would be due by July 4, 1990.

*Date of issuance:* June 28, 1990

*Effective date:* June 28, 1990

*Amendment No.:* 132

*Provisional Operating License No. DPR-20.* The amendment revises the Technical Specifications.

*Date of initial notice in* **Federal Register:** April 16, 1990 (55 FR 14147) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated June 28, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Van Zoeren Library, Hope College, Holland, Michigan 49423.

**Entergy Operations, Inc., Docket No. 50-368, Arkansas Nuclear One, Unit 2, Pope County, Arkansas**

*Date of application for amendment:* March 2, 1990

*Brief description of amendment:* The amendment revises the Special Test Exception of the ANO-2 TSs to clarify Specification 3.10.2 concerning the specific requirements for maintaining linear heat rate (LHR). Specifically, this TS change would allow the use of either the Core Operating Limit Supervisory System or the Core Protection Calculators to monitor LHR during physics tests. In addition, the amendment allows the deletion of the wording requiring the use of the Incore Detector Monitoring System for determining linear heat rate associated with Surveillance Requirement 4.10.2.2.

*Date of issuance:* July 3, 1990

*Effective date:* 30 days from date of issuance

*Amendment No.:* 105

*Facility Operating License No. NPF-6.* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 30, 1990 (55 FR 21961) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 3, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Tomlinson Library, Arkansas Tech University, Russellville, Arkansas 72801

**Entergy Operations, Inc., Docket Nos. 50-313 and 50-368, Arkansas Nuclear One, Units 1 and 2, Pope County, Arkansas**

*Dates of amendment requests:* October 30, 1987, as supplemented September 27, 1989 for Units 1 and 2 and January 29, 1990 for Unit 1 only.

*Brief description of amendments:* The amendments changed the expiration date for the Unit 1 Facility Operating License No. DPR-51 from December 6, 2008 to May 20, 2014, and changed the expiration date for the Unit 2 Facility Operating License No. NPF-6 from December 6, 2012 to July 17, 2018.

*Date of issuance:* July 6, 1990

*Effective date:* July 6, 1990

*Amendment Nos.:* 131 and 106

*Facility Operating License Nos. DPR-51 and NPF-6.* Amendment revised the expiration date of the licenses.

*Date of initial notice in* **Federal Register:** February 8, 1989 (54 FR 6187) The September 27, 1989 submittal for Units 1 and 2 and the January 29, 1990 submittal for Unit 1 only provided additional clarifying information and did not affect the finding of the initial notice. The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 6, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Tomlinson Library, Arkansa Tech University, Russellville, Arkansas 72801

**Entergy Operations, Inc., Docket Nos. 50-313 and 50-368, Arkansas Nuclear One, Units 1 and 2, Pope County, Arkansas**

*Dates of amendment requests:* April 10, 1990

*Brief description of amendments:* The amendment modified the Arkansas Nuclear One, Units 1 and 2 (ANO-1&2) Technical Specifications (TSs) to allow the use of chemicals other than just chlorine to control the biological fouling of the service water system. The proposed amendment modified the specific references to chlorination requirements to reflect the use of equally effective biocides associated with the ANO-1 Reactor Building Cooling System Surveillance Requirement 4.5.2.1.2, and the ANO-2 Containment Systems Surveillance Requirement 4.6.2.3, and the related TSs bases for both units.

*Date of issuance:* July 6, 1990

*Effective date:* July 6, 1990

*Amendment Nos.:* 132 and 107

*Facility Operating License Nos. DPR-51 and NPF-6.* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 30, 1990 (55 FR 21961) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 6, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Tomlinson Library, Arkansas Tech University, Russellville, Arkansas 72801

**Florida Power and Light Company, Docket Nos. 50-250 and 50-251, Turkey Point Plant Units 3 and 4, Dade County, Florida**

*Date of application for amendments:* February 7, 1990, as supplemented April 24, 1990

*Brief description of amendments:* These amendments change TS 6.5.2.2 by removing the specific composition list for the Company Nuclear Review Board (CNRB), and revise TS 6.5.2.6 to redefine a quorum of the CNRB.

*Date of issuance:* July 3, 1990

*Effective date:* July 3, 1990

*Amendment Nos.* 136 and 131

*Facility Operating Licenses Nos. DPR-31 and DPR-41:* Amendments revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** March 21, 1990 (55 FR 10532) The April 24, 1990 letter provided supplemental information in response to the staff's request. This information did not alter the staff's initial determination of no significant hazards consideration. The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated July 3, 1990.

*No significant hazards consideration comments received:* No

*Local Public Document Room location:* Environmental and Urban Affairs Library, Florida International University, Miami, Florida 33199.

**Illinois Power Company and Soyland Power Cooperative, Inc., Docket No. 50-461, Clinton Power Station, Unit No. 1, DeWitt County Illinois**

*Date of application for amendment:* February 5, 1988

*Description of amendment request:* The amendment added a specific equipment identification number to an integrity verification in the Control Room Ventilation System section of the Clinton Power Station Technical Specifications.

*Date of issuance:* July 9, 1990

*Effective date:* July 9, 1990

*Amendment No.:* 38

*Facility Operating License No. NPF-62.* The amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** June 29, 1988 (53 FR 24512) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 9, 1990.

*No significant hazards consideration comments received:* No

*Local Public Document Room location:* The Vespasian Warner Public Library, 120 West Johnson Street, Clinton, Illinois 61727.

**Indiana Michigan Power Company, Docket No. 50-316, Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2, Berrien County, Michigan**

*Date of application for amendments:* March 29, 1989

*Brief description of amendments:* The amendments change Technical Specification (TS) Table 3.3-2, "Reactor Trip System Instrumentation Response Times," to explicitly require time response testing of the low set point power range neutron flux (PRNF) reactor trip.

*Date of issuance:* June 27, 1990

*Effective date:* June 27, 1990

*Amendment Nos.:* 139, 126

*Facility Operating Licenses Nos. DPR-58 and DPR-74.* Amendments revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** April 4, 1990 (55 FR 12595). The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated June 27, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Maude Preston Palenske Memorial Library, 500 Market Street, St Joseph, Michigan 49085.

**Indiana Michigan Power Company, Docket Nos. 50-315 and 50-316, Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2, Berrien County, Michigan**

*Date of application for amendments:* September 22, 1989

*Brief description of amendments:* The amendments change Technical Specifications (TS) Table 4.3-1, "Reactor Trip System Instrumentation Surveillance Requirements," to provide an exemption from TS 4.0.4, "Applicability," so that hot-leg to cold-leg delta T measurements may be made at full power. An editorial change was also made to Note 9 of Table 4.3-1 for readability.

*Date of issuance:* June 29, 1990

*Effective date:* June 29, 1990

*Amendments Nos.:* 141

*Facility Operating Licenses Nos. DPR-58 and DPR-74.* Amendments revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** April 4, 1990 (55 FR 12595). The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated June 29, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Maude Preston Palenske Memorial Library, 500 Market Street, St. Joseph, Michigan 49085.

**Iowa Electric Light and Power Company, Docket No. 50-331, Duane Arnold Energy Center, Linn County, Iowa**

*Date of application for amendment:* November 3, 1989, as supplemented February 26, 1990

*Brief description of amendment:* The amendment revised Section 6.0, "Administrative Controls," of the Duane Arnold Energy Center Technical Specifications, by removing the organizational chart of Figure 6.2-1, in accordance with NRC Generic Letter 88-06. Requirements for onsite and offsite organizations are incorporated into revised Specification 6.2. Revised references to updated standard ANSI/ANS-3.1-1978, regarding personnel training and qualifications were also incorporated.

*Date of issuance:* July 6, 1990

*Effective date:* July 6, 1990

*Amendment No.:* 166

*Facility Operating License No. DPR-49.* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** March 21, 1990 (55 FR 10539) The Commission's related evaluation of

the amendment is contained in a Safety Evaluation dated July 6, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Cedar Rapids Public Library, 500 First Street, S. E., Cedar Rapids, Iowa 52401.

**Niagara Mohawk Power Corporation, Docket No. 50-220, Nine Mile Point Nuclear Station, Unit No. 1, Oswego County, New York**

*Date of application for amendment:* December 27, 1988, as supplemented on August 28, 1989 and November 17, 1989.

*Brief description of amendment:* This amendment revises Sections 3.1.1, 4.1.1, and associated Bases to add a requirement that provides assurance of the Scram Discharge Operability. This amendment also revises Table 3.2.7 to redesignate a surveillance requirement, combine changes made through Amendment Nos. 43 and No. 44 to Table 3.2.7, and delete a note in Table 3.2.7 which no longer applies.

*Date of issuance:* June 29, 1990

*Effective date:* June 29, 1990

*Amendment No.:* 117

*Facility Operating License No. DPR-63:* Amendment revises the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 16, 1990 (55 FR 20361) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated June 29, 1990.

*No significant hazards consideration comments received:* No

*Local Public Document Room location:* Reference and Documents Department, Penfield Library, State University of New York, Oswego, New York 13126.

**Niagara Mohawk Power Corporation, Docket No. 50-220, Nine Mile Point Nuclear Station, Unit No. 1, Oswego County, New York**

*Date of application for amendment:* December 27, 1988, as supplemented on August 28, 1989 and November 17, 1989.

*Brief description of amendment:* This amendment revises Sections 3.1.1, 4.1.1, and associated Bases to add a requirement that provides assurance of the Scram Discharge Operability. This amendment also revises Table 3.2.7 to redesignate a surveillance requirement, combine changes made through Amendment Nos. 43 and No. 44 to Table 3.2.7, and delete a note in Table 3.2.7 which no longer applies.

*Date of issuance:* July 3, 1990

*Effective date:* July 3, 1990

*Amendment No.:* 118

*Facility Operating License No. DPR-63:* Amendment revises the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 16, 1990 (55 FR 20361) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 3, 1990.

*No significant hazards consideration comments received:* No

*Local Public Document Room location:* Reference and Documents Department, Penfield Library, State University of New York, Oswego, New York 13126.

**Niagara Mohawk Power Corporation, Docket No. 50-410, Nine Mile Point Nuclear Station, Unit No. 2, Scriba, New York**

*Date of application for amendment:* April 27, 1990

*Brief Description of amendment:* The amendment extends the Technical Specification surveillance intervals by five percent or less for certain instrument calibrations, logic system functional tests, response time tests, leak rate tests, position indication tests, functional tests of vacuum breakers and batteries.

*Date of issuance:* July 10, 1990

*Effective date:* July 10, 1990

*Amendment No.:* 18

*Facility Operating License No. NPF-69:* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 16, 1990 (55 FR 20362) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 10, 1990.

*Significant hazards consideration comments received:* No

*Local Public Document Room location:* Reference and Documents Department, Penfield Library, State University of New York, Oswego, New York 13126.

**Northeast Nuclear Energy Company, et al., Docket No. 50-423, Millstone Nuclear Power Station, Unit No. 3, New London County, Connecticut**

*Date of amendment request:* March 30, 1990

*Brief description of amendment:* The amendment changes the values in Technical Specification (TS) Table 3.3-4, "Engineered Safety Features Actuation System Instrumentation Trip Setpoints", associated with the steam generator water level setpoint.

*Date of issuance:* July 9, 1990

*Effective date:* July 9, 1990

*Amendment No.:* 52

*Facility Operating License No. NPF-49.* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 30, 1990 (55 FR 21974) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 9, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* Learning Resources Center, Thames Valley State Technical College, 574 New London Turnpike, Norwich, Connecticut 06360.

**Omaha Public Power District, Docket No. 50-285, Fort Calhoun Station, Unit No. 1, Washington County, Nebraska**

*Date of amendment request:* March 19, 1990

*Brief description of amendment:* The amendment made changes to pages 5-1, 5-5, 5-8 and 5-19a of the Technical Specifications to incorporate several administrative changes.

*Date of issuance:* July 6, 1990

*Effective date:* July 6, 1990

*Amendment No.:* 132

*Facility Operating License No. DPR-40.* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 16, 1990 (55 FR 20364) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 6, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* W. Dale Clark Library, 215 South 15th Street, Omaha, Nebraska 68102

**Pacific Gas and Electric Company, Docket Nos. 50-275 and 50-323, Diablo Canyon Nuclear Power Plant, Units 1 and 2, San Luis Obispo County, California**

*Date of application for amendments:* September 19, 1989, as supplemented by letter dated June 12, 1990 (Reference LAR 89-12).

*Brief description of amendments:* The amendments revised Technical Specification to delete the reactor trip on steam generator water level-low coincident with steam/feedwater flow mismatch (low feedwater flow reactor trip) following installation of a new digital feedwater control system.

*Date of issuance:* July 12, 1990

*Effective date:* July 12, 1990

*Amendment Nos.:* 56 and 55

*Facility Operating License Nos. DPR-80 and DPR-82:* Amendments changed the Technical Specifications.

*Date of initial notice in* **Federal Register:** October 18, 1989 (54 FR 42859) The Commission's related evaluation of

the amendments is contained in a Safety Evaluation dated July 12, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* California Polytechnic State University Library, Government Documents and Maps Department, San Luis Obispo, California 93407.

**Power Authority of The State of New York, Docket No. 50-286, Indian Point Unit No. 3, Westchester County, New York**

*Date of application for amendment:* April 12, 1989, as supplemented June 11, 1990.

*Brief description of amendment:* The amendment revises Technical Specification Table 3.5-5 and Table 4.1-1 to reflect the sensor locations, and the operability and surveillance requirements for a new temperature detection system located in the Primary Auxiliary Building.

*Date of issuance:* July 10, 1990

*Effective date:* July 10, 1990

*Amendment No.:* 100

*Facility Operating License No. DPR-64:* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 31, 1989 (54 FR 23321) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated

*No significant hazards consideration comments received:* No

*Local Public Document Room location:* White Plains Public Library, 100 Martine Avenue, White Plains, New York, 10610.

**Public Service Electric & Gas Company, Docket Nos. 50-272 and 50-311, Salem Generating Station, Unit Nos. 1 and 2, Salem County, New Jersey**

*Date of application for amendments:* October 17, 1989 and supplemented by letters dated March 26, 1990 and May 16, 1990. The supplemental letters did not increase the scope of the original amendment request and did not affect the staff's original no significant hazards determination.

*Brief description of amendments:* The amendments revised Salem Units 1 and 2 Technical Specification Surveillance Sections 4.8.2.3.2(d) and 4.8.2.5.2(d) to require a design duty cycle load profile service test (simulated emergency loads) or load service test (actual loads) for the 125 volt and 28 volt batteries in lieu of the (8) hour load service test currently specified in the Technical Specifications.

*Date of issuance:* July 3, 1990

*Effective date:* Units 1 and 2 are effective as of the date of issuance to be implemented within 60 days of the date of issuance.

*Amendment Nos.* 111 and 92

*Facility Operating License Nos. DPR-70 and DPR-75.* These amendments revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** December 13, 1989 (54 FR 51263) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated July 3, 1990.

*No significant hazards consideration comments received:* No

*Local Public Document Room location:* Salem Free Public Library, 112 West Broadway, Salem, New Jersey 08079

**Southern California Edison Company, et al., Docket Nos. 50-361 and 50-362, San Onofre Nuclear Generating Station, Unit Nos. 2 and 3, San Diego County, California**

*Date of application for amendments:* August 18, 1989 and supplemented May 31, 1990

*Brief description of amendments:* The proposed amendments establish a new Technical Specification (TS) 3/4.7.1.6 regarding atmospheric dump valves (ADVs). The proposed TS established the limiting condition for operation, associated action statements, surveillance requirements and bases for the atmospheric dump valves. The proposed TS requires that the ADVs be operable in Modes 1, 2, 3 and in Mode 4 when the steam generators are being used for decay heat removal.

*Date of issuance:* July 10, 1990

*Effective date:* July 10, 1990

*Amendment Nos.:* 89 and 79

*Facility Operating License Nos. NPF-10 and NPF-15:* Amendments changed the Technical Specifications.

*Date of initial notice in* **Federal Register:** October 18, 1989 (54 FR 42864) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated July 10, 1990.

*No significant hazards consideration comments received:* No. On May 31, 1990, the licensee supplemented the original application based on staff review and comments. This modification was a clarification and did not affect the proposed no significant hazards consideration determination as previously noticed.

*Local Public Document Room location:* Main Library, University of California, P.O. Box 19557, Irvine, California 92713.

**Vermont Yankee Nuclear Power Corporation, Docket No.50-271, Vermont Yankee Nuclear Power Station, Vernon, Vermont**

*Date of application for amendment:* March 5, 1990 and supplemented on June 7, 1990

*Brief description of amendment:* The amendment revised the Technical Specifications to remove the 3.25 limit on extending surveillance intervals as recommended by NRC Generic Letter 89-14 dated August 21, 1989.

*Date of issuance:* July 2, 1990

*Effective date:* July 2, 1990

*Amendment No.* 124

*Facility Operating License No. DRP-28.* Amendment revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** April 4, 1990 (55 FR 12602). The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated July 2, 1990.

*No significant hazards consideration comments received:* No

*Local Public Document Room location:* Brooks Memorial Library, 224 Main Street, Brattleboro, Vermont 05301.

**Virginia Electric and Power Company, et al., Docket Nos. 50-338 and 50-339, North Anna Power Station, Units No. 1 and No. 2, Louisa County, Virginia**

*Date of application for amendments:* March 26, 1990

*Brief description of amendments:* The amendments add a surveillance requirement to clean and inspect the diesel fuel oil storage tanks. In addition, the appropriate TS action requirement is modified to accommodate the new surveillance requirement.

*Date of issuance:* July 3, 1990

*Effective date:* July 3, 1990

*Amendment Nos.:* 128 and 112

*Facility Operating License Nos. NPF-4 and NPF-7.* Amendments revised the Technical Specifications.

*Date of initial notice in* **Federal Register:** May 2, 1990 (55 FR 18418) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated July 3, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* The Alderman Library, Manuscripts Department, University of Virginia, Charlottesville, Virginia 22901.

**Virginia Electric and Power Company, et al., Docket Nos. 50-338 and 50-339, North Anna Power Station, Units No. 1 and No. 2, Louisa County, Virginia**

*Date of application for amendments:* March 23, 1990

*Brief description of amendments:* The amendments remove the 3.25 limit on extending surveillance intervals specified in the current NA-1&2 TS 4.0.2. In addition, a 24-hour period is allowed to complete a missed surveillance requirement before entering into an applicable action statement as specified in NA-1&2 TS 4.0.3. The specific changes are in conformance with the guidelines specified in Generic Letters 87-09 and 89-14.

*Date of issuance:* July 5, 1990

*Effective date:* July 5, 1990

*Amendment Nos.:* 129 and 113

*Facility Operating License Nos. NPF-4 and NPF-7.* Amendments revised the Technical Specifications.

*Date of initial notice in* Federal Register: May 2, 1990 (55 FR 18416) The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated July 5, 1990.

*No significant hazards consideration comments received:* No.

*Local Public Document Room location:* The Alderman Library, Manuscripts Department, University of Virginia, Charlottesville, Virginia 22901.

## NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE AND FINAL DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION AND OPPORTUNITY FOR HEARING (EXIGENT OR EMERGENCY CIRCUMSTANCES)

During the period since publication of the last biweekly notice, the Commission has issued the following amendments. The Commission has determined for each of these amendments that the application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment.

Because of exigent or emergency circumstances associated with the date the amendment was needed, there was not time for the Commission to publish, for public comment before issuance, its usual 30-day Notice of Consideration of Issuance of Amendment and Proposed No Significant Hazards Consideration Determination and Opportunity for a Hearing. For exigent circumstances, the Commission has either issued a Federal Register notice providing opportunity for public comment or has used local media to provide notice to the public in the area surrounding a licensee's facility of the licensee's application and of the Commission's proposed determination of no significant hazards consideration. The Commission has provided a reasonable opportunity for the public to comment, using its best efforts to make available to the public means of communication for the public to respond quickly, and in the case of telephone comments, the comments have been recorded or transcribed as appropriate and the licensee has been informed of the public comments.

In circumstances where failure to act in a timely way would have resulted, for example, in derating or shutdown of a nuclear power plant or in prevention of either resumption of operation or of increase in power output up to the plant's licensed power level, the Commission may not have had an opportunity to provide for public comment on its no significant hazards determination. In such case, the license amendment has been issued without opportunity for comment. If there has been some time for public comment but less than 30 days, the Commission may provide an opportunity for public comment. If comments have been requested, it is so stated. In either event, the State has been consulted by telephone whenever possible.

Under its regulations, the Commission may issue and make an amendment immediately effective, notwithstanding the pendency before it of a request for a hearing from any person, in advance of the holding and completion of any required hearing, where it has determined that no significant hazards consideration is involved.

The Commission has applied the standards of 10 CFR 50.92 and has made a final determination that the amendment involves no significant hazards consideration. The basis for this determination is contained in the documents related to this action. Accordingly, the amendments have been issued and made effective as indicated.

Unless otherwise indicated, the Commission has determined that these amendments satisfy the criteria for categorical exclusion in accordance with 10 CFR 51.22. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared for these amendments. If the Commission has prepared an environmental assessment under the special circumstances provision in 10 CFR 51.12(b) and has made a determination based on that assessment, it is so indicated.

For further details with respect to the action see (1) the application for amendment, (2) the amendment to Facility Operating License, and (3) the Commission's related letter, Safety Evaluation and/or Environmental Assessment, as indicated. All of these items are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room for the particular facility involved.

A copy of items (2) and (3) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Director, Division of Reactor Projects.

The Commission is also offering an opportunity for a hearing with respect to the issuance of the amendments. By August 24, 1990, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Requests for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the

first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC 20555 and at the Local Public Document Room for the particular facility involved.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendments under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

Since the Commission has made a final determination that the amendment involves no significant hazards consideration, if a hearing is requested, it will not stay the effectiveness of the amendment. Any hearing held would take place while the amendment is in effect.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: Docketing and Services Branch, or may be delivered to the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1-(800) 325-6000 (in Missouri 1-(800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to (*Project Director*): petitioner's name and telephone number; date petition was mailed; plant name; and publication date and page number of this **Federal Register** notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, and to the attorney for the licensee.

Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board, that the petition and/or request should be granted based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

**Commonwealth Edison Company, Docket No. 50-254, Quad Cities Nuclear Power Station, Unit 1, Rock Island County, Illinois**

*Date of application for amendment:* May 19, 1990

*Description of amendment request:* This amendment revised Technical Specification Section 3.7/4.7.A.2 to exclude eight containment pathways from the requirement to perform local leak rate tests until the next refueling outage, scheduled for October 1990.

*Date of issuance:* June 27, 1990

*Effective date:* June 27, 1990

*Amendment No.:* 125

*Facility Operating License No. DPR-29.* Amendment revised the Technical Specifications.

*Public comments requested as to proposed no significant hazards consideration:* No. The Commission's related evaluation of the amendment, finding of emergency circumstances, and final determination of no significant hazards consideration are contained in a Safety Evaluation dated June 27, 1990.

*Attorney for licensee:* Michael I. Miller, Esquire; Sidley and Austin, One First National Plaza, Chicago, Illinois 60690.

*Local Public Document Room location:* Dixon Public Library, 221 Hennepin Avenue, Dixon, Illinois 61021.

*NRC Project Director:* Richard J. Barrett.

**Public Service Electric & Gas Company, Docket No. 50-272, Salem Generating Station, Unit No. 1, Salem County, New Jersey**

*Date of Application for amendment:* April 4, 1990 and supplemented on April 12, 1990, April 20, 1990 and May 7, 1990.

*Brief description of amendments:* The amendment changed the Technical Specifications to change the main steam isolation valve closure time from 5 seconds to 8 seconds.

*Date of Issuance:* July 9, 1990

*Effective Date:* July 9, 1990

*Amendment No.:* 112

*Facility Operating License No. DPR-70:* Amendment revised the Technical Specifications.

*Public comments requested as to proposed no significant hazards consideration:* No. On April 5, 1990, the staff granted a Temporary Waiver of Compliance which was immediately effective and remained in effect until the proposed license amendment was issued.

The Commission's related evaluation of the amendments, consultation with the State of New Jersey and final no significant hazards considerations determination are contained in a Safety Evaluation dated July 9, 1990.

*Attorney for licensee:* Conner and Wetterhahn, 1747 Pennsylvania Avenue, Washington, DC 20006

*Local Public Document Room Location:* Salem Free Public Library, 112 West Broadway, Salem, New Jersey 08079.

*NRC Project Director:* Walter R. Butler

Dated at Rockville, Maryland, this 18th day of July 1990.

For the Nuclear Regulatory Commission

**Steven A. Varga,**

*Director, Division of Reactor Projects-I/II, Office of Nuclear Reactor Regulation*

[Doc. 90-17236 Filed 7-24 -90; 8:45 am]

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**[Docket No. 50-443]**

## Public Service Company of New Hampshire; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. NPF-86 issued to the Public Service Company of New Hampshire (the licensee) for operation of the Seabrook Station

located in Rockingham County, New Hampshire.

**Environmental Assessment**

*Identification of Proposed Action*

The proposed amendment would revise Facility Operating License No. NPF–86 to allow the United Illuminating Company (UI) to enter into an arrangement for the sale and leaseback of a portion of their financial interest in Seabrook to certain equity investors. The License amendment would be subject to the condition that neither the owner trustee nor the equity investors could exercise any control, either directly or indirectly, over (i) Seabrook Station Unit 1, (ii) power and energy produced by Seabrook Station Unit 1, or (iii) the licensee of Seabrook Station Unit 1. The licensee, through its New Hampshire Yankee Division, would continue its present responsibility as the sole licensee authorized to operate and maintain the plant and would remain exclusively responsible for all safety decisions.

The proposed action is in accordance with the licensee's application for amendment dated April 23, 1990, as supplemented by letter dated April 26, 1990.

*The Need for the Proposed Action*

The proposed amendment would allow UI to sell 39% of its 17.5% ownership share in Seabrook for fair market value to a bank or trust company which will act as Owner Trustee under one or more grantor trust agreements.

The proposal, like previous sale/leaseback transactions approved by the Commission, is a mechanism for UI to refinance certain capital costs in return for a commitment to make lease payments over a specified period. The proposed sale/leaseback transaction has been initiated to resolve certain existing financial constraints under which UI operates and thus improve UI's financial condition and quality of credit.

*Environmental Impacts of the Proposed Action*

The Commission has completed its evaluation of the proposed amendment to Facility Operating License No. NPF–86. The proposed amendment to the License to reflect the sale and leaseback transaction would not result in any physical changes to the facility. In addition, all Operating Procedures, Limiting Conditions for Operation, Limiting Safety System Settings and Safety Limits as specified in the Technical Specifications to Facility Operating License No. NPF–86 will remain unchanged.

Public Service Company of New Hampshire, through its New Hampshire Yankee Division, will continue to be responsible for the safe operation of the facility. No changes will be made to the operating organization or the personnel at the facility as a result of the proposed sale and leaseback transaction.

The proposed changes do not increase the probability or consequences of any accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable individual or cumulative occupation radiation exposure.

Accordingly, the Commission concludes that this proposed action would result in no significant radiological environmental impact.

With regard to potential non-radiological impacts, the proposed amendment to the License does not involve systems located within the restricted area as defined in 10 CFR part 20. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with the proposed amendment.

The Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the Federal Register on May 30, 1990 (55 FR 21977). No request for hearing or petition for leave to intervene was filed following this notice.

*Alternative to the Proposed Action*

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternatives with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendment. This would not reduce environmental impacts of plant operation and would adversely effect financial considerations.

*Alternative Use of Resources*

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Seabrook Station.

*Agencies and Persons Consulted*

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

*Finding of No Significant Impact*

The Commission has determined not to prepare an environmental impact statement for the proposed license amendment.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for amendment dated April 23, 1990, as supplemented by letter dated April 26, 1990, which is available for public inspection at the Commission's Public Document room, 2120 L Street, NW., Washington, DC 20555, and at the Exeter Public Library, 47 Front Street, Exeter, New Hampshire 03833.

Dated at Rockville, Maryland, this 19th day of July 1990.

For the Nuclear Regulatory Commission.

**Victor Nerses,**

*Acting Director, Project Directorate I–3, Division of Reactor Projects I/II, Office of Nuclear Reactor Regulation.*

[FR Doc. 90–17366 Filed 7–24–90; 8:45 am]

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**[Docket No. 50–336]**

## Northeast Nuclear Energy Co. et al., Millstone Nuclear Power Station, Unit No. 2, Revocation of Exemption

I

The Northeast Nuclear Energy Company, et al. (the licensee), is the holder of Facility Operating License No. DPR–65 which authorizes operation of the Millstone Nuclear Power Station, Unit No. 2, at a steady state power level not in excess of 2700 megawatts thermal. The facility is a pressurized water reactor located at the licensee's site in the town of Waterford, Connecticut. The license provides, among other things, that it is subject to all rules, regulations and orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

II

On November 19, 1980, the Commission published a revised section 10 CFR 50.48 and a new appendix R to 10 CFR part 50 regarding fire protection features of nuclear power plants (45 FR 76602). The revised § 50.48 and appendix R became effective on February 17, 1981. Section III of appendix R contains 15 subsections, lettered A through O, each of which specifies requirements for a particular aspect of the fire protection features at a nuclear power plant. On April 15, 1986, the Commission granted

exemption to the requirements of two of these 15 subsections, III.G and III.L. Subsection III.G.2 requires that one train of cables and equipment necessary to achieve and maintain safe shutdown be maintained free of fire damage by one of the following means:

a. Separation of cables and equipment and associated non-safety circuits of redundant trains by a fire barrier having a 3-hour rating. Structural steel forming a part of or supporting such fire barriers shall be protected to provide fire resistance equivalent to that required of the barrier;

b. Separation of cables and equipment and associated non-safety circuits of redundant trains by a horizontal distance of more than 20 feet with no intervening combustibles or fire hazards. In addition, fire detectors and an automatic fire suppression system shall be installed in the fire area; or

c. Enclosure of cables and equipment and associated non-safety circuits of one redundant train in a fire barrier having a 1-hour rating. In addition, fire detectors and an automatic fire suppression system shall be installed in the fire area. Subsection III.G.3 and III.L of Appendix R also requires that the alternative shutdown capability be independent fom the specific fire area.

The exemptions specify that a complete area-wide automatic fire suppression would not be required for the Closed Cooling Water Pump Area, the Boric Acid Pumps, Spent Fuel Pool Heat Exchanger Area, the Boric Acid Batch Tank-Chemical Addition Tank Area, the Cable Vault, the Main Control Room, the Intake Building, and the Charging Pump Room. Other specific exemptions to the deviations from the requirements of appendix R were permitted as noted in section IV. All of the Exemptions, except that related to the auxiliary feedwater pumps located in the Auxiliary Feed Pump Pit, are the subject of this Revocation of Exemption.

III.

By letter dated May 29, 1987, as supplemented by letter dated April 22, 1988, the licensee provided an updated evaluation of the plant's compliance with the requirements of 10 CFR 50, appendix R. In that submittal, the licensee elected to review the fire protection afforded the plant on a fire area basis and proposed modifications and analyses that precluded the need for Exemption in seven of the eight areas where Exemption was previously granted.

The acceptability of the revocation of exemption for each of the seven areas is addressed below. Details are contained in the NRC's staff related Safety Evaluation (SE).

The fire areas related to the seven revocations of exemptions are:

1. Closed Cooling Water Pump Area (new area—A–13, old area—A–1B)
2. Boric Acid Pumps-Spent Fuel Pool Heat Exchangers (new area—A–12), old area—A—14)
3. Boric Acid Batch Tank-Chemical Addition Tank Area (new area—A–2, old area—A–24) (Partially revoked, certain areas retained)
4. Cable Vault (new area—A–4, old area—A–10)
5. Main Control Room (new area—A–1, old area—A–42)
6. Intake Building (new area—I–1, old area I–1)
7. Charging Pump Room (new area—A–18, old area—A–9)

IV

*Revocation of Exemption 1—Closed Cooling Water Pump Area*

(Fire Area A–13)

The exemption allowed the licensee to eliminate the need for automatic fire suppression in the Closed Cooling Water Pump Area as would be required by section III.G of appendix R.

The licensee noted in the updated compliance review of May 29, 1987, that 3-hour protection was afforded the cables for the charging pumps. This eliminates the need for an exemption for charging pumps B and B-swing since the 3-hour cable protection complies with the requirements of section III.G.2.a of appendix R.

The licensee also chose not to erect a marinate shield around the Train A Reactor Building Closed Cooling Water (RBCCW) pump and motor as required by the exemption. Therefore, the RBCCW Pump will no longer be available during hot standby and most be repaired or replaced for cold shutdown. The staff has concluded that the RBCCW pump is not needed for hot shutdown based on the licensee's evaluation of acceptable Reactor Coolant Pump (RCP) seal integrity without cooling (see section 2.3.1). Therefore, the fire protection as related to the RBCCW pumps meets the criteria of section III.G.1.b of appendix R. However, the licensee will be required to effect RCP seal cooling in accordance with the resolution of Generic Issue 23 once that issue is resolved.

Based on the foregoing, the exemption is no longer needed from the requirements of appendix R for fire area A–13.

*Revocation of Exemption 2—Boric Acid Pumps—Spent Fuel Pool Heat Exchangers*

(Fire Area A–12)

The exemption of the requirement for an area-wide fire suppression system was granted based on the rerouting of the power cables for Charging Pump A and A (swing) outside the fire area and the enclosure of the vertical run of Charging Pump A and A (swing) cables in a 1-hour barrier together with the installation of a marinate board radiant energy shield around the vertical cables

In lieu of the proposed modifications that supported the exemption, the licensee rerouted the power cables for the B (swing) charging pump outside the fire area. This rerouting meets the appendix R, section III.G.2 separation criteria and makes the B (swing) charging pump available through the post fire shutdown period in the event of a fire in this area. Thus an exemption is no longer needed from the requirements of appendix R for fire area A–12.

*Partial Revocation of Exemption 3—Boric Acid Batch Tank and Chemical Addition Tank Areas*

(Fire Area A–2)

The exemption of the requirement for a total area-wide automatic suppression system was granted based upon rerouting of some Diesel B cables outside the fire area, installing a water curtain in the west end of the fire area to segregate the remaining Train B cables and motor control center from Train A cables the protection of the cables passing through the water curtain with a 1-hour wrap and sprinkler protection.

In lieu of the proposed modifications, the licensee did the following:

(1) Chose to rely on backfeed for AC power and, thus, did not reroute the Train B diesel cables.

(2) Those cables intended to pass through the water curtain were either rerouted or were wrapped in a 3-hour protected fire barrier.

(3) The water curtain was installed at a water spray on MCC B61.

The use of backfeed for AC power eliminated the need for rerouting of Diesel B cables. Therefore, this portion of the exemption in fire area A–2 is no longer needed.

The remaining Train B cables do not require exemption from the requirements of appendix R since some were rerouted in accordance with section III.G.1.a of appendix R or were wrapped with a 3-hour barrier in accordance with the requirements of

section III.G.2.a of appendix R. Therefore, this portion of the exemption in fire area A–2 is no longer needed.

The water curtain established as a water spray on MCC B61 is a deviation from the requirements of section III.G of appendix R. Therefore, this portion of the exemption is retained.

*Revocation of Exemption 4—Cable Vault*

(Fire Area A–4)

The exemption of the requirement for a complete area-wide automatic fire suppression system and for the separation by a 1-hour fire-rated barrier or by more than 20 feet with no intervening combustible material of certain redundant shutdown cables was granted based on the extension of an automatic wet-piped sprinkler system to include diesel power cables Train A and application of passive 1-hour fire-rated barriers between redundant trains of safe shutdown cables at the crossover points.

In lieu of protecting the diesel power cables, the licensee will depend upon backfeed of AC power from Unit 1 to Unit 2 for emergency AC power, will utilize the fire shutdown panel and will protect selected cables by 3-hour barriers. This was found acceptable since it complies with the provisions of appendix R, section III.G.2. Thus, an exemption is no longer needed from the requirements of appendix R for Fire Area A–4.

*Revocation of Exemption 5—Main Control Room*

(Fire Area A–1)

The exemption from the requirement of a complete area-wide fixed fire suppression system, the adequate physical separation between redundant shutdown divisions and a shutdown capability independent of the main control room was based on existing fire protection capability and implementation of modifications that would provide for instrumentation signals to a new remote Fire Shutdown Panel (FSP), disconnect devices to assure closure of certain valves during a control room fire, the capability to align Unit 1 emergency AC power to the Unit 2 emergency buses, manual/air operated valves in the auxiliary spray flow paths to control Reactor Coolant System (RCS) level and pressure control for cold shutdown, protection against hot shorts in the pressurizer and the reactor head vent control circuits in the event of control room fires, a remote FSB in Fire Zone T3 and procedures to assure safe shutdown in the event of fires in and outside of the control room.

In the licensee's May 29, 1987, Updated Fire Hazards Analysis, the licensee revised the previous approach to safe shutdown which was based upon the assumption of loss of some panels in the control room to a loss of all panels. Under this assumption, the licensee will rely on use of the FSP installed in Fire Area T–3 for safe shutdown after a control room fire in accordance with sections III.G.3 and III.L of appendix R. The licensee installed a bottle-up panel outside of the control room to assure closure of valves in the RCS and main steam system which could be used to isolate the RCS and the SG coolant inventories. The FSP will utilize the AC power backfeed from Unit 1 to satisfy the criteria of appendix R, sections III.G.3 and III.L. Thus, an exemption is no longer needed from the requirements of appendix R for Fire Area A–1.

*Revocation of Exemption 6—Intake Building*

(Fire Area I–1)

The exemption from the requirement of certain shutdown systems not separated by a 3-hour fire-rated barrier and an area-wide automatic fire suppression system was based upon the modification to provide 1-hour fire-rated barriers for all cabling/conduit associated with service water pump train "A", the modification to provide diking/curbing around Service Water Pump "A" and the installation of an automatic water curtain spray system around Service Water Pump "A."

The licensee reported in the updated Fire Hazards Analysis of May 29, 1987, that none of above modifications were implemented. Rather, the licensee will rely on backfeed of AC power from Unit 1 for provision of power to Unit 2 in lieu of providing a Unit 2 SW pump to cool a Unit 2 Emergency diesel generator. Also, the licensee noted that if a fire did effect the SW pump and cabling for a SW pump, the pump and cabling would be replaced for bringing the plant to cold shutdown. This was found to be acceptable since such a repair was not postulated as being necessary during the hot standby condition. Therefore, an exemption is no longer needed from the requirements of appendix R for fire area I–1.

*Revocation of Exemption 7—Charging Pump Room*

(Fire Area A–18)

The exemption from the requirement for an area-wide automatic fire suppression system and separation of the three charging pumps by a complete 1-hour fire-rated barrier or by a distance of more than 20 feet without intervening combustibles was based on a low fire load in the area, on the modifications providing a 1-hour fire-rated enclosure for A and B train charging pump cable trains and on the installation of a curb/dike in front of each charging pump cubicle.

The licensee reported in the updated Fire Hazards Analysis dated May 29, 1987, that a 3-hour fire-rated barrier in the form of a wrap had been provided for both charging pump cable trains and that the curbs had been installed. The 3-hour fire-rated barrier conforms to the requirements of sections III.G.2 of appendix R this making two charging pumps (A and B) available for use throughout the post-fire period in this fire area. Therefore, an exemption is no longer needed from the requirements of appendix R for fire area A–18.

Accordingly, the Commission has determined that the specific exemptions from 10 CFR 50.48 granted on April 15, 1986, for the Closed Cooling Water Pump Area (Fire Area—A–13) the Boric Acid Pumps—Spent Fuel Pool Heat Exchangers Area (Fire Area—A–12), the Cable Vault Area (Fire Area—A–4), the Main Control Room Area (Fire Area—A–1), the Intake Building Area (Fire Area—I–1) and the Charging Pump Room Area (Fire Area—A–18) are hereby revoked. Also, the exemption related to Boric Acid Batch Tank—Chemical Addition Tank Area (Fire Area—A–12), is hereby partially revoked and certain areas as discussed are retained. This revocation provides protection of the public adequate health and safety since it results in compliance by the Licensee with the Commission's regulations.

This revocation of exemption is effective upon issuance.

Dated at Rockville, Maryland this 19th day of July, 1990.

For the Nuclear Regulatory Commission.

**Steven A. Varga,**

*Director, Division of Reactor Projects—I/II, Office of Nuclear Reactor Regulation.*

[FR Doc. 90–17368 Filed 7–24–90; 8:45 am]

BILLING CODE 7590–01–M

## Public Workshop on the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Notice of IPEEE workshop and availability of a draft supplement to generic letter 88–20 and a draft NUREG–1407 for public comment.

**SUMMARY:** On November 23, 1988 the NRC issued Generic Letter 88–20, individual plant examination for severe accident vulnerabilities. The generic letter requested all licensees holding operating licenses for nuclear power reactor facilities to perform an individual plant examination for severe accident vulnerabilities due to internal events, including internal flooding. The request for an individual plant examination of external events (IPEEE) for severe accident vulnerabilities was postponed to permit the staff to (1) identify the external hazards that need a systematic examination, (2) identify examination methods and develop guidance and procedures, and (3) coordinate the IPEEE with other ongoing NRC programs that deal with various aspects of external event evaluations to ensure that there is no duplication of staff and industry efforts. The staff has completed this work and plans to request in a supplement to Generic Letter 88–20 that each licensee perform an IPEEE to identify plant-specific vulnerabilities, if any, to severe accidents and report the results to the NRC. A draft of this supplement and a supporting NUREG document have been prepared and are available for review and comment. A copy has been placed in the NRC Public Document room, Gelman Building, 2120 L Street NW., Washington, DC. A free single copy may be obtained by writing to the U.S. Nuclear Regulatory Commission, Attn: Distribution section, 7103–MNBB, Washington, DC 20555. The NRC plans to conduct a workshop to discuss the IPEEE objectives and solicit questions and points for clarification on the draft Supplement and on the draft guidance document, NUREG–1407,

"Procedural and Submittal Guidance for Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities".

**DATES:** September 11–13, 1990.

**PLACE:** The Pittsburgh Hilton, 600 Commonwealth Place, Gateway Center, Pittsburgh, PA 15222.

**FOR FURTHER INFORMATION CONTACT:** John T. Chen, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555. Telephone (301) 492–3919.

**FOR HOTEL ROOM RESERVATIONS:** Request the IPEEE Workshop Conference room rate at the Pittsburgh Hilton, Telephone (412) 391–4600.

**SUPPLEMENTARY INFORMATION:** The following items will be discussed during the workshop: the draft Supplement 4 to Generic Letter 88–20 and the draft of NUREG–1407, "Procedural and Submittal Guidance for Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities". A detailed agenda will be issued prior to the workshop.

Members of licensees' staff who will be involved in IPEEE performance are encouraged to attend, along with other interested members of the public. Those persons who wish to attend the workshop should notify the contact listed above. In addition, those persons who wish to make a concise presentation at the workshop should indicate their desire to do so to the contact listed above so that they can be added to the agenda. Early notification is recommended since requests will be processed as they are received. Written comments will also be accepted up to (75 days following the issuance of this notice). Commenters may submit, in addition to the original paper copy, a copy of the written comments in an electronic format on IBM PC–DOS compatible 3.5 or 5.25 inch double sided, double density (DS/DD) diskettes. Data files should be provided in ASCII code or, if formatted text is required, data files should be provided in IBM Revisable-Form Text Document Content Architecture (RFT/DCA) format.

Dated in Rockville, Maryland this 19th day of July, 1990.

For the Nuclear Regulatory Commission.

**Eric S. Beckjord,**

*Director, Office of Nuclear Regulatory Research.*

[FR Doc. 90–17367 Filed 7–24–90; 8:45 am]

BILLING CODE 7590–01–M

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## Advisory Committee on Reactor Safeguards (ACRS) and Advisory Committee on Nuclear Waste (ACNW); Proposed Meetings

In order to provide advance information regarding proposed public meetings of the ACRS Subcommittees and meetings on the ACRS full Committee, and of the ACNW, the following preliminary schedule is published to reflect the current situation, taking into account additional meetings which have been scheduled and meetings which have been postponed or cancelled since the last list of proposed meetings published June 20, 1990 (55 FR 25186). Those meetings which are definitely scheduled have had, or will have, an individual notice published in the **Federal Register** approximately 15 days (or more) prior to the meeting. It is expected that sessions of ACRS full Committee and ACNW meetings designated by an asterisk (*) will be open in whole or in part to the public. ACRS full Committee and ACNW meetings begin at 8:30 a.m., and ACRS Subcommittee meetings usually begin at 8:30 a.m. The time when items listed on the agenda will be discussed during ACRS full Committee and ACNW meetings and when ACRS Subcommittees meetings will start will be published prior to each meeting. Information as to whether a meeting has been firmly scheduled, cancelled, or rescheduled, or whether changes have been made in the agenda for the August 1990 ACRS and ACNW full Committee meetings can be obtained by a prepaid telephone call to the Office of the Executive Director of the Committees (telephone: 301/492–4600 (recording) or 301/492–7288, Attn: Barbara Jo White) between 7:30 a.m. and 4:15 p.m., Eastern Time.

### ACRS Committee Meetings

*Human Factors,* July 31, 1990, Bethesda, MD. The Subcommittee will be briefed and discuss the progress of the work on procedure violations (Chernobyl Spin-off), and organizational factors.

*Occupational and Environmental Protection Systems,* August 8, 1990—Postponed.

*AC/DC Power System Reliability,* August 8, 1990, Bethesda, MD. The Subcommittee will review the proposed resolution of Generic Issue B–56, "Diesel Generator Reliability."

*Improved Light Water Reactor,* August 8, 1990, Bethesda, MD. The Subcommittee will review the NRC and industry proposals for the completeness of designs issue.

*Joint Decay Heat Removal Systems and Thermal Hydraulic Phenomena,* August 28 and 29, 1990, Idaho Falls, ID. The Subcommittee will: (1) discuss the details of the modifications made to the RELAP–5 MOD–2 code as specified in the MOD–3 version (August 28), and (2) explore the use of feed and bleed for decay heat removal in PWRs (August 29).

*TVA Plant Licensing and Restart,* September 25 and 26, 1990, Huntsville, AL. The Subcommittee will review the planned restart of Browns Ferry Unit 2.

*Joint Advanced Pressurized Water Reactors and Advanced Boiling Water Reactors,* Date to be determined (August) Bethesda, MD. The Subcommittee will discuss the licensing review basis documents for CE System 80+ and GE ABWR designs.

*Joint Severe Accidents and Probabilistic Risk Assessment,* Date to be determined (August/September), Bethesda, MD. The Subcommittee will continue their review of NUREG–1150,

"Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants."

*Joint Containment Systems and Structural Engineering,* Date to be determined (August/September), Bethesda, MD. The Subcommittee will develop containment design criteria for future plants.

*Decay Heat Removal Systems,* Date to be determined (September), Bethesda, MD. The Subcommittee will continue its review of the proposed resolution of Generic Issue 23, "RCP Seal Failures."

*Plant Operations,* Date to be determined (September/October), Bethesda, MD. The Subcommittee will begin review of the NRC staff's Action Plan to evaluate the risk from nuclear power plant shutdown operations.

*Materials and Metallurgy,* Date to be determined, Bethesda, MD. The Subcommittee will review the proposed resolution of Generic Issue 29, "Bolting Degradation or Failure in Nuclear Power Plants."

*Quality and Quality Assurance,* Date to be determined, Bethesda, MD. The Subcommittee will discuss the performance-based concept of quality, what it means, its implementation, and preliminary results.

*Joint Computers in Nuclear Power Plant Operations and Instrumentation and Control Systems,* Date to be determined, Bethesda, MD. The Subcommittee will discuss the use of computers and solid state control logic in nuclear power plant operations.

*Auxiliary and Secondary Systems,* Date to be determined, Bethesda, MD. The Subcommittee will discuss: (1) Criteria being used by utilities to design Chilled Water Systems, (2) regulatory requirements for Chilled Water Systems design, and (3) criteria being used by the NRC staff to review the Chilled Water Systems design. In addition, the Subcommittee may discuss at this meeting matters concerning fire protection and mitigation in nuclear power plants.

*Joint Regulatory Activities and Containment Systems,* Date to be determined, Bethesda, MD. The Subcommittee will review the proposed final revision to appendix J to 10 CFR part 50, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors," and an associated Regulatory Guide.

*Occupational and Environmental Protection Systems,* Date to be determined, Bethesda, MD. The Subcommittee will review the Advance Notice of Proposed Rulemaking on hot particles.

**ACRS Full Committee Meetings**

*364th ACRS Meeting,* August 9–11, 1990, Bethesda, MD. Items are tentatively scheduled.

*A. *EPRI Requirements for Advanced LWRs (Open)*—Discuss proposed ACRS comments/recommendations regarding the NRC staff SER on Chapters 1–5 of the EPRI Requirements Document for ALWRs.

*B. *Requirements for Essentially Compete Design (Open)*—Review and report on the requirements for an essentially complete design per 10 CFR part 52 Standard Design Certifications. Representatives of the NRC staff and EPRI will meet with the Committee as appropriate.

*C. *Reactor Operating Experience (Open/Closed)*—Members of the NRC staff will brief the Committee on operating events and transients at nuclear power plants including the feedwater line failure at the Loviisa Nuclear Power Plant, the details of the technical violations associated with the $75,000 fine imposed by the NRC staff on the Farley plant, and proposed changes in the frequency of steam line stop valve testing at Westinghouse nuclear power plants.

*D. *Proposed Resolution of Generic Issue B–56, Diesel Generator Reliability (Open)*—Review and comment on proposed resolution of this generic issue.

*E. *Alvin W. Vogtle Nuclear Plant (Open)*—Briefing by members of the IIT on the investigation of the recent loss of emergency power and decay heat removal at Unit 1 during the shutdown mode of operation.

*F. *Severe Accident Risk Report (NUREG–1150) (Open)*—The members will be briefed and will discuss the results of the NRC peer review with the chairman of the Peer Review Group.

*G. *Organizational Factors Research Progress Report (Open)*—Briefing and discussion on organizational factors research. Members of RES and consultants will participate.

*H. *Solenoid Valve Case Study (Open)*—Briefing and discussion of the NRC AEOD report on the performance of solenoid valves in nuclear plants. Members of the NRC Office for Analysis and Evaluation of Operational Data will participate.

*I. *Future ACRS Activities (Open)*—Members will discuss anticipated ACRS subcommittee activities and topics proposed for consideration by the full Committee. The scope of the ACRS annual report to Congress on the NRC Safety Research Program will also be discussed.

*J. *Conduct of ACRS Activities (Open/Closed)*—Procedures for conduct of ACRS subgroup meetings will be discussed.

*K. *ACRS Subcommittee Activities (Open)*—Members will hear and discuss the status of assigned subcommittee activities regarding safety-related matters.

365th Meeting, September 6–8, 1990—Agenda to be announced.

366th Meeting, October 4–6, 1990—Agenda to be announced.

**ACNW Full Committee Meetings**

*22nd ACNW Meeting,* July 30–31, 1990, Bethesda, Md. Items are tentatively scheduled.

*A. Review the staff's safety evaluation report and decommissioning plans for the Pathfinder Atomic Power Plant (Open).

*B. Briefed on the first update of the regulatory strategy and schedules for the High-Level Waste Repository Program (Open).

*C. Briefed on the current NRC staff approach for dealing with uncertainties in implementing the EPA High-Level Waste Standards (Open).

*D. Review a branch technical position which deals with the cementation of low-level radioactive waste (waste form) (tentative) (Open).

*E. Briefed on the Commission's Below Regulatory Concern policy statement (Open).

*F. Briefed on waste management activities in the U.S.S.R. (Open).—

*G. Discuss and prepare proposed reports to the NRC as appropriate (Open).

*H. The Committee will discuss anticipated and proposed Committee activities, future meeting agenda, and organizational matters, as appropriate (Open/Closed).

*23rd ACNW Meeting,* August 29–31, 1990, MD. Items are tentatively scheduled.

*A. Review a branch technical position which deals with the cementation of low-level radioactive waste (waste form) (Open).

*B. NRC staff's overall approach to seismic hazards and tectonics at the proposed HLW repository (Open).

*C. The Committee will discuss anticipated and proposed Committee activities, future meeting agenda, and organizational matters, as appropriate (Open/Closed).

24th ACNW Meeting, September 19–20, 1990—Agenda to be announced.

25th ACNW Meeting, October 24–26 1990—Agenda to be announced.

Dated: July 20, 1990.

**John C. Hoyle,**

*Advisory Committee Management Officer.*

[FR Doc. 90-17365 Filed 7-24-90; 8:45 am]

BILLING CODE 7590-01-M

## SECURITIES AND EXCHANGE COMMISSION

### Forms Under Review by Office of Management and Budget

*Agency Clearance Officer:* Kenneth A. Fogash (202) 272-2141.

*Upon Written Request, Copy Available From:* Securities and Exchange Commission, Office of Consumer Affairs and Information Services, 450 Fifth Street NW., Washington, DC 20549.

*Revisions:*

Rule 2a-7 [17 CFR 270.2a-7] File No. 270-258

Rule 34b-1 [17 CFR 270.34b-1] File No. 270-305

Rule 482 [17 CFR 230.482] File No. 270-68

Form N-1A [17 CFR 274.11A] File No. 270-21

Form N-3 [17 CFR 274.11b] File No. 270-281

Form N-4 [17 CFR 274.11c] File No. 270-282

Notice is hereby given that pursuant to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission has submitted for clearance of OMB amendments to rules 2a-7 and 34b-1, and Forms N-1A, N-3 and N-4 under the Investment Company Act of 1940 [15 U.S.C. 80-*et seq.*] ("1940 Act"), and rule 482 under the Securities Act of 1933 [15 U.S.C. 77a-1 *et seq.*]

Rule 2a-7 exempts money market funds from the portfolio valuation provisions of the 1940 Act and permits them to value portfolio instruments by use of the amortized cost method or to compute current price per share by use of the penny-rounding method of pricing. The rule affects about 620 investment companies, each of which spends about 125 hours to comply. The proposed revision would increase the number of funds affected to 647 and would increase the amount of time needed to comply to 126 hours.

With respect to money market funds, rule 34b-1 requires that any sales literature with a yield quotation also contain a standardized yield and certain disclosure. The rule imposes an estimated annual reporting burden of 12 hours on each of the approximately 647 money market funds. The revisions to the rule would require a negligible amount of additional time to comply.

Rule 482 permits money market funds to quote performance information in sales literature and advertisements. The proposed revisions to the rule would affect approximately 647 money market funds and would require a negligible amount of time to comply.

Form N-1A is used by open-end investment companies to register under both the 1940 Act and 1933 Act. The proposed revisions to the rule would affect approximately 647 money market funds with an estimated compliance time of 1,055 hours per registrant. The proposed amendments would increase the time needed to comply with the Form's requirements by one third of an hour.

Form N-3 is used by insurance separate accounts organized as open-end management investment companies to register under both the 1940 Act and 1933 Act. There are approximately 53 registrants using Form N-3 (only some of which are money market funds) with an estimated compliance time of 514 and ⅔ hours per registrant. The proposed amendments would increase the time needed to comply with the Form's requirements by one third of an hour.

Form N-4 is used by insurance separate accounts organized as unit investment trusts to register under both the 1940 Act and 1933 Act. There are an estimated 183 registrants using Form N-4, (only some of which invest in money market funds) with an estimated compliance time of 138.65 hours per registrant. The proposed amendments, if adopted, would increase the time needed to comply with the form's requirements by one third of an hour.

The estimated average burden hours are made solely for purposes of the Paperwork Reduction Act, and are not derived from a comprehensive or even a representative survey or study of the costs of SEC rules and forms. Direct any comments concerning the accuracy of the estimated average burden hours for compliance to Kenneth A. Fogash, Deputy Executive Director, 450 Fifth Street NW., Washington, DC 20549, and to Gary Waxman at the address listed below.

Submit general comments to OMB Desk Officer: Gary Waxman (202) 395-7430, Office of Management and Budget, Paperwork Reduction Project 3235-0009, Office of Information and Regulatory Affairs, Room 3208, NEOB, Washington, DC 20503.

Dated: July 18, 1990.

**Margaret A. McFarland,**

*Deputy Secretary.*

[FR Doc. 90-17361 Filed 7-24-90; 8:45 am]

BILLING CODE 8010-01-M

[Rel. No. IC-1705; 811-4157]

### IMG Bond Accumulation Fund, Inc.; Deregistration

July 19, 1990.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of application for deregistration under the Investment Company Act of 1940 ("1940 Act").

**APPLICANT:** IMG Bond Accumulation Fund, Inc.

**RELEVANT 1940 ACT SECTION:** Section 8(f) and Rule 8f-1 thereunder.

**SUMMARY OF APPLICATION:** Applicant seeks an order declaring that it has ceased to be an investment company.

**FILING DATES:** The application was filed on Form N8-F on May 4, 1990.

**HEARING OR NOTIFICATION OF HEARING:** An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving Applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on August 20, 1990, and should be accompanied by proof of service on the Applicant, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 Fifth Street, NW., Washington, DC 20549; on behalf of Applicants, Liberty Building, Suite 720, 418 Sixth Avenue, Des Moines, Iowa 50309.

**FOR FURTHER INFORMATION CONTACT:** Marc Duffy, Staff Attorney, (202) 272-2511 or Max Berueffy, Branch Chief, (202) 272-3016.

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch or by contacting the SEC's commercial copier at (800) 231-3282 (in Maryland (301) 258-4300).

#### Applicant's Representations

1. Applicant is a diversified, open-end management company that incorporated under Iowa law on November 8, 1984. On November 8, 1984, Applicant registered an indefinite number of shares under the Securities Act of 1933 by filing registration statement on Form N-1A. On this same date, Applicant

filed a Notice of Registration pursuant to section 8(a) of the 1940 Act. Applicant's registration statement became effective and its initial public offering commenced on February 12, 1985.

2. At a meeting held on January 25, 1990, the Board of Directors approved a resolution calling for the sale of substantially all of Applicant's assets to Princor Bond Fund, Inc. ("Princor") pursuant to an Agreement and Plan of Acquisition (the "Plan") and directing that the Plan be submitted to the shareholders for consideration. Proxy materials for the shareholder meeting were distributed to shareholders on or about March 19, 1990. At a meeting of shareholders held on April 18, 1990, the Plan was approved by a majority of the outstanding shares.

3. As of April 30, 1990, Applicant had 771,336.093 shares outstanding having an aggregate net asset value of $8,183,628.33 and a net asset value per share of $10.610. On May 1, 1990, Applicant transferred its assets to Princor. In exchange, Princor assumed Applicant's liabilities and Applicant received shares of Princor having an aggregate net asset value equal to the aggregate net asset value of the shares of Applicant. These shares were distributed to Applicant's shareholders on May 1, 1990.

4. Expenses related to the Plan for proxy solicitation, general administration expenses and legal expenses totaled approximately $13,000. All expenses were borne by Principal Management, Inc.

5. As of the time of filing of this application, Applicant had no shareholders, assets, or liabilities. Applicant is not a party to any litigation or administrative proceeding. Applicant is not presently engaged in, nor does it propose to engage in, any business activities other than those necessary for the winding up of its affairs. Applicant intends to file for dissolution under the laws of the State of Iowa.

For the Commission, by the Division of Investment Management, under delegated authority.

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90-17354 Filed 7-24-90; 8:45 am]

BILLING CODE 8010-01-M

**[Release No. 34-28227; File No. SR-NASD-90-20]**

## Self-Regulatory Organizations; Filing and Immediate Effectiveness of Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to the Collection of Fines and Costs in Disciplinary Proceedings

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"), 15 U.S.C. 78s(b)(1), notice is hereby given that on April 10, 1990 the National Association of Securities Dealers, Inc. ("NASD" or "Association") filed, and amended on June 20, 1990, with the Securities and Exchange Commission ("SEC" or "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the NASD. The NASD has designated this proposal as one constituting a stated policy with respect to the enforcement of an existing rule of the NASD under section 19(b)(3)(A)(i) of the Act, which renders the rule effective upon the Commission's receipt of this filing. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

### I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The proposed rule change sets forth the Association's stated policy relating to the collection of fines and costs in Disciplinary Proceedings. The NASD Board of Governors has notified the Association's membership (via NASD Notice to Members 90-21) that, in addition to the procedures relating to payment of monetary sanctions, suspensions or revocation of membership or registration for failure to make such payment set forth in the NASD's Rules of Fair Practice[1] the Association intends to pursue other available means[2] for the collection of fines and costs imposed as a consequence of final action by its District Committees, the Market Surveillance Committee, and Board of Governors in disciplinary decisions issued on or after July 1, 1990. However, in instances where a respondent has entered into a settlement pursuant to an Offer of Settlement or Letters of Acceptance, Waiver and Consent ("AWC"), in which the remedial sanctions include both a bar and a fine, the NASD may suspend efforts to collect the fine until such time as the respondent attempts to re-enter the securities industry. Additionally, the NASD will not pursue the collection of fines and costs assessed in cases concluded prior to July 1, 1990, by means of Offers of Settlement, AWCs, or resulting from decisions of District Committees, the Market Surveillance Committee, or the Board of Governors issued prior to July 1, 1990, in light of the fact that the respondents might have entered into settlements or elected not to pursue appellate remedies believing that direct efforts would not be made to collect fines in their cases.

### II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the NASD included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in item IV below. The NASD has prepared summaries, set forth in sections (A), (B), and (C) below, of the most significant aspects of such statements.

*A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change*

The purpose of the stated policy is to provide notification that the NASD intends to take whatever steps it deems appropriate to collect fines and costs which are assessed in NASD disciplinary proceedings.[3] The NASD has determined to institute a consistent policy with respect to the direct collection of fines and costs. In the past, the NASD has had no clear policy regarding direct collection efforts. The NASD issued Notice to Members 90-21 in April 1990, which advised members of the new policy and outlined how it

[1] NASD Manual, Rules of Fair Practice, Article V, section 2, ¶ 2302.

[2] The NASD has indicated that it will continue its own internal efforts for the collection of fines, and if such efforts fail, a matter may be referred to external collection agencies and in appropriate situations, the NASD will seek to reduce such fines to a judgment. The Association has not indicated which situations would be appropriate for further action. *See* letter to Katherine England, Division of Market Regulation, SEC, from T. Grant Callery, Vice President and Deputy General Counsel, NASD dated June 15, 1990, filed as Amendment No. 1 to SR-NASD-90-20.

[3] The NASD has also proposed a rule change that would require a person to re-qualify for membership by examination prior to again becoming registered with the Association when that person's registration has been revoked for failure to pay any fine, monetary sanction or costs assessed as a result of a disciplinary action by the NASD. *See* SR-NASD-89-53, Securities Exchange Act Release No. 28226 (July 18, 1990).

would be implemented. It was also determined to institute this policy for decisions issued on or after July 1, 1990, to take into consideration that respondents might have entered into settlements or elected not to pursue appellate remedies believing that direct efforts would not be made to collect fines in their cases.

The Association believes that the policy is consistent with section 15A(b)(6) of the Act, which provides, *inter alia*, that the rules of a national securities association shall be designed to promote just and equitable principles of trade and to protect investors and the public interest; and with section 15A(b)(7) which authorizes that imposition of fines by a registered securities association in carrying out its obligation to appropriately discipline its members. The NASD believes that the policy will ensure that sanctions imposed for the protection of investors are enforced in a meaningful manner.

*B. Self-Regulatory Organization's Statement on Burden on Competition*

The NASD does not believe that the proposed rule change imposes any burden on competition not necessary or appropriate in furtherance of the purposes of the Act, as amended.

*C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others*

Comments were neither solicited nor received.

**III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

The foregoing rule change has become effective pursuant to section 19(b)(3)(A)(i) of the Act and subparagraph (e) of Rule 19b–4 thereunder in that it constitutes a stated policy or practice with respect to the NASD'S authority to impose sanctions in its disciplinary proceedings.

At any time within 60 days of the filing of a rule change pursuant to section 19(b)(3)(A) of the Act, the Commission may summarily abrogate the rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act.

**IV. Solicitation of Comments**

Interested persons are invited to submit written data, views, and arguments concerning the foregoing. Pesons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street NW., Washington, DC 20549. Copies of the submisssion, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of the filing will also be available for insection and copying at the principal office of the NASD. All submissions should refer to the file number in the caption above and should be submitted by August 15, 1990.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority, 17 CFR 200.30–3(a)(12).

Dated: July 18, 1990.

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90–17348 Filed 7–24–90; 8:45 am]

BILLING CODE 8010–01–M

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**[Release No. 34–28226; File No. SR–NASD–89–53]**

## Self-Regulatory Organizations; Proposed Rule Change by National Association of Securities Dealers, Inc. Relating to Requalification by Examination for Persons Whose Registration Has Been Revoked Under NASD Rules of Fair Practice

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"), 15 U.S.C. 78s(b)(1), notice is hereby given that on November 22,. 1989 the National Association of Securities Dealers, Inc. ("NASD") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the NASD. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

**I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change**

The NASD has proposed amendments to Schedule C to the By-Laws that would require a person whose registration(s) has been revoked for failure to pay any fine, monetary sanction or costs assessed as a result of a disciplinary action by the NASD to re-qualify by examination prior to again becoming registered.

**II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change**

In its filing with the Commission, the NASD included statements concerning the purpose of, and basis for, the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The NASD has prepared summaries, set forth in sections (A), (B), and (C) below, of the most significant aspects of such statements.

*A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change*

The NASD proposes to amend part II, section (1)(c) and part III, section (1)(c) of Schedule C to the By-Laws to require any person whose registration(s) has been revoked, pursuant to Article V, section 2 of the Rules of Fair Practice, to re-qualify by examination prior to again becoming registered. Article V, section 2 of the Rules of Practice authorizes the NASD to revoke the registration of a person associated with a member if such person fails promptly to pay any fine or monetary sanction or any costs assessed pursuant to Article V, section 1 and Article V, section 3, respectively, of the Rules of Fair Practice. The NASD's normal policy in attempting to collect fines is to send several requests for payment prior to revoking a person's registration.[1] The NASD believes that the requirement that a person requalify by examination if his registration(s) is revoked will serve to encourage the prompt payment of fines and costs levied in NASD disciplinary proceedings. Under the present provisions of Schedule C, a person whose registration has been terminated for whatever reason has two years from the date of such termination to again become registered with the NASD without taking the appropriate qualifying examinations.

The NASD believes the proposed rule change is consistent with section 15A(b)(6) of the Act, as amended. In pertinent part, section 15A(b)(6) mandates that the rules of a national securities association be designed to prevent fraudulent and manipulative acts and practices, to promote just and

[1] The NASD has also filed a rule change setting forth its policy relating to the collection of fines and costs in Disciplinary Proceedings. *See* SR–NASD–90–20, Securities Exchange Act Release No. 28227 (July 18, 1990)

equitable principles of trade, and to protect investors and the public interest. The NASD believes the proposed rule change is fully consistent with the NASD's longstanding policy to promptly collect fines and costs levied in NASD disciplinary proceedings.

*B. Self-Regulatory Organization's Statement on Burden on Competition*

The NASD does not believe that the proposed rule change imposes any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

*C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others*

Comments were neither solicited nor received.

**III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

Within 35 days of the date of publication of this notice in the Federal Register or within such longer period (i) As the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

A. By order approve such proposed rule change, or

B. Institute proceedings to determine whether the proposed rule change should be disapproved.

**IV. Solicitation of Comments**

Interested persons are invited to submit written data, views, and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street NW., Washington, DC 20549. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspections and copying in the Commission's Public Reference Room. Copies of such filing will also be available for inspection and copying at the principal office of the NASD. All submissions should refer to the file number in the caption above and should be submitted by August 21, 1990.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority, 17 CFR 200.30-3(a)(12).

Dated: July 18, 1990.

**Margaret H. McFarland,**

*Deputy Secretary.*

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**[Rel. No. 34-28223; File No. SR-NASD-90-33]**

## Self-Regulatory Organizations; Proposed Rule Change by the National Association of Securities Dealers, Inc. Relating to the NASDAQ International Service

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"), 15 U.S.C. 78s(b)(1), notice is hereby given that on June 27, 1990, the National Association of Securities Dealers, Inc. ("NASD" or "Association"), filed with the Securities and Exchange Commission ("Commission") or "SEC") the proposed rule change as described in Items I, II, and II below, which Items have been prepared by the NASD. The Commission is publishing this notice to solicit comment on the proposed rule change from interested persons.

**I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change**

The NASD has filed a proposed rule change to initiate a pilot operation of the NASDAQ International Service (hereinafter referred to as "NASDAQ International" or the "Service") for a term of two years. NASDAQ International constitutes an extension of the NASD's electronic inter-dealer market to Europe (initially to the United Kingdom ("U.K.")) through a communications node located in London. The Service will support an early trading session ("European Session")—running from 3:30 to 9 e.t. on each U.S. business day—that coincides with the business hours of London financial markets. The domestic NASDAQ market will continue to be open from 9:30 a.m. to 4 p.m. e.t. (hereinafter referred to as the "Domestic Session"), and the NASD rules governing that session would not be altered by this filing. The universe of securities qualified for quotation in the Service will consist of (1) All equity securities designated as NASDAQ/National Market System Securities (collectively, "NASDAQ/NMS securities"); (2) all non-Canadian, foreign equities and American Depositary Receipts quoted in NASDAQ but not designated NASDAQ/NMS securities (collectively, "non-NMS securities"); and (3) all equity securities listed and registered on a national securities exchange.

NASDAQ International is primarily designed to accommodate trading in qualified equity securities by domestic and foreign institutional investors. This will be accomplished by providing market maker participants in the European Session with the automation capabilities currently provided to NASD members that function as NASDAQ or Consolidated Quotation Service ("CQS") market makers during the Domestic Session. Market maker participation in the Service will be voluntary and be limited to NASD member firms. To participate, a member firm must register with the NASD as a market maker in one or more qualified securities. NASD members will be able to function as market makers in qualified NASDAQ and/or listed securities in essentially the same manner as they do now during the Domestic Session. More specifically, such members will be obliged to maintain firm, two-sided quotes in each of their registered securities during the European Session. A specialized body of rules will govern member firms' participation in the Service. The text of these rules, designated as the NASD's "International Rules," are set forth below.[1]

*NASDAQ International Service Rules*

Applicability

*Sec. 1.* These rules shall be known as the "International Rules" and govern operation of the NASDAQ INTERNATIONAL SERVICE ("NASDAQ INTERNATIONAL" or "SERVICE"), as well as the obligations, access to and use of the SERVICE by members of the National Association of Securities Dealers, Inc. ("NASD") and their associated persons. Unless otherwise indicated, the requirements of the International Rules are in addition to those contained in the NASD's Rules of Fair Practice, the By-Laws, and Schedules to the By-Laws.

Sections 6, 8, 9 and 12 of the International Rules establish requirements that apply exclusively to members' participation in the SERVICE during the European Session. As such, these provisions of the International Rules supersede Parts VI, VII, XI, and XII of Schedule D to the NASD By-Laws and sections 1, 2, and 5 of Schedule G to the NASD By-Laws.

[1] The International Rules will be published in a separate section of the NASD Manual commencing at ¶2700.

Definitions

*Sec. 2.* Unless the context otherwise requires, or unless defined in International Rules, the terms used herein shall retain their present meanings as defined in the By-Laws, Schedules to the NASD By-Laws or Rules of Fair Practice, respectively.

a. The terms "NASDAQ INTERNATIONAL" and "SERVICE" refer to an extension of the basic automation capabilities that support NASD members' market making in NASDAQ, NASDAQ/National Market System ("NASDANQ/NMS"), and exchange-listed securities to the business hours fixed by section 3 of the International Rules.

b. "Qualified security" means any security that satisfies the requirements contained in section 4 of the International Rules.

c. "Non-NMS security" means every qualified security in the subset defined by section 4(b) of the International Rules.

d. "European Session" refers to the market session supported by the SERVICE during the hours specified in section 3 of the International Rules.

e. "Domestic Session" refers to the market session operated by the NASD between the hours of 9:30 a.m. and 4 p.m. e.t. on each U.S. business day.

f. "SERVICE market maker" means an NASD member firm that is registered as a European-only or International market maker in one or more qualified securities.

Normal Business Hours

*Sec. 3.* The NASDAQ INTERNATIONAL market session (hereinafter referred to as the "European Session") will run from 3:30 to 9 a.m. e.t. on each business day in the U.S.; pre-opening procedures will commence at 2:30 a.m. e.t. Appropriate adjustments will be made in the event that the U.S. and the U.K. move to (or from) daylight-saving time on different dates. All times referenced in the International Rules relate to the Eastern Time zone of the United States.

Qualified Securities

*Sec. 4.* The NASD deems the following classes of securities qualified for inclusion in NASDAQ INTERNATIONAL:

(a) Any NASDAQ security that is designated a NASDAQ/NMS security.

(b) Any non-Canadian, foreign security or ADR that is included in NASDAQ but not designated a NASDQ/NMS security; and

(c) Any equity security that is listed on a registered national securities exchange. Inclusion of a qualified security in NASDQ INTERNATIONAL requires a market making commitment by one or more member firms that participate as SERVICE market markers.

Member Firm Access

*Sec. 5.* Access to the market making capabilities provided by NASDAQ INTERNATIONAL is restricted to broker-dealers that are NASD members, that have all equipment and communication lines specified by the NASD for receipt of NASDAQ Workstation ™ service, and that satisfy the financial and operational requirements applicable to market makers in NASDQ securities and/or exchange-listed securities traded off-board during the Domestic Sesssion.

NASD members that utilize NASADQ Workstation ™ units to receive Level 2 NASDQ Service during the Domestic Session can also receive real-time quotation information entered by SERVICE market makers. Similar access terms will be provided to non-member. Level 2 subscribers utilizing NASDQ Workstation ™ units.

Requirements Applicable to Market Makers

*Sec. 6.* NASD members can function as SERVICE market makers by registering with the NASD in one or more qualified securities. Two classifications of market-makers are authorized: (i) European-only and (ii) International. A member firm can register in either capacity in any qualified security. A European-only registrant must fulfill the market making obligations specified below in each of its registered securities during the European Session. An International registrant assumes identical responsibilities in its registered securities during the European Session as well as the responsibilities of a NASDAQ and/or Consolidated Quotation Service ("COS") marker maker in those same securities during the Domestic Session.

Market Maker Obligations

The following requirements and procedures govern a member's participation in NASDAQ INTERNATIONAL as a SERVICE market maker

(a) *Registration.* (i) Quotations and quotation size may be entered into the SERVICE only by a SERVICE market maker.

(ii) To function as a SERVICE market maker, an NASD member must initially obtain registration as a European-only or International market maker by filing an application with the NASD. The application shall certify the member's good standing with the NASD, demonstrate compliance with the net capital and other financial responsibility provisions of the Securities Exchange Act of 1934 and the rules thereunder, and specify the qualified security(ies) in which the member is seeking to register as a European-only or Interntional market maker. Initial registration as a SERVICE market maker shall become effective upon the member's receipt of the NASD's notice approving such registration.

(iii) A SERVICE market maker may become registered in a newly qualified security by telephoning Market Operations. If registration is requested within five (5) business days after the issue became qualified, registration shall take effect at the time the request is entered.

(iv) A SERVICE market maker may register in additional qualified securities by entering a registration request via its NASDAQ Workstation™ unit authorized for receipt of the SERVICE. If registration is requested respecting a security that has been a qualified security for more than five (5) days, and the requirements of subsection (ii) above are satisfied, registration shall take effect on the day after the registration request is entered.

(v) Registration in a qualified security shall be terminated by the NASD if the SERVICE market maker fails to enter quotations in that security within five (5) business days after its registration in that security first became effective.

(b) *Normal business hours.* SERVICE market makers must be open for business from 3:30 a.m. to 9 a.m. e.t. on each U.S. business day. (Appropriate adjustments will be made in the event that the U.S. and U.K. move to (or from) daylight saving time on different dates.) Additionally, SERVICE market makers that are International market makers in one or more qualified securities must be open for business during the hours of the Domestic Session.

(c) *Character of quotations.* (i) For each security in which a member has registered as a SERVICE market maker, the member shall be willing to buy and sell such security for its own account on a continuous basis and shall enter and maintain two-sided quotations in the SERVICE during the hours specified above in subsection (b), subject to the procedures for excused withdrawal set forth in subsection (d) below.

(ii) A SERVICE market maker that receives an offer to buy or sell from another NASD member shall execute a transaction for at least a normal unit of trading at its displayed quotations as

disseminated through the SERVICE at the time of receipt of any such offer. If a SERVICE market maker displays a quotation for a size greater than a normal unit of trading, it shall, upon receipt of an offer to buy or sell from another NASD member, execute a transaction at least at the size displayed.

(iii) A SERVICE market maker shall enter and maintain quotations that are reasonably related to the prevailing market. If it appears that such market maker's quotations are no longer reasonably related to the prevailing market, the NASD may require the firm to re-enter its quotations. However, if that SERVICE market maker fails to re-enter its quotations, the NASD may suspend the firm's quotations in one or all of the qualified securities in which it is registered.

(iv) If a SERVICE market maker's ability to enter or update quotations is impaired, the market maker shall immediately contact Market Operations to request the withdrawal of its quotations.

(v) If a SERVICE market maker's ability to enter or update quotations is impaired and it elects to remain in the SERVICE, the market maker shall execute an offer to buy or sell received from another NASD member at its quotations as disseminated through the SERVICE.

(vi) A SERVICE market maker should refrain from entering quotations into the SERVICE that exceed the guidelines for maximum allowable spreads set forth below.

SPREAD GUIDELINES

| Average spread | Maximum allowable spread |
|---|---|
| ⅛ or less | ¼ |
| ¼ | ½ |
| ⅜ | ¾ |
| ½ | 1 |
| ⅝ | 1 |
| ¾ | 1 ½ |
| ⅞ | 1 ½ |
| 1 | 1 ½ |
| 1 ⅛ | 1⅝ |
| 1 ¼ | 1¾ |
| 1 ⅜ | 1⅞ |
| 1 ½ | 2 |
| 1⅝ | 2 |
| 1¾ | 3 |
| 1⅞ | 3 |
| 2 | 3 |
| 2⅛ | 3 |
| 2¼ | 3 |
| 2⅜ | 3 |
| 2½ | 3 |
| 2⅝ | 4 |
| 2¾ | 4 |
| 2⅞ | 4 |

For an average spread of 3 or more, the maximum allowable spread is 125 percent of the average spread rounded to the next highest whole number.

The NASD regards these spread parameters as guidelines rather than absolute requirements. Nonetheless, the NASD will continuously monitor the quotation spreads of every SERVICE market maker and consider taking disciplinary action upon finding a pattern of excessive spreads disseminated during European Sessions. A pattern of excessive spreads will be deemed to exist where a SERVICE market maker exceeds the applicable guideline of five or more occasions in the same qualified security during a calendar month or exceeds the applicable guideline respecting at least 10% of its quotation updates entered into the SERVICE during a calendar month.

(vii) A SERVICE market maker shall not, except under extraordinary circumstances, enter or maintain quotations in the SERVICE during the European Session if: The bid quotation entered is equal to or greater than the asked quotation of another SERVICE market maker displaying quotations in the same qualified security; or the asked quotation is equal to or less than the bid quotation of another SERVICE market maker displaying quotations in the same qualified security.

(viii) A SERVICE market maker shall, prior to entering a quotation that locks or crosses another quotation, make reasonable efforts to avoid such locked or crossed market by executing transactions with all SERVICE market makers whose quotations would be locked or crossed. A SERVICE market maker whose quotations are causing a locked or crossed market is required to execute transactions at its quotations as displayed through the SERVICE at the time of receipt of any order.

(d) *Withdrawal of quotations.* (i) A SERVICE market maker that wishes to withdraw its quotations in a qualified security shall contact Market Operations to obtain excused withdrawal status prior to effecting withdrawal. Excused withdrawals shall be granted by Market Operations only upon the demonstration of the existence of one of the circumstances set forth in paragraphs (ii) and (iii) below.

(ii) Excused withdrawal status based on physical circumstances beyond the SERVICE market maker's control may be granted for up to five (5) business days, unless extended by Market Operations. Excused withdrawal status based on demonstrated legal or regulatory requirements, supported by appropriate documentation and accompanied by a representation that the condition necessitating the withdrawal of quotations is not permanent in nature, may, upon written request, be granted for not more than sixty (60) days. Excused withdrawal status based on religious holidays or national holidays in the U.K. may be granted only if the request is received by the NASD five (5) business days in advance and is approved by the NASD. Excused withdrawal status based on vacation may be granted only if: the request for withdrawal is received by the NASD twenty (20) business days in advance, and is approved by the NASD; the request includes a list of the securities for which withdrawal is requested; and the request is made by a SERVICE market maker with three (3) or fewer NASDAQ Workstation™ units authorized for market making in the SERVICE. The following shall not constitute acceptable reasons for granting excused withdrawal status; pending news, a sudden influx of orders or price changes, or the desire to effect transactions with competitors.

(iii) Excused withdrawal status may be granted to a SERVICE marker maker that fails to maintain a clearing arrangement with a registered clearing agency or with a member of such an agency and is therefore withdrawn from participation in the NASD's Automated Confirmation Transaction SERVICE. However, if the NASD finds that the SERVICE market maker's failure to maintain a clearing arrangement is voluntary, the withdrawal of quotations will be deemed a voluntary termination pursuant to subsection (e) below.

(c) *Voluntary termination of registration.* A SERVICE market maker may voluntarily terminate its registration is a qualified security by withdrawing its quotations in that security from the SERVICE. A market maker that voluntarily terminates its registration in a qualified security may re-register to quote that security in the SERVICE in accord with procedures contained in subsection (a) above. Nonetheless, if an International market maker voluntarily terminates both the domestic and European components of its registration in a qualified security that is included in NASDAQ ("qualified NASDAQ security"), the member cannot re-register to quote that qualified NASDAQ security during the Domestic Session until twenty (20) business days have elapsed. This waiting period would not apply where an International market maker in a qualified NASDAQ security had terminated the Eureopean component of its registration but maintained the domestic component.

(f) *Stabilizing bids.* (i) A SERVICE market maker may enter a stabilizing bid in the SERVICE for a qualified NASDAQ security, which bid will be identified with the appropriate identifier

on the quotation display. Only one market maker in an issue may enter a stabilizing bid. A stabilizing bid will not be displayed unless one market maker in addition to the market maker entering the stabilizing bid is registered in the issue and enters quotations during the European Session.

(ii) A stabilizing bid, a pre-effective stabilizing bid, or a penalty bid may be entered into the SERVICE. A stabilizing bid must be available for all freely tradeable outstanding securities of the same class being offered.

(iii) Notice to the NASD.—(A) A SERVICE market maker that wishes to enter a stabilizing bid shall so notify Market Operations in writing prior to the first day on which the stabilizing bid is to appear in the SERVICE. The notice shall include: the name of the qualified NASDAQ security and its NASDAQ symbol; the date on which the security's registration will become effective, if it is already quoted in the SERVICE; whether the stabilizing bid will be a penalty bid or a penalty-free bid; and a copy of the preliminary prospectus or shelf registration statement, unless the NASD determines otherwise.

(B) In the case of a pre-effective stabilizing bid, the notice shall include the name of the qualified NASDAQ security and its NASDAQ symbol; the contemplated effective date of the offering; whether it is contemplated that the pre-effective stabilizing bid will be converted to a stabilizing bid and, if so, whether the stabilizing bid will be a penalty bid or a penalty-free bid; and a copy of the preliminary prospectus, unless the NASD determines otherwise.

(C) A SERVICE market maker that has provided the written notice prescribed above shall also contact Market Operations for authorization on the day the market maker wishes to enter the stabilizing bid into the SERVICE.

(iv) A SERVICE market maker shall not enter a stabilizing bid at the same time that it is quoting any other bid or offer in the qualified NASDAQ security.

(v) A SERVICE market maker entering a stabilizing bid shall report all purchases made on the stabilizing bid and enter "zero volume" for sales during the period in which the stabilizing bid is in effect.

Automated Submission of Trading Data

*Sec. 7.* A member that participates in NASDAQ INTERNATIONAL as a SERVICE market maker or an order-entry firm shall submit to the NASD the trade data specified below in automated format as may be prescribed by the NASD from time to time. This information shall be supplied with respect to any transaction or transactions that are the subject of a request for information made by the NASD.

(a) If the transaction was a proprietary transaction effected or caused to be effected by the member for any account in which such member, or person associatd with a member, is directly or indirectly interested, such member shall submit or cause to be submitted the following information:

(i) Clearing house number, or alpha symbol as used by the member submitting the data;

(ii) Clearing house number(s), or alpha symbol(s) as may be used from time to time, of the member(s) on the opposite side of the transaction;

(iii) Identifying symbol assigned to the security;

(iv) Date transaction was executed;

(v) Number of shares, ADRs, units, warrants or rights for each specific transaction and whether each transaction was a purchase, sale, short sale;

(vi) Transaction price;

(vii) Account number; and

(viii) Market center where transaction was executed.

(b) If the transaction was effected or caused to be effected by the member for any customer account, such member shall submit or cause to be submitted the following information:

(i) The data described in paragraphs (i) through (viii) of subsection (a) above;

(ii) Customer name, address(es), branch office number, registered representative number, whether order was solicited or unsolicited, date account opened and employer name, and the tax identification number(s); and

(iii) If the transaction was effected for another member, whether the other member was acting as principal or agent on the transaction or transactions that are the subject of the NASD's request.

(c) In addition to the above trade data, a member shall submit such other information in such automated format as may from time to time be required by the NASD.

(d) the NASD may grant exceptions from the requirement that the data prescribed in subsections (a) and (b) above be submitted to the NASD in an automated format, in such cases and for such time periods as it deems appropriate.

Reports

*Sec. 8.* Every NASD member that functions as a SERVICE market maker shall submit the following reports to the NASD at the frequency specified.

(a) As to each non-NMS security that a SERVICE market maker is registered to quote in the SERVICE, it shall report daily, no later than 9:17 a.m. E.T., its total volume (purchases and sales) transacted during that day's European Session. If a SERVICE market maker in a non-NMS security transacts no volume during the European Session, it shall report "zero volume" in that security for the Session. Every SERVICE market maker shall report the foregoing volume information via a NASDAQ Workstation™ unit authorized for market maker participation in the SERVICE or through a computer-to-computer interface ("CTCI"). In the event of equipment malfunction or failure, volume information shall be telephoned to Market Operations.

(b) A SERVICE market maker shall also report each business day all other data relating to qualified sections quoted in the SERVICE as the NASD shall require.

(c) A SERVICE market maker shall report monthly such data on qualified securities that are quoted in the SERVICE as the NASD shall require.

(d) A SERVICE market maker shall make such other reports as the NASD may prescribe from time-to-time.

Clearance and Settlement of International Transactions

*Sec. 9.* NASD members that effect international transactions must clear and settle all such transactions through a clearing agency registered with the Securities and Exchange Commission that uses a continuous net settlement system. This requirement may be satisified through a member's direct participation in a suitable clearing agency or through a clearing arrangement with another member that maintains such participation.

For purposes of this Section, the term "international transaction" means every transaction having the following three characteristics: (i) The transaction involves a qualified security quoted in the SERVICE by at least one registered market maker; (ii) the transaction is consummated between two NASD members during the hours of the European Session; and (iii) the transaction involves at least one NASD member (acting in a principal or agency capacity) that is registered as a European-only or International market maker in any qualified security.

Participation in the Trade Acceptance and Reconciliation Service and the Automated Confirmation Transaction Service are mandatory for self-clearing members.

Suspension and Termination of Quotations by NASD Action

Sec. 10. The NASD may, pursuant to the procedures set forth in the NASD Code of Procedure, suspend, condition, limit, prohibit or terminate a SERVICE market maker's authority to enter quotations in one or more qualified securities for violations of the applicable requirements or prohibitions contained in the International Rules, the NASD Rules of Fair Practice, the NASD By-Laws, and Schedules thereto.

Termination of Access

Sec. 11. The NASD may, upon notice, terminate access to NASDAQ INTERNATIONAL in the event that a SERVICE market maker fails to qualify under specified standards of eligibility for NASD membership or participation in the SERVICE or fails to pay promptly for services rendered by the NASD or its subsidiaries.

Transaction Reporting Requirements

Sec. 12. During the European Session, members registered as International or European-only market makers shall observe the following requirements for reporting transaction information to the NASD on certain securities quoted in NASDAQ INTERNATIONAL.

(a) Definitions. (i) "International Participant" means any NASD member registered as an International or European-only market maker in at least one qualified security, including a non-NMS security.

(ii) "SERVICE security" means any NASDAQ/NMS or exchange-listed security that is quoted in NASDAQ INTERNATIONAL by at least one registered market maker.

(iii) "Reportable transaction" means any round-lot transaction in a SERVICE security effected during the European Session with an International Participant being on one or both sides. The following are not deemed to be reportable transactions: (1) Transactions which are part of a primary distribution (other than shelf registrations) or of an unregistered secondary distribution; (2) transactions executed on and reported to a securities exchange domiciled outside the U.S.; (3) transactions made in reliance on Section 4(2) of the Securities Act of 1933; (4) transactions where the buyer and seller have agreed to trade at a price substantially unrelated to the current market for a SERVICE security, e.g., to enable the seller to make a gift; and (5) purchases or sales of SERVICE securities effected upon the exercise of an option pursuant to the terms thereof or the exercise of any other right to acquire securities at a preestablished consideration unrelated to the current market.

(iv) "Trade report" refers to the entry of the following elements of information for each reportable transaction: Security symbol, price (exclusive of commission, mark-up, or mark-down), volume, and a symbol indicating whether the transaction is a buy, sell or cross.

(b) Timely trade reports. International Participants shall enter trade reports on all reportable transactions within three minutes of execution via a NASDAQ Workstation™" unit authorized for receipt of NASDAQ INTERNATIONAL or through a CTCI. Trade reports not submitted within three minutes of execution shall be designated as late by addition of the "SLD" indicator. A pattern or practice of late reporting without exceptional circumstances may be considered conduct inconsistent with high standards of commercial honor and just and equitable principles of trade, in violation of Article III, section 1 of the NASD Rules of Fair Practice.

(c) Obligation to submit trade reports on reportable transactions. (i) In transactions between two International Participants that are both SERVICE market makers in the affected SERVICE Security, only the member representing the sell side shall report.

(ii) In transactions between two International Participants where only one is a Service market maker in the affected SERVICE security, the latter member shall report.

(iii) In transactions between two International Participants where neither is a SERVICE market maker in the affected SERVICE security, only the member representing the sell side shall report.

(iv) In transactions between an International Participant and a non-member, the International Participant shall report. Where an International Participant acts as a dual agent in a reportable transaction, it shall be reported only once by the International Participant.

(v) In transactions between an International Participant and another member that is not an International Participant, only the International Participant shall report.

(d) Aggregation of trade reports. (i) The following procedures and requirements apply exclusively to an International Participant registered as a SERVICE market maker in a particular SERVICE security.

(ii) Under the following conditions, individual trade reports in a SERVICE security at the same price may be aggregated into a single trade report by a SERVICE market maker in that security:

(A) Orders received prior to opening of the European Session and simultaneously executed at the opening;

(B) Orders received during a trading halt and executed simultaneously when trading resumes;

(C) Orders relayed to the trading department of the SERVICE market maker for simultaneous execution at the same price:

(D) Simultaneous executions by the member of customer transactions at the same price, e.g., multiple limit orders being executed at the same time when a limit price has been reached; or

(E) Orders received or initiated by the SERVICE market maker that are impratical to report individually and are executed at the same price within two minutes of execution of the initial transaction; provided, however, that no individual order of 10,000 shares or more may be aggregated in a trade report and that the aggregated trade report shall be made within three minutes of the initial execution reported therein.

(iii) In no instance shall a SERVICE market maker delay entry of its opening quotations or resumption of trading in a SERVICE security for the purpose of aggregating trade reports. Further, a SERVICE market maker is prohibited from withholding a trade report in anticipation of aggregating the transaction with others.

(iv) A SERVICE market maker shall identify aggregated trade reports and the underlying order tickets in a manner prescribed by the NASD.

(e) All trade tickets for reportable transactions shall be time-stamped at the time of execution. Members that utilize screen-based systems for executing transactions shall satisfy this requirement by ensuring that such a system assigns an appropriate execution time to each reportable transaction.

(f) Weekly Reports. International Participants shall submit trade reports weekly respecting SERVICE securities in the following circumstances:

(i) European-only market makers—transactions in SERVICE securities executed outside hours of the European Sessions;

(ii) International market makers—transactions in SERVICE securities executed outside the hours of both the European Session and the Domestic Session;

(iii) European-only and International Market Makers—weekly reporting of transactions in SERVICE securities that were effected during the European Session and were omitted inadvertently from reported volume during the preceding week's European Sessions.

Audit Trail Requirements

*Sec. 13.* All existing requirements for submitting audit trail information to the NASD, either directly or through a registered clearing agency, shall extend to members' participation in NASDAQ INTERNATIONAL. The applicable requirements were published in NASD Notices-to-Members 84–55 (October 15, 1984) 85–24 (April 12, 1985), and 85–72 (October 30, 1985), which notices are hereby incorporated by reference.

**II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change**

In its filing with the Commission, the NASD included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below and is set forth in sections (A), (B) and (C) below.

*A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change*

The purpose of this filing is to obtain Commission approval to extend the NASD's electronic market facilities to an early morning session that would run from 3:30 a.m. e.t. to 9 a.m. e.t. on each U.S. business day. These hours correspond to the business hours of the financial market hours in London. The SERVICE is primarily designed to accommodate international trading by institutional investors located in the U.S., U.K., and other parts of Europe. Accordingly, the NASD has chosen to label the expanded market session as its European Session. This Session will not overlap the NASD's domestic market, which operates from 9:30 a.m.. to 4 p.m. e.t. each U.S. business day.

The NASDAQ INTERNATIONAL pilot will consist of the basic automation services currently provided during the Domestic Session to support market making by NASD members in NASDAQ, NASDAQ/NMS and exchange-listed securities. Access to these services for market making during the European Session will be available exclusively through NASDAQ Workstation™ units.[2] To function as a market maker in NASDAQ INTERNATIONAL, a broker-dealer must be an NASD member and therefore, a broker-dealer registered with the Commission under section 15(b) of the Act. It is anticipated that member firms located in the U.S. as well as the U.K. will participate as SERVICE market makers. A U.S. firm with no U.K. branch could participate by staffing its U.S. trading desk during the European Session. Simiarly, a U.K. firm could participate through a U.S. affiliate, or through a U.K. branch of that affiliate. Regardless of operational structure, all broker-dealer particpants in the SERVICE must be NASD members and will be willing to comply with the International Rules.

Two classifications of market makers are authorized for the SERVICE, European-only and International. European-only market makers will be obliged to quote firm, two-sided markets in the qualified securities in which they have registered throughout the European Session. International market makers will have identical obligations during the European Session and in addition, be obliged to function as market makers in their respective registered securities during the Domestic Session. During the latter period, International market makers will assume the full range of obligations that now apply to member firms that are registered as NASDAQ or CQS market makers. In contrast, registration in a European-only capacity involves no market making obligations in those qualified securities during U.S. trading hours.

To provide maximum flexibility, market maker classifications will be assigned on an individual security and terminal basis, not on a firm-wide basis. Thus, a participating firm could use a NASDAQ Workstation™ unit located in the U.S. to enter quotations as a European-only market maker in 10 qualified issues, an International market maker in 20 additional issues, and as a U.S. (only) market maker in another 15 issues. The nature of a firm's classification in a particular issue will determine the scope of its market-making obligations in that issue. The diagram below illustrates the hours of mandatory and optional participation for the three classes in which market makers may register when the SERVICE commences operation.

| | | | | | |
|---|---|---|---|---|---|
| | A.M. | P.M. | | | |
| UK Time | 8:30 | 2:00 | 2:30 | 9:00 | 11:30 |
| | | A.M. | | P.M. | |
| US Time | 3:30 | 9:00 | 9:30 | 4:00 | 6:30 |
| European | ======= | | | | |
| US [3] | | ======= | | ----- | |
| International | ======= | ======= | | ----- | |

====== Mandatory.
------ Optional.
[3] The day-to-day operations of this category of market makers will not be affected by the advent of NASDAQ International.

A market maker's classification is set at the time of initial registration (or re-registration). Excused withdrawals and voluntary terminations of market maker registration will be handled in essentially the same manner as they are today respecting the NASD's Domestic Session. One noteworthy difference is the application of the twenty-day waiting period for re-registration in a security included in NASDAQ. Section 9, part VI of schedule D to the NASD By-Laws specifies that a market maker which voluntarily terminates its registration in a NASDAQ security cannot re-register in that security for twenty business days. With respect to the SERVICE, this waiting period will only apply to instances of re-registration to quote a qualified NASDAQ security during the Domestic Session.

As noted above, an International market maker is defined as a broker-dealer that maintains markets in one or more qualified securities during the European and Domestic Sessions. Operationally, this may be done by using the same market-maker identifier ("MMID"), including the same location identifier for both sessions. Thus, a single NASDAQ Workstation™ unit located in the U.S. (or the U.K.) could be

[2] Additionally, NASDAQ Level 1 SERVICE and the National Quotation Data SERVICE respecting the European Session will be furnished through vendors of securities information.

authorized to receive the SERVICE and support the member firm's activities as an International market maker between 3:30 a.m. and 4 p.m. e.t. Alternatively, an International market-making commitment could be fulfilled by linking two trading desks of the same firm, utilizing two different location identifiers. Under this scenario, a U.S. firm with the MMID ABCD could have a trader at its London branch, with ABCDX as its MMID.[4] ABCDX would function as market maker in one or more qualified securities during the European Session while ABCD (representing the U.S. trading desk) would function as the market maker in the same securities during the Domestic Session. Such an arrangement would allow the market maker's book to pass shortly before the U.S. market opens.[5] In this manner, the SERVICE will accommodate the market-making practices of member firms located in the U.S. that have a trading desk in the U.K., or vice versa. Supervisory action by the NASD staff would be required to initiate the system linkage that would enable the book to pass between two trading units of the same firm.

During the initial phase of NASDAQ INTERNATIONAL, all qualified issues will be quoted and traded exclusively in U.S. dollars. The ranking of market maker quotes in an eligible security will continue to be based on price, and by time within price. Further, a closed quote will appear below all open positions. The following diagram illustrates a basic, bid-ranked screen display of market making interest in security AAPL during the European Session.

| Sec ID | AAPL |
|---|---|
| INS | 47½–48 |
| ABCDX | 47½–48½ |
| MOTC | 47½–49 |
| TSCO | 47½–48½ |
| SAXP | 47–48 |
| GSCO | 47½–48½ C |

This diagram reveals that the inside market in AAPL is 47½–48. Market maker ABCDX appears first because it is quoting the highest bid and has time priority over the matching bids of MOTC and TSCO. Although MOTC and TSCO have identical bids, MOTC ranks ahead based on time priority. SAXP follows because its bid is inferior to the other three active market makers. GSCO appears last position because the firm's quote reflects a closed status.[6] Of the four market makers that are open, only ABCDX is quoting a market in the SERVICE from the U.K.

Market markers participating in the European Session will be subject to most of the operational requirements that currently apply to broker-dealers registerd in NASDAQ or CQS issues. The principal requirements are summarized below:

(1) Registration on a security-by-security basis by individual member firms is a prerequisite for market making in the SERVICE.

(2) Registered market makers must either be self-clearing or have a clearing arrangement with a firm that is a member of a registered clearing agency.

(3) Participation in the Trade Acceptance and Reconciliation Service ("TARS") and the Automated Confirmation Transaction Service ("ACT") will be mandatory for self-clearing firms.

(4) All trades classified as international transactions [7] must be cleared and settled through a registered clearing agency using a continuous net settlement system; a settlement cycle of 5 business days will apply to all "regular way" transactions.

(5) Real-time transaction reports for NASDAQ/NMS and listed securities quoted in the SERVICE must be entered within 3 minutes of execution during the European Session.[8]

(6) Daily volume reports (purchases and sales) respecting non-NMS securities that are quoted in the SERVICE must be made to the NASD no later than 9:17 a.m. e.t. following the close of each European Session.

(7) Market makers using the SERVICE to quote NASDAQ/NMS securities will not incur the obligations of a Small Order Execution System ("SOES") market maker because SOES will not operate during the European Session. International market makers in NASDAQ/NMS securities will assume SOES obligations during the Domestic Session.

(8) Market maker participants in the SERVICE will be obligated to maintain firm, two-sided quotes throughout the European Session in each qualified security in which they have registered as a European-only or International market maker.

(9) During the start-up phase of NASDAQ INTERNATIONAL, no automated order routing or automated execution capability will be provided. An enhanced version of the NASD's Order Confirmation Transaction ("OCT") service will be added shortly after the SERVICE commences operation. Meanwhile, member firms wishing to transact with SERVICE market makers will rely on telephonic communications to enter orders and negotiate executions.

The NASD believes that broad dissemination of quotation information from SERVICE market makers will assist in promoting interest among institutional investors that transact business in various national markets. Accordingly, the NASD intends to furnish interested vendors with broadcast feeds of quotation updates for all qualified securities that are entered by SERVICE market makers during the European Session. These feeds will enable vendors to offer their subscribers the same types of real-time quotation data that are now available during the Domestic Session.[9] The NASD will distribute this quotation information directly to vendors via existing link-ups.

Although the NASD will collect on-line transaction reports in SERVICE securities (*i.e.*, NASDAQ/NMS and listed securities quoted in the SERVICE) during the European Session, this information will not be published. Instead, it will be captured and

[4] A unique fifth character ("X" in this example) will be appended to a participant's MMID to denote a market making position in the U.K. The absence of that unique character will indicate a market making position in the U.S.

[5] For this purpose, "passing the book" is defined as changing the geographic location of a market-making position intra-day. The market making position of ABCD, an NASD member functioning as an International market maker in stock AAPL, will pass from its London trader, ABCDX, to its New York trader, ABCD, under the above-described arrangement. Of course, ABCDX may also function as the firm's European-only market maker in other qualified securities in which the firm's New York office does not maintain market-maker positions. Finally, a second alternative for a passing-the-book arrangement would be a single firm making markets with unique four character MMIDs representing its New York and London offices, respectively.

[6] Market makers participating in the European Session will have access to the previous day's closing quotes from the U.S. trading session. Further, participants in the U.S. session will have access to that day's closing quotes from the European Session.

[7] Section 9 of the International Rules defines "international transactions" as every transaction which has the following three characteristics: (i) The transaction involves a qualified security quoted in the SERVICE by at least one registered market maker; (ii) the transaction is consummated between two NASD members during the hours of the European Session, and (iii) the transaction involves an NASD member (acting in a principal or agency capacity) who is registered as a European-only or International market maker in any qualified security.

[8] This standard corresponds to an accepted standard for real-time trade reporting in the U.K.

[9] *E.g.*, the NASDAQ Level 1 service and the National Quotation Data Service.

processed exclusively for market oversight purposes. At a later date, the NASD may determine to disseminate this last sale information in the same manner that such information is now published with respect to the Domestic Session. Nonetheless, summary quotation information from the European Session will be furnished to vendors shortly after the Session's 9 a.m. close.

Volume (but not price) information from the European Session respecting transactions in qualified NASDAQ securities will be aggregated with the corresponding information from the Domestic Session for dissemination to the news media/vendors on an end-of-day basis. With regard to qualified listed securities, the NASD will pursue an arrangement with other participants in the Consolidated Tape Association (and its exclusive processor, the Securities Industry Automation Corporation) to effect aggregation of volume information at the end of the Domestic Session.

The formulation of appropriate access terms, including cost-based subscribers fees for receipt of NASDAQ INTERNATIONAL information by Level 2 or Level 3 subscribers, will be covered in a subsequent Rule 19b–4 filing. Because certain facets of the SERVICE are still being developed, it is not possible to quantify the entire cost of the project. Moreover, the NASD lacks definitive data on the universe of potential market maker participants and other subscribers. Accordingly, it is not yet possible to formulate cost-based subscriber fees for receipt of the SERVICE.

Statutory Bases

The NASD relies on sections 11A(a)(1)(B) and (C), 15A(b)(6), and 17A(a)(1) of the Act as providing the statutory bases for the instant rule proposal. Subsections (B) and (C) of section 11A(a)(1) set forth the congressional goals of achieving more efficient and effective market operations, broader availability of information with respect to quotations for securities, and the execution of investor orders in the best market through the use of new data processing and communications techniques. Section 15A(b)(6) requires that the NASD rules be designed "to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market * * *" Section 17A(a)(1) expresses the congressional goal of linking all clearance and settlement facilities and reducing costs involved in the clearance and settlement process through the use of new data processing and communications techniques.

The Commission's consideration of File No. SR–NASD–90–33 provides a unique opportunity to advance the statutory goals cited above in connection with the globalization of major securities markets. NASD International consists of an extension of NASD's competitive dealer system to the U.K., and ultimately to other financial centers in Europe. By "exporting" its electronic inter-dealer market to the Continent, the NASD hopes to provide additional opportunities for the efficient execution and clearance of institutional orders via state-of-the-art systems. Likewise, operation of the Service is intended to promote additional commitments of member firms' capital to market making and to attract commitments from firms based in Europe that currently do not function as NASDAQ and/or CQS market makers. At the same time, the new Service will operate subject to the NASD's existing automated surveillance capabilities. This factor will reinforce the cooperative ties that currently exist between the NASD–and self-regulators such as The Securities Association in the U.K.

Based on the foregoing factors, the NASD submits that Commission approval of the Service would be fully consistent with the pertinent provisions of sections 11A, 15A, and 17A of the Act.

*B. Self-Regulatory Organization's Statement on Burden on Competition*

The NASD believes that initiation of NASDAQ International will impose no burden on competition among its members. This position is grounded on several factors: (1) Market maker participation in the Service is voluntary; (2) all market maker participants will be subject to the same operational requirements and regulations applicable to the European Session; and (3) the provision of uniform access to the Service via NASDAQ Workstation™ units regardless of a participant's geographic location. NASD believes that a successful launch of the Service will provide additional opportunities for competitive market making in each category of qualified securities.

The NASD recognizes that broad access to quotation information entered by Service market makers will be important to encourage use of the Service by institutional investors. Accordingly, the NASD intends to furnish vendors with high speed feeds of quotation information emanating from Service market makers. Essentially, the NASD will distribute, through vendors, data services corresponding to the National Quotation Data Service ("NQDS"), and NASDAQ Level 1 ("Level 1") for the Domestic Session.[10] The NASD anticipates that vendors will supplement the real-time market information currently provided to their subscribers with the quotation information originated by Service market makers. After the NASD has quantified the entire cost of the NASDAQ International initiative and assessed the level of subscriber interest, it will submit another Rule 19b–4 filing to establish appropriate subscriber charges for receipt of quotation information from the European Session. As stated in the preceding section, it is not yet possible to estimate the full costs of developing the Service or the universe of subscribers desiring to receive on-line quotation information from the European Session. Absent such information, the NASD cannot formulate appropriate charges for receipt of real-time data solely from the European Session.

Accordingly, the NASD believes that neither the structure nor the pilot operation of the Service will result in any burden on competition.

*C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others*

Comments were neither solicited nor received.

**III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) As the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the NASD consents, the Commission will:

A. By order approve such rule change, or

B. Institute proceedings to determine whether the proposed rule change should be disapproved.

[10] Currently, Level 1 and NQDS only provide quotation information on securities included in NASDAQ. With regard to NASDAQ International, these services will include quotation information on qualified listed securities that market makers elect to quote in the Service.

## IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street NW., Washington, DC 20549. Copies of the submissions, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of such filing will also be available for inspection and copying at the principal office of the NASD. All submissions should refer to the file number in the caption above and should be submitted by August 15, 1990.

Dated: July 18, 1990.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority, 17 CFR 200.30–3(a)(12).

**Margaret M. McFarland,**

*Deputy Secretary.*

[FR Doc. 90–17350 Filed 7–24–90; 8:45 am]

BILLING CODE 8010–01–M

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**[Rel. No. 34–28232; File No. SR–NASD–89–42]**

## Self-Regulatory Organizations; National Association of Securities Dealers, Inc.; Order Approving Proposed Rule Change Relating to Shareholder Approval of Certain Transactions for NASDAQ National Market System Issuers

The National Association of Securities Dealers, Inc. ("NASD" or "Association") submitted on September 18, 1989, to the Securities and Exchange Commission ("SEC or "Commission") a proposed rule change pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act") [1] and Rule 19b–4 thereunder.[2] The proposal amends the NASD's Schedule to the By-laws [3] as it pertains to shareholder approval of certain transactions by issuers of securities traded in the NASDAQ National Market System.

The rule change amends Part III of Schedule D to the NASD's By-Laws ("Schedule") which relates to qualification standards for NASDAQ National Market System ("NASDAQ/NMS") issuers and in particular section 5(i) which requires shareholder approval of certain issuances of securities. When the Commission last reviewed the NASD's shareholder approval requirements [4] it noted that it was in the process of reviewing a New York Stock Exchange ("NYSE") filing that would amend the NYSE shareholder approval policy and that the NASD had represented that, upon approval of the NASD rule filing, it would consider making conforming changes to the NASD rule within a period of ninety days.[5] The present rule change is pursuant to that representation. Although the NASD proposal differs from the NYSE rule,[6] the NASD has adopted the majority of changes to its shareholder approval policy which were of concern to the Commission.

The proposed rule change would require shareholder approval for certain issuances of 20% or more of an issuer's outstanding common shares. Specifically, such approval would be required in the context of an issuance for less than book or market value or in connection with the acquisition of another company. The NYSE rule requires shareholder approval when common shares are to be issued in any transaction and the 20% threshold is met.

Section 1(c) of the NASD rule would require shareholder approval of the acquisition of the stock or assets of another company in two circumstances. The first is where an officer, director or substantial security holder of the issuer has a 5% or greater interest in the company or assets to be acquired, and the issuance could result in a 5% of more increase in outstanding common shares or voting power. The second circumstance is where the issuance will be equal to 20% or more of the outstanding shares or voting power of the issuer.

Similarly, shareholder approval will be required for issuances of securities for less than the greater of book or market value (other than in the context of a public offering) if either: (a) The issurance equals 20% of outstanding stock; or (b) if a smaller issuance coupled with sales by the officers, directors or substantial security holders meets the 20% threshold. The NASD believes that the approach taken in the proposal regarding acquisitions and other transactions strikes an appropriate balance between shareholder protection and burden upon issuers.

In addition, the proposed rule change clarifies the fact that, with respect to stock option plans, shareholder approval is required of the plan itself and not of each issuance of securities pursuant to the plan. It removes the reference to "key employees" and provides that the rules does not generally apply to broadly based plans or arrangements, or to issuances which are an inducement to initial employment with a company. The propsal also establishes a *de minimis* exception to requiring shareholder approval with respect to option plans or arrangements where the securities which may be issued pursuant to the plan do not exceed the lesser of 1% of the number of shares/ voting power outstanding or 25,000 shares. This exception is not contained in the NYSE rule.

The proposal also incorporates the NYSE exception to the shareholder approval requirement relating to distressed companies and, mirroring the NYSE rule, requires shareholder approval of the issuance of securities in connection with any transaction resulting in a change of control of the issuer. Definitional explanations of a

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[1] 15 U.S.C. 78s(b)(1) (1982).

[2] 17 CFR 240.19b–4 (1989).

[3] *NASD Manual*, Schedule D, Part III, section 5, paragraph 1812

[4] *See* Securities Exchange Act Release No. 26433 (January 9, 1989), 54 FR 1463.

[5] *See* Securities Exchange Act Release No. 27035 (July 14, 1989), 54 FR 30490. Letter from Richard G. Ketchum, Director, Division of Market Regulation, to Joseph R. Hardiman, President, NASD dated September 5, 1989. Letter from Sullivan and Cromwell to Jonathan G. Katz, Secretary, SEC, dated September 9, 1988.

[6] The NYSE rule as approved and the NASD rule as proposed are similar. The major differences, between the two, however, result in the NASD's proposal being less comprehensive vis-a-vis proposed issuances which would require shareholder approval. Specifically:

(A) The NYSE rule requires shareholder approval for the issuance of common shares in any transaction if the issuance is equal to 20% or more of the common shares or voting power outstanding prior to the issuance (the "20% rule"). The NASD proposal qualifies the 20% rule in two ways. The 20% rule only would apply in the context of (a) An acquisition of another company or (b) an issuance for less than book or market value. Thus, issuances equal to 20% or more of the common shares or voting power outstanding, but not in connection with an acquisition of another company or not for less than book or market value, may occur without shareholder approval.

(B) The NYSE rule requires shareholder approval for an issuance when the issuing company is purchasing an asset from an officer, director, or substantial security holder of the issuer (an "insider provision"). The NASD proposal does not have a corresponding provision, although its current rule does contain such a requirement, which will be eliminated when the current proposal is approved.

(C) The NYSE rule requires a majority of the votes cast for an approval, provided the total votes cast represent at least 50% of those entitled to vote; the NASD proposal requires only a majority of those votes cast. The NASD recognizes that these differences exist and has concluded that they are appropriate for the NASD market. *See* letter from T. Grant Callery, Vice President and Deputy General Counsel, NASD to Katherine England, Branch Chief, Division of market Regulation, dated April 2, 1990.

substantial security holder and term "voting power" also are provided in the proposal.

Notice of the proposed rule change together with the terms of substance of the proposal was provided by the issuance of a Commission release (Securities Exchange Act Release No. 27489, November 30, 1989), and by publication in the **Federal Register** (54 FR 50550, December 7, 1989). No comments were received with respect to the proposed rule change.

The Commission believes that, on balance, the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to the Association and, in particular, the requirements of section 15A [7] and the rules and regulations thereunder. Although it is a close question whether the NASD's decision to limit the opportunity for shareholder approval of significant corporate transactions best furthers the goals of the Act, the Commission recognizes that individual markets should have flexibility in structuring their listing standards. In particular, where as here the NASD's NMS market is predominantly composed of less capitalized companies, the Commission does not believe that the Act compels the NASD to have the same shareholder approval standards as the NYSE, at least where the basic safeguards have been acted. Moreover, the NASD's proposed standards neither discriminate among issuers in contravention of section 15A(b)(6) of the Act, nor do they impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

*It is therefore ordered,* pursuant to section 19(b)(2) of the Act, that the above-mentioned purposed rule change be, and hereby is, approved.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[8]

Dated: July 19, 1990.

**Margaret M. McFarland,**

*Deputy Secretary.*

[FR Doc. 90-17360 Filed 7-24-90; 8:45 am]

BILLING CODE 8010-01-M

[7] 15 U.S.C. 78o-3 (1982).

[8] 17 CFR 200.30-3(a)(12).

**[Rel. No. 34-28206; File No. SR-NSCC-89-17]**

## Self-Regulatory Organizations; National Securities Clearing Corporation; Order Approving a Proposed Rule Change Relating to Procedures for Balance Order Buy-Ins

July 16, 1990.

On November 8, 1989, the National Securities Clearing Corporation ("NSCC") filed a proposed rule change (File No. SR-NSCC-89-17) with the Securities and Exchange Commission ("Commission") pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act").[1] Notice of the proposal was published in the **Federal Register** on April 12, 1992.[2] No comments were received. This order approves the proposal.

### I. Description of the Proposal

The proposed rule change authorizes the automated transmittal through Depository Trust Company's ("DTC's") Participant Exchange Service ("PEX") of "buy-in" notices,[3] as well as buy-in retransmittal notices,[4] between NSCC members for balance order securities. PEX is an on-line communication system that will enable NSCC members to use their existing DTC Participant Terminal System ("PTS") terminals to transmit and respond to buy-in notices and retransmittal notices.[5] These proposed automated procedures will be in addition to NSCC's existing paper format for buy-in notices and physical delivery procedures, which will continue in use.

Currently, an originating NSCC member ("originating member") submits buy-in and retransmittal notices in paper format to the NSCC member holding the deliver balance order ("subject member"). These notices, along with a copy of the receive balance order, are ordinarily hand delivered to the subject member.

Under this proposal, the originating member will enter into the PEX system the same data contained on the paper form buy-in notice. To enable the subject member to identify the balance order being brought-in, the originating member also must enter the balance order control number. The PEX system will transmit the data to the subject member who will receive a printed message containing the data. The originating member also will receive a printed ticket indicting receipt of the information by the system. The subject member may acknowledge, reject, or ignore a buy-in notice received through PEX.

The possibility exists that a subject member's PTS terminal may not be functioning at the time the notice is transmitted through PEX. Thus, NSCC's proposed rule specifically warns originating members that they proceed at their own risk in executing a buy-in in the event they have not received acknowledgment of the buy-in notice from the subject member.[6] Additionally, under the proposal, when a subject member retransmits to other members, the other members also become subject members, but the initial subject member, regardless of subsequent retransmittals, remains primarily liable to the originating member.

The proposal also adds a technical clarification concerning buy-ins of odd-lots. Specifically, the proposal would clarify that a subject member cannot receive a buy-in notice or retransmittal notice for a potential buy-in of securities that would create a remaining balance (after execution of the buy-in) of an odd-lot that was not contained in the original delivery balance order. Thus, NSCC buy-in procedures may be used to close-out an odd-lot position or a position that includes a round-lot and odd-lot; they also may be used to close-out a round-lot position leaving an existing odd-lot; but the buy-in procedures may not be used to create a new odd-lot.

### II. Rationale for the Proposal

NSCC states that the proposal will provide technical improvements by allowing automated transmittal through DTC's PEX of buy-in notices between

[1] 15 U.S.C. 78s(b)(1).

[2] *See* Securities Exchange Act Release No. 27873 (April 3, 1990), 55 FR 13875.

[3] The term "buy-in," in this context, refers to the buy-in procedures that one broker must follow when another broker (the defaulting broker) fails to deliver securities as promised. The non-defaulting broker must buy-in the securities to meet its own obligations, and liability for resulting losses may be imposed on the defaulting broker. The opposite of a buy-in is a "sell-out," where a broker may dispose of securities if another broker defaults by refusing to accept delivery as promised. *See,* M. Thompsett, Investment & Securities Dictionary, 38, 257 (1986); D. Scott, *Wall Street Words,* 42 (1988).

[4] A "retransmittal notice" is a notice that contains the same content as an original buy-in notice, that is submitted by a subject member to another party that owes the subject member units of the same securities issue that the subject member owes to the originating member. Telephone conversation between Alison N. Hoffman, Associate Counsel, NSCC, and Thomas C. Etter, Jr., SEC (July 10, 1990).

[5] Under NSCC's rules, the execution of buy-ins as well as their notice requirements is governed by Section X of NSCC's Procedures.

[6] *See* proposed NSCC Procedures, section X.B., p. 3. While not currently set forth in NSCC's rules, this policy already applies to notices transmitted in paper format when the originating member does not obtain a stamped receipt of the paper notice.

NSCC members for balance order securities. NSCC further states that the proposal will facilitate the prompt and accurate clearance and settlement of securities transactions by allowing the use of automated facilities for buy-in notices and that, consequently, it is consistent with section 17A of the Act.

**III. Discussion**

The Commission believes that the proposal is consistent with the Act and, in particular, with section 17A of the Act. The proposal is likely to improve the buy-in and close-out process for securities transactions settled through NSCC's balance order system.

Section 17A(a)(1) of the Act states that inefficient procedures for clearance and settlement of securities transactions impose unnecessary costs on investors and on persons facilitating transactions on behalf of investors. It further recognizes that automation creates the opportunity for more efficient, more effective, and safer procedures for the processing of securities transactions. Moreover, section 17A(b)(3)(F) states that clearing agency rules should be designed to promote the prompt and accurate clearance and settlement of securities transactions.

The Commission views this proposal is a laudable effort by NSCC to use automation to modernize antiquated procedures, in accordance with the Act. The use of an electronic communications network should improve both the speed and the reliability of buy-in message deliveries.

Concerning member responsibility for electronic buy-in transmissions, the text of the proposed rule expressly warns originating members that they proceed at their own risk in the event that they do not receive acknowledgment from the subject members before executing a buy-in. Thus, the rule puts users on notice of this point.[7] The rule proposal also notes that NSCC's buy-in procedures will permit existing odd-lot positions to be bought-in but will prohibit the use of buy-ins to create additional odd-lots. The Commission believes that such a housekeeping rule, by eliminating unnecessary processing for small amounts of securities, is consistent with efforts to improve marketplace efficiency.

**IV. Conclusion**

For the reasons discussed above, the Commission finds that the proposed rule change is consistent with the Act, particularly section 17A of the Act, and the rules and regulations thereunder.

*It is therefore ordered,* pursuant to section 19(b)(2) of the Act, that the above-mentioned proposed rule change (File No. SR–NSCC–89–17) be, and hereby is, approved.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[8]

**Margaret H. McFarland,**

*Deputy Secretary.*

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BILLING CODE 8010–01–M

[7] NSCC has informed the Commission that it will send copies of this rule to its members as an attachment to an Important Notice. Telephone conversation between Alison N. Hoffman, Associate Counsel, NSCC, and Thomas C. Etter, Jr., Attorney, SEC (July 10, 1990).

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**[Release No. 34–28219; File No. SR–NYSE–90–25]**

## Self-Regulatory Organziations; Filing of Proposed Rule Change by New York Stock Exchange, Inc., Relating To Establishment of Margin Requirements for OTC Options and Interest Rate Composites

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"), 15 U.S.C. 78s(b)(1), notice is hereby given that on May 14, 1990, the New York Stock Exchange, Inc. ("NYSE" or "Exchange") filed with the Securities and Exchange Commission ("Commission") a proposed rule change as described in Items I, II, and III below, which items have been prepared by the self-regulatory organization. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

**I. Self-Regulatory Organization's Statement of the Terms of Substance ofthe Proposed Rule Change**

The purpose of the proposed rule change is to establish margin requirements for over-the-counter ("OTC") options and options on interest rate composites. Specifically, among other things, the NYSE proposes the following initial and/or maintenance margin requirements for short positions in OTC options [1] overlying the following instruments (for all instruments listed below), the options writer must also post margin equal to 100% of the options premium received): (1) Stock and convertible corporate debt securities, 30%; (2) industry index stock group, 30%; (3) broad index stock group, 20%; and (4) certain U.S. government securities, 5%. The complete text of the proposed margin requirements is available at the places specified in Item IV below.

[8] 17 CFR 200.30–3(a)(12).

[1] For a description of OTC options see Item IIA, *infra.*

**II. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change**

In its filing with the Commission, the self-regulatory organization included statements concerning the purpose of and basis for the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The self-regulatory organization has prepared summaries, set forth in sections (A), (B), and (C) below, of the most significant aspects of such statements.

*(A) Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change*

(A) Purpose

The proposed rule change amends NYSE Rule 431 to establish margin requirements for over-the-counter ("OTC") options and interest rate composites.

OTC options contracts are not issued by the Options Clearing Corporation or listed on any national securities exchange. They are individually tailored agreements between a customer and broker-dealer designed to reflect the customer's individual needs as to strike price and expiration date. In general, these contracts are entered into by creditworthy domestic and foreign institutions, mutual funds and insurance companies. The options are usually written for periods of less than one year.

In response to requests from twenty-four member organizations, the Exchange staff has permitted OTC option agreements on a "pilot" basis utilizing interim margin requirements developed in conjunction with industry representatives. Before entering into an OTC option agreement, pilot participants are required to secure written Exchange approval and to identify both the individual products and the types and creditworthiness of customers.

The proposed amendments to NYSE Rule 431 establish specific margin requirements for OTC option contracts on: (1) U.S. government securities; and (2) convertible and non-convertible corporate debt securities including mortgage related securities. They also reduce the requirements for OTC options on stocks, narrow and broad based index groups.

On June 23, 1989, the Chicago Board Options Exchange ("CBOE") began trading contracts on two interest rate composites: (1) Short term interest rate options based on the most recently auctioned thirteen week Treasury bill,

and (2) long term interest rate options based on seven and ten year Treasury notes and thirty year Treasury bonds. The proposed amendments incorporate into Rule 431 the CBOE margin requirements approved by the SEC for interest rate composites.

(B) Statutory Basis

The proposed rule change is consistent with the requirements of section 6(b)(5) of the Act, which requires that the rules of the Exchange be designed to promote just and equitable principles of trade and to protect the investing public. In addition, the proposed rule change is consistent with the policy set forth in section 7(a) of the Act, which grants the Board of Governors of the Federal Reserve System the power to prescribe rules and regulations with respect to the amount of credit extended and maintained on a security for the purpose of preventing the excessive use of credit for the purchase or carrying of securities.

*(B) Self-Regulatory Organization's Statement on Burden on Competition*

The Exchange believes that the proposed rule change will not impose any burden on competition that is not necessary or appropriate in furtherance of the purpose of the Act.

*(C) Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others*

No written comments were either solicited or received.

**III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

Within 35 days of the date of publication on this notice in the **Federal Register** or within such longer period: (i) As the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) By order approve such proposed rule change, or

(B) Institute proceedings to determine whether the proposed rule change should be disapproved.

**IV. Solicitation of Comments**

Interested persons are invited to submit written data, views, and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW., Washington, DC 20549. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Section, 450 Fifth Street, NW., Washington, DC. Copies of such filing will also be available for inspection and copying at the principal office of the above mentioned self-regulatory organization. All submissions should refer to the file number in the caption above and should be submitted by August 15, 1990.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.

Dated: July 18, 1990.

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90-17345 Filed 7-24-90; 8:45 am]

BILLING CODE 8010-01-M

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**[Release No. 34-28205; File No. SR-OCC-90-04 and SR-ICC-90-03]**

## Self-Regulatory Organizations; Options Clearing Corp., et al., Proposed Rule Changes Relating to Cross-Margining

July 16, 1990.

Pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act"),[1] notice is hereby given that on March 15, 1990, the Options Clearing Corporation ("OCC") and the Intermarket Clearing Corporation ("ICC") filed with the Securities and Exchange Commission ("Commission" or "SEC") the proposed rule changes (File Nos. SR-OCC-90-04 and SR-ICC-90-03) as described in Items I and II below, which Items have been prepared by the self-regulatory organizations. The Commission is publishing this notice to solicit comments on the proposed rule changes from interested persons.

**I. Self-Regulatory Organizations' Statement of the Terms of Substance of the Proposed Rule Changes**

The proposed rule changes would expand the cross-margining program between OCC and ICC to certain non-proprietary accounts carried by participating clearing members of OCC and ICC on behalf of market professionals. The existing cross-margining program is limited to the cross-margining of proprietary accounts maintained by participating clearing members. This rule filing would expand the OCC/ICC cross-margining program to include positions carried in "Market Professional Accounts," a defined term that includes: (i) A combined market-makers' or specialists' account, a separate market-maker's or specialist's account, a registered trader's account, or a separate stock specialist's or separate stock market-maker's account;[2] or (ii) a separate customer floor trader's or off-floor trader's account or a combined floor traders' account.[3]

**II. Self-Regulatory Organizations' Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Changes**

In their filings with the Commission, the self-regulatory organizations included statements concerning the purpose of and basis for the proposed rule changes and discussed any comments they received on the proposed rule changes. The texts of these statements may be examined at the places specified in Item IV below. The self-regulatory organizations have prepared summaries, set forth in Sections A, B, and C below, of the most significant aspects of such statements.

*A. Self-Regulatory Organizations' Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Changes*

The primary purpose of the proposed rule changes is to expand the existing OCC/ICC cross margining program to provide for the cross-margining of positions in "Market Professional Accounts" carried by a clearing member. The program will be expanded by means of a Second Amended and Restated Intermarket Cross-Margining Agreement ("Amended Agreement") between OCC and ICC. The changes proposed in OCC's By-Laws (Article VI, section 23) and ICC's Rules (chapters I and V) are intended to implement the Amended Agreement.

The Amended Agreement includes the same general provisions as the existing agreement, modified as necessary to

[1] 15 U.S.C. 78s(b)(1).

[2] OCC and ICC use the unmodified terms "market-maker" and "specialist" in connection with options; OCC and ICC use the terms "stock market-maker" and "stock specialist" in connection with equities. Telephone conversation between James C. Yong, Deputy General Counsel, OCC, and Assistant Secretary, ICC, and Thomas C. Etter, Attorney, SEC, on April 17, 1990. *See* OCC By-Laws, Art. VI, Sect. 3(b), (c), and (e) for definitions of the subject accounts.

[3] The term "floor trader's account" is defined in ICC Rule 402.

accommodate non-proprietary cross-margining. Section 1 of the Amended Agreement includes certain additional definitions applicable to non-proprietary cross-margining. Sections 3 and 4 of the Amended Agreement are amended simply to apply the same cross-margining mechanism presently used for cross-margined firm accounts to the Market Professional Accounts. Section 5 of the Amended Agreement is amended to provide that, whereas funds resulting from the liquidation of cross-margined positions in the firm account would be deposited in the Proprietary Liquidating Settlement Account, proceeds from the liquidation of cross-margined positions in the Market Professional Accounts would be deposited in the particular Customers' Liquidating Settlement Account established in respect of the particular Market Professional Account at ICC. Under ICC's rules, a separate Liquidating Settlement Account is established for each account maintained by the clearing member with ICC on behalf of customers.

The changes proposed in Article VI, section 23 of OCC's By-laws and chapters I and V of ICC's Rules implement these provisions of the Amended Agreement. A definition of the term "Market Professional Account" is added as are references to such accounts so as to provide that a clearing member may elect to apply cross-margining procedures to those accounts so as to make explicit that the same mechanism presently used for cross-margining firm account shall apply to the cross margining of any pair of Market Professional Accounts.

With respect to margin resolution, ICC has chosen to accommodate non-proprietary cross-margining by eliminating rather than adding specific provisions. The ICC's definition of the term "Cross-Margining Account" has been deleted because it is not used, and the related Interpretation and Policy also is being deleted because it will be obsolete given the existence of a full-pledged cross-margining agreement.[4]

The proposal states in the filing that clearing members may elect to apply cross-margining treatment. The filing further states that each market professional whose positions are included in an account for which the clearing member has elected cross-margining will be required to execute a Notice of Election and Agreement ("Agreement"). As in the case of the OCC/Chicago Mercantile Exchange cross-margining arrangement,[5] this Agreement is being required in order to address certain technical, legal issues relating to non-proprietary cross-margining practices that arise under (1) The regulations adopted by the Commodity Futures Trading Commission pertaining to the segregation of customer funds, (2) the Federal Bankruptcy Code and other laws governing the distribution of customer property in the event of the liquidation of a securities broker or futures commission merchant, and (3) section 17A of the Act.

*B. Self-Regulatory Organizations' Statements on Burden on Competition*

OCC and ICC do not believe that the proposed rule changes would impose any burden on competition.

*C. Self-Regulatory Organizations' Statements on Comments on the Proposed Rule Changes Received from Members, Participants or Others*

Written comments were not and are not intended to be solicited by OCC or ICC with respect to proposed rule changes and none have been received by OCC or ICC.

**III. Date of Effectiveness of the Proposed Rule Changes and Timing for Commission Action**

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) As the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding, or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) By order approve such proposed rule change, or,

(b) Institute proceedings to determine whether the proposed rule change should be disapproved.

**IV. Solicitation of Comments**

Interested persons are invited to submit written data, views and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street NW., Washington, DC 20549. Copies of all submissions, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating the proposed rule change between the Commission any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Section, 450 Fifth Street NW., Washington, DC 20549. Copies of such filing also will be available for inspection and copying at the principal office of the above-mentioned self-regulatory organizations. All submissions should refer to File Nos. SR–OCC–90–04 and SR–ICC–90–03 and should be submitted by August 15, 1990.

For the Commission by the Division of Market Regulation, pursuant to delegated authority.[6]

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90–17352 Filed 7–24–90; 8:45 am]

BILLING CODE 8010–01–M

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**[Release No. 34–28222; File No. SR–PSE–90–16]**

## Self-Regulatory Organizations; Pacific Stock Exchange, Inc.; Order Approving Proposed Rule Change Relating to Amendment to Rule II, Section 3(h)—Cancellations Prior to Opening

On May 14, 1990, the Pacific Stock Exchange, Inc. ("PSE" or "Exchange") submitted to the Securities and Exchange Commission ("Commission"), pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act") [1] and Rule 19b–4 thereunder,[2] a proposed rule change to amend Rule II, section 3(h) to reduce the period during which a specialist may decline to accept the cancellation of orders prior to the opening.

The proposed rule change was noticed in Securities Exchange Act Release No. 28090 (June 4, 1990), 55 FR 23624 (June 11, 1990). No comments were received on the proposal.

PSE Rule II, section 3(h) currently permits the specialist to decline to accept an order cancellation if such cancellation occurs within the ten minute time period prior to the opening. The Exchange proposes to decrease this ten minute period to three minutes.

According to the Exchange, the ten minute period was originally adopted when trading systems were primarily manually based and, therefore, additional time was needed to insure the effective proceeding of an order cancellation. In today's advanced electronic environment, however, a

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[4] The term "cross-margined account" is defined at section 1(f) of the Amended Agreement.

[5] *See* Securities Exchange Act Release No. 27296 (September 26, 1989), 54 FR 41195.

[6] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1) (1982).

[2] 17 CFR 240.19b–4 (1989).

reduced period of time is needed to effect a cancellation prior to the opening. The Exchange estimates that only three minutes prior to the opening will be adequate to assure that a cancellation will be effective.

After careful consideration, the Commission has determined that the proposed amendment to PSE Rule II, section 3(h) is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange. In particular, the Commission believes that the proposed rule change is consistent with the section 6(b)(5) requirement that an exchange have rules that are designed to facilitate transactions in securities and that will help to perfect the mechanism of a free and open market. In this regard, the proposed rule change will help to facilitate transactions on the PSE by allowing more time for investors to submit order cancellations. This will provide investors with greater flexibility in placing orders.

Even though the current ten minute time period may have been needed for the PSE when implemented, in light of the automation in exchange operations by the PSE since the adoption of the ten minute period the reduction in time to three minutes should be adequate to insure the effectiveness of an order cancellation.

*It is therefore ordered,* pursuant to section 19(b)(2) [3] of the Act, that the proposed rule change be, and hereby is, approved.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[4]

Dated: July 18, 1990.

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90-17346 Filed 7-24-90; 8:45 am]

BILLING CODE 8010-01-M

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**[Rel. No. 34-28221; File No. SR-PSE-90-23]**

## Self-Regulatory Organizations; Pacific Stock Exchange, Inc.; Order Approving Proposed Rule Change Relating to the Membership Committee Composition

On May 29, 1990, the Pacific Stock Exchange, Inc. ("PSE" or "Exchange") submitted to the Securities and Exchange Commission ("Commission"), pursuant to section 19(b)(1) of the Securities Exchange Act of 1934 ("Act") [1] and Rule 19b-4 thereunder,[2] a proposed rule change to amend PSE Rule XXII, section 11(c) to change the required composition of its Membership Committee.

The proposed rule change was noticed in Securities Exchange Act Release No. 28089 (June 4, 1990), 55 FR 23622 (June 11, 1990). No comments were received on the proposal.

Approximately nine members comprise the current PSE Membership Committee.[3] PSE Rule XXII, section 11(c) currently requires that the Membership Committeee must be comprised of at least three Governors, with at least one Governor from both the Option and Equity Floors, and must also be representative of the upstairs population. The Exchange proposes to reduce the required number of Governors from three to two, while requiring that only one of the two Governors be a floor Governor.

The proposed rule change reflects the Exchange's difficulty in satisfactorily meeting the requirements of current section 11(c). The Exchange attributes this difficulty to the fact that many of the Equity and Options Governors are involved in other various committees and activities of the PSE. Consequently, the time restraints experienced by these Governors, in turn, inhibit the Exchange's ability to maintain the requisite number of Governors needed to serve on the Membership Committee. According to the Exchange, this administrative problem most likely will recur in the future, and, therefore, a decrease in the number of Governors required to comprise the Membership Committee is warranted. The Exchange contends that the proposal will give the PSE additional flexibility, while maintaining Governor participation on the Membership Committee.

The Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange, and, in particular, the requirements of section 6(b)(3) of the Act.[4] In this regard, the proposed rule change upholds the section 6(b)(3) requirement that the rules of the exchange assure a fair representation of its members in the administration of its affairs. By requiring that the Membership Committee be comprised of at least two Governors, one of which is a floor Governor, the Exchange is assured of maintaining senior, experienced professionals on its Membership Committee. Moreover, by continuing to require that the Membership Committee be representative of both Governors and the upstairs population, the proposal should help to guard against any potential for unfair discrimination against broker-dealers that apply for membership in the Exchange or against individual members or member firms. At the same time, the proposal should enhance the administration of the Membership Committee by increasing the number of non-Governors that would comprise the Committee.

*It is therefore ordered,* pursuant to section 19(b)(2) of the Act,[5] that the proposed rule change is approved.[6]

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.

Dated: July 18, 1990.

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90-17347 Filed 7-24-90; 8:45 am]

BILLING CODE 8010-01-M

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**[Rel. No. IC-17601; 812-6015]**

## Dreyfus Ohio Municipal Money Market Fund, Inc.; Application

July 19, 1990.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of Application for Deregulation under the Investment Company Act of 1940 ("1940 Act").

**APPLICANT:** Dreyfus Ohio Municipal Money Market Fund, Inc.

**RELEVANT 1940 ACT SECTION:** Section 8(f).

**SUMMARY OF APPLICATION:** Applicant seeks an order declaring that it has ceased to be an investment company under the 1940 Act.

**FILING DATE:** The application on Form N-8F was filed on July 5, 1990.

**HEARING OR NOTIFICATION OF HEARING:** An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on August 14, 1990, and should be accompanied by proof of service on the

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[1] 15 U.S.C. 78s(b)(2) (1982).

[2] 18 CFR 200.30-3(a)(12) (1989).

[1] 15 U.S.C. 78s(b)(1) (1982).

[2] 17 CFR 240.19b-4 (1989).

[3] Pursuant to PSE Rule XXII, section 11(b), the duties of the Membership Committee include reviewing the membership rules, requirements, fees and policies, and recommending changes to the Board where appropriate. In addition, section 11(d) grants to the Membership Committee jurisdiction over admission to membership in the Exchange.

[4] 15 U.S.C. 78f (1982).

[5] 15 U.S.C. 78s(b)(2) (1982).

[6] 17 CFR 200.30-3(a)(12) (1989).

applicant, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 Fifth Street NW., Washington, DC 20549. Applicant, 666 Old Country Road, Garden City, New York 10153.

**FOR FURTHER INFORMATION CONTACT:** Brion Thompson, Special Counsel, at (202) 272–3016, (Division of Investment Management, Office of Investment Company Regulation).

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch or by contacting the SEC's commercial copier at (800) 231–3282, (in Maryland (301) 258–4300).

**Applicant's Representations**

1. Applicant is an open-end non-diversified management investment company incorporated under the laws of the state of Maryland. On May 18, 1990, applicant filed a noification of registration on Form N–8A under the 1940 Act. On the same date, applicant filed a registration statement on Form N–1A under the 1940 Act and the Securities Act of 1933. The registration statement never became effective and was withdrawn by applicant on July 13, 1990. Applicant has never made a public offering of its securities.

2. Applicant has no shareholders, assets or liabilities. Applicant is not a party to any litigation or administrative proceeding. Applicant is not engaged nor does it propose to engage in any business activities other than those necessary to wind up its affairs.

For the Commission, by the Division of Investment Management, under delegated authority.

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90–17355 Filed 7–24–90; 8:45 am]

BILLING CODE 8010–01–M

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**[Rel. No. IC–17602; 812–6012]**

## Dreyfus Pennsylvania Municipal Money Market Fund, Inc.; Application

July 19, 1990.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of Application Deregistration under the Investment Company Act of 1940 ("1940 Act").

**APPLICANT:** Dreyfus Pennsylvania Municipal Money Market Fund, Inc.

**RELEVANT 1940 ACT SECTION:** Section 8(f).

**SUMMARY OF APPLICATION:** Applicant seeks an order declaring that it has ceased to be an investment company under the 1940 Act.

**FILING DATE:** The application on Form N–8F was filed on July 5, 1990.

**HEARING OR NOTIFICATION OF HEARING:** An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on August 14, 1990, and should be accompanied by proof of service on the applicant, in the form of an affidavit or, by lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 5th Street, NW., Washington, DC 20549. Applicant, 666 Old Country Road, Garden City, New York 10153.

**FOR FURTHER INFORMATION CONTACT:** Brion Thompson, Special Counsel, at (202) 272–3016 (Division of Investment Management, Office of Investment Company Regulation).

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch or by contacting the SEC's commercial copier at (800) 231–3282 (in Maryland (301) 258–4300).

**Applicant's Representations**

1. Applicant is an open-end non-diversified management investment company incorporated under the laws of the state of Maryland. On May 17, 1990, applicant filed a notification of registration on Form N–8A under the 1940 Act. On the same date, applicant filed a registration statement on Form N–1A under the 1940 Act and the Securities Act of 1933. The registration statement never became effective and was withdrawn by applicant on July 13, 1990. Applicant has never made a public offering of its securities.

2. Applicant has no shareholders, assets or liabilities. Applicant is not a party to any litigation or administrative proceeding. Applicant is not engaged nor does it propose to engage in any business activities other than those necessary to wind up its affairs.

For the Commission, by the Division of Investment Management, under delegated authority.

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90–17356 Filed 7–24–90; 8:45 am]

BILLING CODE 8010–01–M

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**[Rel. No. IC–17606; 811–4156]**

## IMG Stock Accumulation Fund, Inc; Deregistration

July 19, 1990.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of application for deregistration under the Investment Company Act of 1940 ("1940 Act").

**APPLICANT:** IMG Stock Accumulation Fund, Inc.

**RELEVANT 1940 ACT SECTION:** Section 8(f) and Rule 8f–1 thereunder.

**SUMMARY OF APPLICATION:** Applicant seeks an order declaring that it has ceased to be an investment company.

**FILING DATES:** The application was filed on Form N8–F on May 4, 1990.

**HEARING OR NOTIFICATION OF HEARING:** An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving Applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on August 20, 1990, and should be accompanied by proof of service on the Applicant, in the form of an affidavit or, by lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 5th Street NW., Washington, DC 20549; on behalf of Applicants, Liberty Building, Suite 720, 418 Sixth Avenue, Des Moines, Iowa 50309.

**FOR FURTHER INFORMATION CONTACT:** Marc Duffy, Staff Attorney, (202) 272–2511 or Max Berueffy, Branch Chief, (202) 272–3016.

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch or by contacting the SEC's commercial copier

at (800) 231–3282 (in Maryland (301) 258–4300).

**Applicant's Representation**

1. Applicant is a diversified, open-end management company that incorporated under Iowa law on November 9, 1984. On November 8, 1984, Applicant registered an indefinite number of shares under the Securities Act of 1933 by filing a registration statement on Form N–1A. On this same date, Applicant filed a Notice of Registration pursuant to section 8(a) of the Act. Applicant's registration statement became effective and its initial public offering commenced on February 12, 1985.

2. At a meeting held on January 25, 1990, the Board of Directors approved a resolution calling for the sale of substantially all of Applicant's assets to Princor Capital Accumulation Fund, Inc. ("Princor") pursuant to an Agreement and Plan of Acquisition (the "Plan") and directing that the Plan be submitted to the shareholders for consideration. Proxy materials for the shareholder meeting were distributed to shareholders on or about March 19, 1990. At a meeting of shareholders held on April 18, 1990, the Plan was approved by the majority of the outstanding shares.

3. As of April 30, 1990, Applicant had 370,614.723 shares outstanding having an aggregate net asset value of $5,319,845.40 and net asset value per share of $14.354. On May 1, 1990, Applicant transferred its assets to Princor. In exchange, Princor assumed Applicant's liabilities and Applicant received shares of Princor having an aggregate net asset value equal to the aggregate net asset value of the shares of Applicant. These shares were distributed to Applicant's shareholders on May 1, 1990.

4. Expenses related to the Plan for proxy solicitation, general administration expenses and legal expenses totaled $11,000. All expenses were borne by Principal Management, Inc.

5. As of the time of filing of this application, Applicant had no shareholders, assets, or liabilities. Applicant is not a party to any litigation or administrative proceeding. Applicant is not presently engaged in, nor does it propose to engage in, any business activities other than those necessary for the winding up of its affairs. Applicant intends to file for dissolution under the laws of the State of Iowa.

For the Commission, by the Division of Investment Management, under delegated authority.

Margaret H. McFarland,

*Deputy Secretary.*

[FR Doc. 90–17353 Filed 7–24–90; 8:45 am]

BILLING CODE 8010–01–M

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**[Rel. No. IC–17603; 812–7404]**

## Standish, Ayer & Wood Investment Trust, et al.; Application

July 19, 1990.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of Application for Exemption under the Investment Company Act of 1940 ("Act").

**APPLICANTS:** Standish, Ayer & Wood Investment Trust (the "Trust") (on behalf of Standish Small Capitalization Equity Fund, formerly Standish Marathon Fund, (the "Fund"), a separate series of the Trust), Standish Small Equity Fund Limited Partnership (the "Partnership"), and Standish, Ayer & Wood, Inc. ("Standish").

**RELEVANT ACT SECTIONS:** Order requested under section 17(b) granting an exemption from the provisions of section 17(a).

**SUMMARY OF APPLICATION:** Applicants seek an order permitting a proposed reorganization between the Partnership and the Fund. The Partnership will transfer substantially all of its assets and liabilities to the Fund in exchange for shares of the Fund, which will then be distributed to the persons holding partnership interests in the Partnership (the "Partners").

**FILING DATE:** The application was filed on September 27, 1989 and amended on May 2, 1990.

**HEARING OR NOTIFICATION OF HEARING:** An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicants with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on August 15, 1990, and should be accompanied by proof of service on the applicants, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 5th Street, NW., Washington, DC 20549. Applicants, c/o Standish, Ayer & Wood, Inc., One Financial Center, Boston, MA 02111.

**FOR FURTHER INFORMATION CONTACT:** Jeremy N. Rubenstein, Branch Chief, at (202) 272–3023 (Division of Investment Management, Office of Investment Company Regulation).

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application is available for a fee at the SEC'S Public Reference Branch or by contacting the SEC's commercial copier at (800) 231–3282 (in Maryland (301) 258–4300).

*Applicants' Representations*

1. The Trust is a Massachusetts business trust, registered under the Act as an open-end diversified management investment company. The Fund is a separate series of the Trust which currently has no shareholders. The Partnership is a limited partnership organized under the laws of Massachusetts. The Partnership was formed as a private investment partnership for a small number of investors and has not registered under the Act in reliance on section 3(c)(1) of the Act. Standish will serve as the investment adviser to the Fund and is the managing general partner of the Partnership.

2. Standish purchased its interest in the Partnership at net asset value, and participates in the profits, losses, and income of the Partnership in the same manner as the other Partners.

3. Applicants propose that the Fund will acquire substantially all of the assets, consisting of securities and cash, subject to liabilities, of the Partnership in exchange for shares of the Fund. Standish will pay all of the expenses incurred in connection with the reorganization, including start up expenses of the Fund, transfer costs associated with transferring the Partnership's assets to the Fund's custodian, costs of issuing Fund shares, legal fees, accounting fees and custodial fees.

4. Applicants believe that, after the acquisition of the Partnership's assets and liabilities by the Fund, the Fund may be able to achieve certain administrative advantages and economies by virtue of simplified coordination and oversight. Also, the Partners will be able to pursue the same investment objectives and policies as they have in the past, but with a potentially larger pool of assets. Finally, the Fund will be managed by the same people as the Partnership. Standish has been the Managing Partner of the Partnership. Following the proposed

transaction, Standish will serve as the Fund's investment adviser.

5. The Partnership currently pays, and the Fund will pay, Standish an annual management fee of 0.6% of net assets. The costs and expenses of the Partnership (excluding the management fee) are borne by the Partnership up to .9% of assets; Standish pays costs exceeding .9%. The Fund will bear its own costs and expenses, except that Standish must reimburse the Fund if costs and expenses (including the management fee) exceed the lower of (i) 1.5% of average weekly net assets, or (ii) the permissible state expense limitation.

6. The proposed reorganization will be effected pursuant to an Agreement and Plan of Reorganization (the "Plan") between the Partnership and the Trust. Provisions of the reorganization are set out below:

(a) The Fund will acquire substantially all of the assets and assume all of the liabilities and obligations of the Partnership in exchange for shares equal in value of the net asset value of the assets of the Partnership acquired in the transaction. Each limited partnership interest (a "Unit") shall be convertible into 50 shares in the transaction. Securities will be valued by the Fund at their current market prices in accordance with the valuation methods adopted by the Fund.

(b) When the reorganization is effected, the Fund will have no shares outstanding other than the shares issued to the Partnership. Immediately after the reorganization, the Partnership will terminate and distribute the shares to the Partners according to the net asset values of their partnership interests on the basis of 50 shares per Unit.

(c) The Fund will establish accounts for each Partner and will register the shares issued to each Partner in his name on the books of the Fund. Each Partner has the right to withdraw all or part of his partnership interest before the consummation of the transaction by redeeming his Units. Currently, Units may be redeemed at the option of the limited partners only on permitted withdrawal dates, i.e., on the last business day of each month or at such other times as Standish may allow. Those limited partners wishing to withdraw all or part of their investment with the Fund must withdraw the amounts credited to their capital accounts in accordance with the Amended and Restated Agreement of Limited Partnership dated as of January 4, 1988, as amended (the "Partnership Agreement"). The Partnership Agreement provides that a limited partner desiring to withdraw his capital from the Partnership must give 20 days written notice to the general partners. A limited partner may redeem his entire capital account or amounts in multiples of $10,000. Standish will establish a permitted withdrawal date before the consumnation of the transaction, if necessary, in order to afford Partners an opportunity to redeem their Units. Redemption of Units is at the net asset value per Unit on the permitted withdrawal date.

(d) The consummation of the transaction will not occur unless, among other things, applicants have secured the approval of the Plan and an amendment to the Partnership Agreement by all of the general partners of the Partnership and by those limited partners whose aggregate capital accounts represent at least two-thirds of the capital accounts of all limited partners.

7. The Board of Trustees ("Board") of the Fund has considered the desirability of the reorganization from the point of view of both the Fund and the Partnership, and a majority of the Board, including a majority of the disinterested trustees, has approved the transaction and found that: (a) The reorganiztion is in the best interests of the Fund, the Partnership, and the Partners; and (b) the reorganization will not result in dilution of the financial interests of the Partners when their interests are converted to shares. Although the fund's expenses are expected to be higher than the Partnership's, the trustees concluded that the fund will be able to achieve economies of scale because the Fund is expected to grow beyond the 100 person limit which currently constraints the Partnership.

8. The Reorganization will not be affected unless and until each of the following has occurred:

a. the N–1A Registration Statement and the N–14 Registration Statement of the Fund have been declared effective;

b. the Plan and the amendment to the Partnership Agreement have been approved by the Partners of the Partnership;

c. the SEC has issued an order relating to the application; and

d. the Fund and the Partnership have received a favorable tax opinion from their counsel.

### Applicant's Legal Conclusion

1. Applicants seek an exemption pursuant to section 17(b) of the Act from the provisions of section 17(a) of the Act to the extent necessary to permit the Fund to acquire substantially all of the assets of the Partnership in exchange for Fund shares. Section 17(a), in pertinent part, prohibits an affiliated person of a registered investment company, or an affiliated person of such person, from selling to or purchasing from such investment company, any security or other property. Section 17(a) of the Act may disallow the proposed reorganization because the Partnership and Standish would be affiliated persons of the Trust under section 2(a)(3)(C) of the Act if the Partnership and the fund are considered to be under the common control of Standish, the managing general partner of the Partnership and the investment adviser of the Fund.

2. Section 17(b) authorizes the Commission to exempt any person from the provisions of section 17(a) if evidence establishes that: (a) The terms of the proposed transaction, including the consideration to be paid or received, are reasonable and fair and do not involve overreaching in the part of any person concerned, (b) the proposed transaction is consistent with the policy of the registered company concerned, and (c) the proposed transaction is consistent with the general purposes of the Act. Applicants believe that the proposed reorganization meets the standards of section 17(b).

For the Commission, by the Division of Investment Management, under delegated authority.

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90–17357 Filed 7–24–90; 8:45 am]

BILLING CODE 8010-01-M

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**[Rel. No. IC–17595; 811–3584]**

## Pantepec International, Inc.; Application

July 18, 1990.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of application for deregistration under the Investment Company Act of 1940 ("1940 Act").

**APPLICANT:** Pantepec International, Inc.

**RELEVANT 1940 ACT SECTION:** Order requested under section 8(f) of the 1940 Act.

**SUMMARY OF APPLICATION:** Applicant seeks an order under section 8(f) of the 1940 Act declaring that it has ceased to be an investment company and that its registration as such shall cease to be in effect.

**FILING DATES:** The application was filed on June 15, 1987, and amendments were filed on October 21, 1987, August 15, September 25 and October 16, 1989, and March 5 and May 11, 1990.

**HEARING OR NOTIFICATION OF HEARING:** An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving Applicant with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on August 13, 1990, and should be accompanied by proof of service on the Applicant, in the form of an affidavit or , for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 5th Street, NW., Washington, DC 20549; Applicant, c/o Robert A. Levinson, President, Pantepec International, Inc., 1768 Litchfield Turnpike, Woodbridge, CT 06525.

**FOR FURTHER INFORMATION CONTACT:** Brion R. Thompson, Special Counsel, at (202) 272–3016 or Max Berueffy, Branch Chief, at (202) 272–3016 (Division of Investment Management, Office of Investment Company Regulation).

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch or by contacting the SEC's commercial copier at (800) 231–3282 (in Maryland (301) 258–4300).

**Applicant's Representations:**

1. Applicant is publicly owned Delaware corporation, which has been engaged, itself and through predecessor companies, in the business of oil and gas exploration and production for approximately 67 years. At present, substantially all of its business consists of owning fractional interests in oil and gas royalties or leases. Applicant has 6,339,632 shares of common stock outstanding that are traded on the Boston Stock Exchange and in the-over-the-counter market.

2. Applicant registered as a closed-end, nondiversified investment company under the 1940 Act by its filing of a notification of registration with the SEC on October 12, 1982. At that time, more than 40 percent of Applicant's assets were investment securities represented by shares of stock of Magellan Petroleum Australia Limited ("MPAL"), a company engaged in oil and gas exploration activities in Australia.

3. In its Registration Statement on Form N–2, filed on March 30, 1983, Applicant stated that its primary investment objective was to engage in all aspects of exploration, production and recovery of natural resources, including, but not limited to, oil, gas, minerals and related natural energy products. Applicant further stated there that it would seek to acquire interests in drilling ventures and exploratory and concessionary interests in properties located throughout the world, and to participate in all aspects of the natural resources industry.

4. As a further investment objective, Applicant stated in the Registration Statement that it intended to decrease its holdings of investment securities in order to obtain funds to pursue its primary business objectives, and to enable it eventually to deregister as an investment company under the 1940 Act. To further this objective, Applicant stated there that is intended from time to time to sell shares of its MPAL stock with a view toward reducing the percentage of its assets invested in MPAL stock.

5. At the 1989 Annual Meeting of the stockholders of Applicant held on May 24, 1989, following a proxy contest initiated and won by Robert A. Levinson, Applicant's current President, and entire new Board of Directors was elected by majority of votes of Applicant's stockholders present in person or by proxy. (That Board of Directors was reelected at Applicant's 1990 Annual Meeting of stockholders, which was held on April 19, 1990). In Robert A. Levinson's Proxy Statement in Opposition to Management for the 1989 Annual Meeting of Stockholders, Mr. Levinson stated his belief in the necessity to consider significant changes in the structure of Applicant, including a sale of all of the remaining shares of MPAL stock owned by Applicant and exploration of the possibilities of deregistering Applicant as an investment company and merging Applicant with another operating company.

6. Pursuant to a resolution duly adopted by the then newly constituted Board on June 15, 1989, Applicant's management on August 10, 1989, sold all remaining shares of MPAL stock held by Applicant at a price of $1.95 per share Austrialian ($1.4871 United States currency). The net proceeds after commissions, amounting to $651,843.64 (United States currency), were invested in United States Treasury Bills maturing November 9, 1989, in order to preserve their value pending reinvestment. The balance was placed in an insured deposit account with a bank paying a market rate of interest and was used to pay Applicant's current expenses, including payroll and legal expenses. Thereafter, on April 26, 1990, Applicant opened an interest-bearing checking account into which it deposited the portion of its assets previously invested in Treasury Bills.

7. Applicant has no intention of investing in investment securities within the meaning of section 3(a)(3) of the 1940 Act (except to the extent that working interests in oil and gas leases might be deemed to be investment securities), but instead may utilize the proceeds from the sale of the MPAL stock for capital investment, working capital and/or to pay the costs of any possible merger that it may enter into. Applicant may pursue merger prospects with companies which may or may not be affiliated with it, but in no event will it enter into a merger in which its merger partner or the resulting company is an investment company within the meaning of the 1940 Act. Under Delaware law, any such merger would be subject to shareholder approval and, generally, to dissenters' appraisal rights.

**Applicant's Legal Analysis**

1. Applicant believes that the following information and representations demonstrate that it is not an "investment company" as defined in section 3(a) of the 1940 Act by virtue of the exclusion in section 3(c)(9) for any person "substantially all of whose business consists of owning or holding oil, gas, or other mineral royalties or leases, or fractional interests therein * * *."

a. In Amendment No. 3 to its application, dated September 25, 1989, Applicant lists all of its oil and gas properties, which consist of net working interests in oil and gas leases in the United States and Canada. As stated in Amendment No. 3, the ownership of such working interests, which are fractional interests in oil and gas leases within section 3(c)(9), represents all of Applicant's business. In addition, Applicant refers to its 1989 Annual Report which states that as of December 31, 1989, Applicant had oil reserves of approximately 26,274 barrels and natural gas reserves of approximately 743,271 MCF's. At that time, Applicant's net capitalized costs for its oil and gas business amounted to $708,132. Also, Applicant incurred $104,894 for its acquisition, exploration and development of oil and gas properties for the calendar year 1989.

b. As stated in each of its Registration Statements filed with the SEC on Form N–2, Applicant's primary investment objective is to enagage in all aspects of exploration, production and recovery of nature resources, including, but not

limited to, oil, gas, minerals, and related energy products, and to acquire interests in drilling ventures and exploratory and concessionary interests in properties throughout the world. Such interests are section 3(c)(9) interests. In addition, Applicant states that its Semi-Annual Report to Shareholders under Rule 30d–1 for the six months ended June 30, 1990, will include a specific statement that substantially all of its business consists of owning fractional interests in oil and gas royalties or leases. Applicant further states that its management is actively reviewing prospective investments in section 3(c)(9) interests and it intends to invest available cash in any such investments that its management deems appropriate, as they become available.

c. Applicant states that its officers and directors do not devote their full time or attention to Applicant's business, but in addition, engage in numerous other business activities. With respect to that time devoted to Applicant's business, Applicant states that none of its officers and directors currently spend any time, nor is it anticipated that they will in the future spend any time on behalf of Applicant in activities related to investment securities (other than oil and gas interests). Applicant further states that its officers and directors spend most of the time that they devote to Applicant evaluating potential production opportunities, resolving oil and gas drilling and production problems, formulating policies and working on financial, and other miscellaneous corporate matters relating to the operations of Applicant.

d. Applicant states that for the year ended December 31, 1989, its expenses from the costs of producing oil and gas are its only significant expenses related to either investment securities or section 3(c)(9) interests. These expenses relating to the costs of producing oil and gas (consisting of production costs, severance taxes and depletion) amounted to $218,000. All other expenses of Applicant for that peirod are administrative expenses of the company and their are no expenses relating to Applicant's previous holdings of investment securities. Applicant in 1989 realized a net gain of $561,171 on the sale of 518,908 shares of MPAL stock. Commissions paid on the sale of this stock amounted to $4,030: There was also a handling fee of $50 paid for Applicant's purchase of the Treasury Bills. Applicant asserts that the total of these amounts is insignificant when compared to the $218,000 in expenses related to production of oil and gas. Applicant further states that it has no intention of investing in investment securities in the future (except to the extent that other section 3(c)(9) interests might be deemed to be such securities) and, thus, even the minimal costs associated with such securities are not expected to recur.

e. Applicant states that it had a net operating loss of $411,693 for the year ended December 31, 1989, but that the income it did have was primarily from oil and gas sales. Gross income from oil and gas sales for that period amounted to $268,809. Interest and other income, representing primarly the difference between the discounted purchase price of Treasury Bills and their face value at maturity, was $24,311. Applicant asserts that the greatest single item of expenses creating the $411,693 operating loss consisted of the cost of producing the oil and gas, which was $218,000, and that all other expenses were administrative. While, in addition to its income from operations, Applicant realized a gain on the sale of its MPAL shares of $561,171, Applicant asserts that this was a one-time gain on the sale of an asset, rather than an item of income from operations that could be expected to recur. Applicant anticipates recognizing interest income in 1990 in the amount of approximately $13,000, representing the difference between the discounted purchase price of the Treasury Bills it previously held and their face value at maturity on April 26, 1990, when they were deposited into the checking account described in paragraph 6 above. Applicant anticipates some minimal bank interest, but no income from investment securities. Applicant expects that its future income will come from Applicant's share of the sales of the oil and gas produced by the wells in which it holds working interests, and this is expected to be significantly greater than its minimal interest income.

f. Applicant has no intention of purchasing securities other than section 3(c)(9) interests in the future and will therefore have no income from securities other than 3(c)(9) interests.

g. Applicant states that the MPAL stock was acquired as a result of Applicant's involvement in Australian exploration, development and production activities. In 1962, Magellan Petroleum company, an Australian corporation, invited a partially owned subsidiary of Applicant and a third company to form a joint venture to acquire exploration rights in Northern Territory, Australia. The joint venture acquired a permit for exploration of certain acreage in that territory. Subsequently, through a series of stock exchanges and a corporate reorganization involving its subsidiary and several other companies involved in Australian oil and gas exploration, Applicant exchanged its interests in the joint venture for a 28 percent stock interest in MPAL. Thus, Applicant asserts that the interest in the investment securities that it sold last year was acquired as a result of its exploration and development activities in Australia, and not as the result of an investment decision. Applicant further asserts that the Treasury Bills that it held until April 26, 1990, were acquired as a cash equivalent for the purpose of preserving the value of the proceeds of the sale of MPAL shares pending their reinvestment. These proceeds were transferred to a checking account and, thus, Applicant currently holds no investment securities (other than section 3(c)(9) interests).

2. A shareholder of Applicant submitted a letter on February 1, 1990, which states that Applicant has not obtained the required vote of a majority of its outstanding voting securities authorizing its deregistration as an investment company under the 1940 Act. Such an authorization is required by section 13(a)(4) of the 1940 Act where an investment company proposes to "change the nature of its business so as to cease to be an investment company." Applicant responds that shareholder approval of Applicant's deregistration is not required under section 13(a)(4) because, although Applicant has sold its investment securities, and, thus, believes that at the time of the sale it ceased to be an investment company by virtue of section 3(c)(9), it has not changed the essential nature of its business. Applicant states that it has always engaged, and will continue to engage in the business of exploration for, and production and recovery of, natural resources, including, but not limited to oil and gas, minerals and related natural energy products. Applicant further states that since it first registered under the 1940 Act its stated investment objective was also to decrease its investment securities, which consisted of the MPAL shares, so as to be able toi deregister as an investment company. Thus, Applicant concludes that any purchaser of applicant's shares has had available to it information stating Applicant's intention to operate as an oil and gas company and to decrease Applicant's investment securities so as to cease to be an investment company.

For the Commission, by the Division of Investment Management, under delegated authority.

Margaret H. McFarland,

*Deputy Secretary.*

[FR Doc. 90-17358 Filed 7-24-90; 8:45 am]

BILLING CODE 8010-01-M

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[Rel. No. IC-17600; 812-7556]

## Technology Funding Partners III, L.P., et al.; Application

July 18, 1990.

**AGENCY:** Securities and Exchange Commission ("SEC").

**ACTION:** Notice of Application for Exemption under the Investment Company Act of 1940 (the "1940 Act").

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**APPLICANTS:** Technology Funding Partners III, L.P. ("TFP III"), Technology Funding Venture Partners IV, An Aggressive Growth Fund, L.P. ("TFP IV"), Technology Funding Inc. ("TFI"), and Technology Funding Ltd. ("TFL")

**RELEVANT 1940 ACT SECTIONS:** Order requested under section 17(d) and Rule 17d-1 permitting a joint transaction which is otherwise prohibited by section 57(a)(4) and Rule 17d-1.

**SUMMARY OF APPLICATION:** TFP III and TFP IV (the "Partnerships") are affiliated persons, as defined by the 1940 Act. TFI and TFL serve as the managing general partners (the "Managing General Partners") of the Partnerships. Applicants seek an order under section 17(d) of the 1940 Act and Rule 17d-1 thereunder permitting a joint investment by the Partnerships in certain securities. Absent relief, the transaction would be prohibited by section 57(a)(4) and Rule 17d-1.

**FILING DATE:** The application was filed on July 10, 1990.

**HEARING OR NOTIFICATION OF HEARING:** An order granting the application will be issued unless the SEC orders a hearing. Interested persons may request a hearing by writing to the SEC's Secretary and serving applicants with a copy of the request, personally or by mail. Hearing requests should be received by the SEC by 5:30 p.m. on August 14, 1990, and should be accompanied by proof of service on applicants, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons may request notification of a hearing by writing to the SEC's Secretary.

**ADDRESSES:** Secretary, SEC, 450 5th Street, NW., Washington, DC 20549. Applicants, c/o Technology Funding Inc., 2000 Alameda de las Pulgas, San Mateo, California 94403.

**FOR FURTHER INFORMATION CONTACT:** Robert B. Carroll, Staff Attorney, at (202) 272-3043, or Jeremy N. Rubenstein, Branch Chief, at (202) 272-3023 (Division of Investment Management, Office of Investment Company Regulation).

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application may be obtained for a fee at the SEC's Public Reference Branch or by contacting the SEC's commercial copier at (800) 231-3282 (in Maryland (301) 258-4300).

### Applicants' Representations

1. Each of TFP III and TFP IV is a limited partnership organized under Delaware law pursuant to an Amended and Restated Limited Partnership Agreement (with respect to each, a "Partnership Agreement") that has elected to be regulated as a business development company under the 1940 Act. Each has been designed to provide individuals with the ability to participate primarily in venture capital investments in emerging companies (the "Portfolio Companies"). The investment objective of each Partnership is long-term capital appreciation from such investments and preservation of limited partner capital through risk management and active involvement with Portfolio Companies.

2. TFI is a California corporation and is registered as an investment adviser under the Investment Advisers Act of 1940 (the "Advisers Act"). TFL is a California limited partnership and is registered as an investment adviser under the Advisers Act. TFL has seven individual general partners, 24 limited partners, and two special limited partners. The seven individual general partners of TFL own 71% of the outstanding stock of TFI; the remaining stock is owned by TFI employees and outside investors.

3. TFP III and TFP IV each have five general partners, three of which are individuals. TFP III and TFP IV each have received an exemptive order from the SEC determining that each of these individual general partners (with respect to each, the "Independent General Partners") is not an "interested person" of TFP III or TFP IV or of certain other entities specified therein within the meaning of section 2(a)(19) of the 1940 Act solely by reason of being a general partner of a Partnership or a copartner of the other general partners of a Partnership. Investment Company Act Release Nos. 15764 (June 2, 1987) (TFP III) and 16626 (November 8, 1988) (TFP IV). Each Partnership's Partnership Agreement provides that, if at any time the number of Independent General Partners is less than a majority of the general partners, the general partners shall, within 90 days, designate and admit one or more Independent General Partners so as to restore the number of Independent General Partners to a majority of the general partners. The Partnerships do not and will not have common Independent General Partners.

4. In June 1990, TFP IV purchased $2,000,000 worth of Series C Preferred Stock of Systemix, Inc. ("Systemix"), an unaffiliated corporation, at a price of $79.44 per share. Systemix develops diagnostics and therapeutics for immune, antiviral, anti-inflammatory diseases and disorders using a core technology based on a proprietary animal model known as the SCID-hu Mouse.

5. As of the date of the application (and at the time TFP IV's investment was made), the Managing General Partners contemplated that if the order requested hereby is granted, TFP III will be offered the opportunity to purchase $1,000,000 worth of Systemix Series C Preferred Stock at a price of $79.44 per share. Upon consummation of such purchase, TFP III would become a stockholder of Systemix for the same price per share and subject to the same terms and conditions, except for the number of shares acquired, as TFP IV. The proposed investment ($1,000,000) represents the maximum investment that TFP III can make at this time.

6. Applicatants propose to allow TFP III and TFP IV to purchase the securities of Systemix jointly with one another in a transaction which would otherwise be prohibited by section 57(a)(4) and Rule 17d-1 under the 1940 Act (the "co-investment transaction"). The co-investment transaction satisfies the investment objectives of each Partnership.

### Applicant's Legal Analysis and Conclusions

1. Section 17(d) of the 1940 Act and Rule 17d-1 thereunder provide, among other things, that it shall be unlawful for an affiliated person of an investment company, or an affiliated person of such person, acting as principal, to participate in, or effect any transaction in connection with, any joint enterprise or other joint arrangement in which any such investment company, or a company controlled by such investment company, is a participant unless an application regarding such joint enterprise or arrangement has been filed with an exemptive order issued by the SEC.

Section 57(a)(4) of the 1940 Act applies similar prohibitions to affiliated persons of a business development company, but section 57(i) permits a business development company to take advantage of rules adopted under section 17(d). In reviewing applications filed pursuant to Rule 17d–1, the SEC considers whether the participation of such investment company (or business development company) or controlled company in such joint enterprise or joint arrangement is consistent with the provisions, policies, and purposes of the 1940 Act and the extent to which such participation is on a basis different from or less advantageous than that of other participants.

2. Applicants submit that the request for the order permitting the Partnerships to participate in the co-investment transaction is supported by a number of factors. First, the rationale for establishing TFP III and TFP IV has been, and will be, to provide access to venture capital investments not generally available to individual investors who meet the Partnerships' respective suitability standards. Second, applicants believe that the continuing substantive obligations and fiduciary duties imposed on the Managing General Partners and the Independent General Partners of each Partnership provide significant protections for limited partners. The Independent General Partners of TFP III will receive a written recommendation from its Managing General Partners in support of the co-investment transaction and will have the right, in their sole discretion, to determine not to participate in the co-investment transaction. In addition, the Managing General Partners will have no financial interest in the co-investment transaction other than their equity interests in the Partnerships and their management fee and expense reimbursement arrangements with the Parternships. Further, the terms and conditions of the co-investment transaction will be identical for each Partnership, except that TFP III will invest one-half the amount invested by TFP IV.

3. Applicants submit that the absence of the potential for overreaching, together with the conditions set forth below, provide an effective control on potential conflicts of interest and make participation by each Partnership in the co-investment transaction consistent with the protection of investors and the provisions, policies, and purposes of the 1940 Act.

**Applicants' Conditions**

Applicants agree that any relief granted will be subject to the following conditions:

1. Before the co-investment transaction will be effected, the Managing General Partners will make a written investment presentation respecting the proposed co-investment transaction to the General Partners of TFP III. The written presentation will focus on the nature of Systemix's operations and objectives and on the terms and conditions of the commitment. The presentation will be based on such other considerations and circumstances as the Managing General Partners deem appropriate, including, without limitation, the consistency of the proposed co-investment transaction with the investment objectives of TFP III. In this context, "investment objectives" of TFP III include its policies recited in filings made with the SEC under the Securities Act of 1933, the Securities Exchange Act of 1934 (the "1934 Act"), its registration statement under the 1934 Act, and its periodic reports to its limited partners. TFP III will make its own decision and will have the right to decide not to participate in the co-investment transaction.

2. There will be no consideration paid to the Managing General Partners or affiliated persons of such affiliated persons, directly or indirectly, including without limitation any type of brokerage commission, in connection with the co-investment transaction. However, the Managing General Partners will continue to receive amounts under their normal compensation and reimbursement arrangements with the Partnerships (as described in the application) and will participate indirectly in the co-investment transaction through their existing equity interests in the Partnerships.

3. A majority of the Independent General Partners, all of whom are (and will be) natural persons, as well as a majority of all of the general partners as a group, of TFP III must each conclude, as to TFP III, that as presented to them by the Managing General Partners, the terms of the proposed co-investment transaction are reasonable and fair and do not involve overreaching of TFP III or its limited partners on the part of any person concerned. The Independent General Partners will, for purposes of reviewing each such recommendation of the Managing General Partners, request such additional information from the Managing General Partners as they deem necessary to the exercise of their reasonable business judgment, and they will also employ such experts, including lawyers and accountants, as they deem appropriate to the reasonable exercise of this oversight function.

4. If TFP III decides to participate, the co-investment transaction will thereafter be effected for each Partnership at the same price and on the same terms and conditions (except as to the number of shares acquired), and the Systemix securities purchased by TFP III and TFP IV will consist of the same class of securities, including the same registration rights (if any) and other rights related thereto, and will be purchased at the same price per share. If one Partnership elects to sell, exchange, or otherwise dispose of an interest in the Systemix securities, notice of the proposed disposition will be given to the other Partnership at the earliest practical time. The other Partnership will participate in such disposition at the same time for the same unit consideration and in amounts proportional to its respective holdings of such securities, unless a majority of the other Partnership's general partners and a majority of the Independent General Partners determine, after considering any recommendations by the Managing General Partners, to not participate in the sale. The other Partnership may elect to sell an amount that is not in proportion to its respective holdings of such securities upon approval by the majority of its general partners and a majority of its Independent General Partners.

5. A decision by TFP III not to participate in the co-investment transaction or a decision by either Partership not to sell, exchange, or otherwise dispose of the co-investment in the same manner and at the same time as the other Partnership shall include a finding that such decision is fair and reasonable to TFP III or the non-participating Partnership, as the case may be, and not the result of overreaching of TFP III or the non-participating Partnership, as the case may be, or its limited partners by the Managing General Partners.

6. If a Partnership elects to make a "follow-on" investment (i.e., an additional investment in Systemix securities) or exercise warrants or other rights of the Systemix securities, notice of such transaction will be provided to the other Partnership at the earliest practicable time. All "follow-on" investments will be treated in the same manner as the initial co-investment.

7. Each Partnership will maintain records of any meetings at which matters related to the SEC order are discussed in the manner prescribed in

section 57(f)(3) of the 1940 Act and will otherwise comply with section 57(h) of the 1940 Act. All records referred to or required under these conditions will be available for inspection by the Commission.

8. Neither the Managing General Partners (nor affiliated persons of such affiliated persons) will participate directly or indirectly in the co-investment transaction effected by Partnership pursuant to the SEC order absent an amendment or unless a separate exemption is otherwise available or obtained thereunder. For this purpose, the term "participate" shall not include either the Managing General Partners' existing equity interests in the Partnerships or their existing management fee or reimbursement arrangements with respect to them.

For the Commission, by the Division of Investment Management, under delegated authority.

**Margaret H. McFarland,**

*Deputy Secretary.*

[FR Doc. 90-17359 Filed 7-24-90; 8:45 am]

BILLING CODE 8010-01-M

## DEPARTMENT OF STATE

**[Public Notice 1233]**

### State Department Performance Review Board Members

In accordance with section 4314 (c)(4) of the Civil Service Reform Act of 1978 (Pub. L. 95-454), the Executive Resources Board of the Department of State has appointed the following members to the State Department Performance Review Board Register.

John P. Boright, Director, Office of Nuclear Technology and Safeguards, Bureau of Oceans and International Environmental and Scientific Affairs

Richard Curl, Director, Office of Intelligence Resources, Bureau of Intelligence and Research

Alan Kreczko, Deputy Legal Advisor, Office of the Legal Advisor

Michael J. Matheson, Principal Deputy Legal Advisor, Office of the Legal Advisory (Alternate)

Michele E. Truitt, Director, Office of Consular Fraud Prevention Programs, Bureau of Consular Affairs

Kenneth Hunter, Deputy Assistant Secretary for Personnel, Bureau of Personnel

Gloria Gaston-Shapiro, Public Member

**Edward J. Perkins,**

*Director General of the Foreign Service and Director of Personnel.*

[FR Doc. 90-17311 Filed 7-24-90; 8:45 am]

BILLING CODE 4710-15-M

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

### Noise Exposure Map; Receipt of Noise Compatibility Program and Request for Review; Bates Field Airport, Mobile, AL

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice.

**SUMMARY:** The Federal Aviation Administration (FAA) announces its determination that the noise exposure maps submitted by the Mobile Airport Authority for Bates Field, under the provisions of Title I of the Aviation Safety and Noise Abatement Act of 1979 (Pub. L. 96-193) and 14 CFR part 150 are in compliance with applicable requirements. The FAA also announces that it is reviewing a proposed noise compatibility program that was submitted for Bates Field under 14 CFR part 150 in conjunction with the noise exposure map, and that this program will be approved or disapproved on or before January 8, 1991.

**EFFECTIVE DATE:** The effective date of the FAA's determination on the noise exposure maps and of the start of its review of the associated noise compatibility program is July 12, 1990. The public comment period ends September 10, 1990.

**FOR FURTHER INFORMATION CONTACT:** Elton E. Jay, Civil Engineer, Jackson Airports District Office, 120 North Hangar Drive, Suite B, Jackson, Mississippi 39208-2306; telephone no. (601) 965-4628. Comments on the proposed noise compatibility program should also be submitted to this address.

**SUPPLEMENTARY INFORMATION:** This notice announces that the FAA finds that the noise exposure maps submitted for Bates Field are in compliance with applicable requirements of 14 CFR part 150, effective July 12, 1990. Further, FAA is reviewing a proposed noise compatibility program for that airport which will be approved or disapproved on or before January 8, 1991. This notice also announces the availability of this program for public review and comment.

Under section 103 of title I of the Aviation Safety and Noise Abatement Act of 1979 (hereinafter referred to as "the Act"), an airport operator may submit to the FAA noise exposure maps which meet applicable regulations and which depict noncompatible land uses as of the date of submission of such maps, a description of projected aircraft operations, and the ways in which such operations will affect such maps. The Act requires such maps to be developed in consultation with interested and affected parties in the local community, government agencies and persons using the airport.

An airport operator who has submitted noise exposure maps that are found by FAA to be in compliance with the requirements of Federal Aviation Regulations (FAR) 14 CFR part 150, promulgated pursuant to title I of the Act, may submit a noise compatibility program for FAA approval which sets forth the measures the operator has taken or proposes for the reduction of existing noncompatible uses and for the prevention of the introduction of additional noncompatible uses.

The Mobile Airport Authority submitted to the FAA on July 9, 1990, noise exposure maps, descriptions and other documentation which were produced during the period from June 14, 1988, to date. It was requested that the FAA review this material as the noise exposure maps, as described in section 103(a)(1) of the Act, and that the noise mitigation measures, to be implemented jointly by the airport and the surrounding communities, be approved as a noise compatibility program under section 104(b) of the Act.

The FAA has completed its review of the noise exposure maps and related descriptions submitted by the Mobile Airport Authority. The specific maps under consideration are figures 12-1 and 12-2 in Volume 1: Noise Exposure Map Report of the FAR 14 CFR part 150 Airport Compatibility Study for the Bates Field Airport. The FAA has determined that these maps for Bates Field are in compliance with applicable requirements. This determination is effective on July 12, 1990. FAA's determination on an airport operator's noise exposure maps is limited to finding that the maps were developed in accordance with the procedure contained in appendix A of FAR 14 CFR part 150. Such determination does not constitute approval of the applicant's data, information or plans, or a commitment to approve a noise compatibility program or to fund the impementation of that program.

If questions arise concerning the precise relationship of specific properties to noise exposure contours depicted on a noise exposure map submitted under section 103 of the Act, it should be noted that the FAA is not involved in any way in determining the relative locations of specific properties with regard to the depicted noise contours, or in interpreting the noise exposure maps to resolve questions concerning, for example, which properties should be covered by the

provisions of section 107 of the Act. These functions are inseparable from the ultimate land-use control and planning responsibilities of local government. These local responsibilities are not changed in any way under 14 CFR part 150 or through FAA's review of noise exposure maps. Therefore, the responsibility for the detailed overlaying of noise exposure contours onto the map depicting properties on the surface rests exclusively with the airport operator which submitted those maps, or with those public agencies and planning agencies with which consultation is required under section 103 of the Act. The FAA has relied on the certification by the airport operator, under § 150.21 of FAR 14 CFR part 150, that the statutorily required consultation has been accomplished.

The FAA has formally received the noise compatibility program for Bates Field, also effective on July 12, 1990. Preliminary review of the submitted material indicates that it conforms to the requirements for the submittal of noise compatibility programs, but that further review will be necessary prior to approval or disapproval of the program. The formal review period, limited by law to a maximum of 180 days, will be completed on or before January 8, 1991.

The FAA's detailed evaluation will be conducted under the provisions of 14 CFR part 150, § 150.33. The primary considerations in the evaluation process are whether the proposed measures may reduce the level of aviation safety, create an undue burden on interstate or foreign commerce, or be reasonably consistent with obtaining the goal of reducing existing noncompatible land uses and preventing the introduction of additional noncompatible land uses.

Interested persons are invited to comment on the proposed program with specific reference to these factors. All comments, other than those properly addressed to local land-use authorities, will be considered by the FAA to the extent practicable. Copies of the noise exposure maps, the FAA's evaluation of the maps and the proposed noise compatibility program are available for examination at the following locations:

Airports District Office, 120 North Hangar Drive, Suite B, Jackson, Mississippi 39208–2306

Mobile Airport Authority, Post Office Box 88004, Mobile, Alabama 36608–0004.

Questions may be directed to the individual named above under the heading, **FOR FURTHER INFORMATION CONTACT.**

Issued in Jackson, Mississippi, July 12, 1990.

**Charles E. Blair,**

*Manager, Airports District Office.*

[FR Doc. 90–17320 Filed 7–24–90; 8:45 am]

BILLING CODE 4910–13–M

## Approval of Noise Compatibility Program; Little Rock Regional Airport, Little Rock, AR

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice.

**SUMMARY:** The Federal Aviation Administration (FAA) announces its findings on the noise compatibility program submitted by the city of Little Rock, Arkansas under the provisions of title I of the Aviation Safety and Noise Abatement Act of 1979 (Pub. L. 96–193) and 14 CFR part 150. These findings are made in recognition of the description of Federal and nonfederal responsibilities in Senate Report No. 96–52 (1980). On July 28, 1989, the FAA determined that the noise exposure maps submitted by the city of Little Rock, Arkansas under part 150 were in compliance with applicable requirements. On January 22, 1990, the Administrator approved the noise compatibility program. All of the recommendations of the program were approved.

**EFFECTIVE DATE:** The effective date of the FAA's approval of the Little Rock Regional Airport noise compatibility program is January 22, 1990.

**FOR FURTHER INFORMATION CONTACT:** Donald C. Harris, Department of Transportation, Federal Aviation Administration, 4400 Blue Mound Road, Fort Worth, Texas, 76193–0612, (817) 624–5609. Documents reflecting this FAA action may be reviewed at this same location.

**SUPPLEMENTARY INFORMATION:** This notice announces that the FAA has given its overall approval to the noise compatibility program for Little Rock Regional Airport, effective January 22, 1990.

Under section 104(a) of the Aviation Safety and Noise Abatement Act of 1979 (hereinafter referred to as "the Act"), an airport operator who has previously submitted a noise exposure map may submit to the FAA a noise compatibility program which sets forth the measures taken or proposed by the airport operator for the reduction of existing noncompatible land uses within the area covered by the noise exposure maps. The Act requires such programs to be developed in consultation with interested and affected parties including local communities, government agencies, airport users, and FAA personnel.

Each airport noise compatibility program developed in accordance with Federal Aviation Regulations (FAR) 14 CFR part 150 is a local program, not a Federal program. The FAA does not substitute its judgment for that of the airport proprietor with respect to which measures should be recommended for action. The FAA's approval or disapproval of FAR part 150 program recommendations is measured according to the standards expressed in 14 CFR part 150 and the Act and is limited to the following determinations:

a. The noise compatibility program was developed in accordance with the provisions and procedures of FAR part 150;

b. Program measures are reasonably consistent with achieving the goals of reducing existing noncompatible land uses around the airport and preventing the introduction of additional noncompatible land uses;

c. Program measures would not create an undue burden on interstate or foreign commerce, unjustly discriminate against types or classes of aeronautical uses, violate the terms of airport grant agreements, or intrude into areas preempted by the Federal Government; and

d. Program measures relating to the use of flight procedures can be implemented within the period covered by the program without derogating safety, adversely affecting the efficient use and management of the navigable airspace and air traffic control systems, or adversely affecting other powers and responsibilities of the Administrator prescribed by law.

Specific limitations with respect to the FAA's approval of an airport noise compatibility program are delineated in FAR part 150, § 150.5. Approval is not a determination concerning the acceptability of land uses under Federal, state, or local law. Approval does not by itself constitute an FAA implementing action. A request for Federal action or approval to implement specific noise compatibility measures may be required, and an FAA decision on the request may require an environmental assessment of the proposed action. Approval does not constitute a commitment by the FAA to financially assist in the implementation of the program nor a determination that all measures covered by the program are eligible for grant-in-aid funding from the FAA. Where Federal funding is sought, requests for project grants must be submitted to the FAA Airports Division Office in Fort Worth, Texas.

The city of Little Rock, Arkansas submitted to the FAA on December 8, 1988, the noise exposure maps, descriptions, and other documentation produced during the noise compatibility planning study conducted from July 14, 1986 through March 3, 1989. The Little Rock Regional Airport noise exposure maps were determined by the FAA to be in compliance with applicable requirements on July 24, 1989. Notice of this determination was published in the **Federal Register** on August 14, 1989.

The Little Rock Regional Airport study contains a proposed noise compatibility program comprised of actions designed for phased implementation by airport management and adjacent jurisdictions from the date of study completion to (or beyond) the year 1992. It was requested that the FAA evaluate and approve this material as a noise compatibility program as described in section 104(b) of the Act. The FAA began its review of the program on July 28, 1989, and was required by a provision of the Act to approve or disapprove the program within 180 days (other than the use of new flight procedures for noise control). Failure to approve or disapprove such program within the 180-day period shall be deemed to be an approval of such program.

The submitted program contained 19 proposed actions for noise mitigation (on and/or off) the airport. The FAA completed its review and determined that the procedural and substantive requirements of the Act and FAR part 150 have been satisfied. The overall program, therefore, was approved by the Administrator effective January 22, 1990.

Outright approval was granted for all of the specific program elements. Seven of the elements were noise abatement measures, nine other elements were land use management measures and the final three elements addressed continuing program review and evaluation.

These determinations are set forth in detail in a Record of Approval endorsed by the Administrator on January 22, 1990. The Record of Approval, as well as other evaluation materials and the documents comprising the submittal, are available at the FAA office listed above and at the administrative offices of the Little Rock Regional Airport.

Issued in Fort Worth, Texas, June 29, 1990.

**Hugh W. Lyon,**

*Assistant Manager, Airports Division.*

[FR Doc. 90-17321 Filed 7-24-90; 8:45 am]

BILLING CODE 4910-13-M

## Noise Exposure Map; Receipt of Noise Compatibility Program and Request for Review, Sikorski Memorial Airport, Bridgeport, CT

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice.

**SUMMARY:** The Federal Aviation Administration (FAA) announces its determination that the noise exposure map submitted by Sikorsky Memorial Airport, Bridgeport, Connecticut for Sikorsky Memorial Airport, under the provisions of title I of the Aviation Safety and Noise Abatement Act of 1979 (Pub. L. 96-193) and 14 CFR part 150, is in compliance with applicable requirements. The FAA also announces that it is reviewing a proposed noise compatibility program that was submitted for Sikorski Memorial Airport under part 150 in conjunction with the noise exposure map, and that this program will be approved or disapproved on or before December 26, 1990.

**EFFECTIVE DATE:** The effective date of the FAA's determination on the noise exposure map and of the start of its review of the associated noise compatibility program is June 29, 1990. The public comment period ends on August 28, 1990.

**FOR FURTHER INFORMATION CONTACT:** John Silva, Federal Aviation Administration, New England Region, Airports Division, ANE-602, 12 New England Executive Park, Burlington, Massachusetts 01803.

Comments on the proposed noise compatibility program should also be submitted to the above office.

**SUPPLEMENTARY INFORMATION:** This notice announces that the FAA finds that the noise exposure map submitted for Sikorski Memorial Airport is in compliance with applicable requirements of 14 CFR part 150, effective June 29, 1990. Further, FAA is reviewing a proposed noise compatibility program for that airport which will be approved or disapproved on or before December 26, 1990. This notice also announces the availability of this program for public review and comment.

Under section 103 of title I of the Aviation Safety and Noise Abatement Act of 1979 (hereinafter referred to as "the Act"), an airport operator may submit to the FAA a noise exposure map which meets applicable regulations and which depicts noncompatible land uses as of the date of submission of such map, a description of projected aircraft operations, and the ways in which such operations will affect such map. The Act requires such map to be developed in consultation with interested and affected parties in the local community, government agencies, and persons using the airport. An airport operator who has submitted a noise exposure map that is found by FAA to be in compliance with the requirements of Federal Aviation Regulation (FAR) 14 CFR part 150, promulgated pursuant to title I of the Act, may submit a noise compatibility program for FAA approval which sets forth the measures the operator has taken, or proposes, for the reduction of existing noncompatible uses and for the prevention of the introduction of additional noncompatible uses.

The Sikorsky Memorial Airport submitted to the FAA on December 21, 1988, a noise exposure map, descriptions, and other documentation which were produced during the Airport Nose Compatibility Planning (14 CFR part 150) Study at Sikorsky Memorial Airport from September 1987 to November 1989. It was requested that the FAA review this material as the noise exposure map, as described in section 103(a)(1) of the Act, and that the noise mitigation measures, to be implemented jointly by the airport and surrounding communities, be approved as a noise compatibility program under section 104(b) of the Act.

The FAA has completed its review of the noise exposure map and related descriptions submitted by Sikorski Memorial Airport. The specific map under consideration was "Figure 1.1, Noise Exposure Map," along with the supporting documentation in the Noise Exposure Map Volume of the 14 CFR part 150 Study. The FAA has determined that the map for Sikorsky Memorial Airport is in compliance with applicable requirements. This determination is effective on June 29, 1990. FAA's determination on an airport operator's noise exposure map is limited to a finding that the map was developed in accordance with the procedures contained in appendix A of FAR 14 CFR part 150. Such determination does not constitute approval of the applicant's data, information, or plans, or a commitment to approve a noise compatibility program or to fund the implementation of that program.

If questions arise concerning the precise relationship of specific properties to noise expose contours depicted on a noise exposure map submitted under section 103 of the Act, it should be noted that the FAA is not involved in any way in determining the relative locations of specific properties with regard to the depicted noise

contours, or in interpreting the noise exposure map to resolve questions concerning, for example; which properties should be covered by the provisions of section 107 of the Act. These functions are inseperable from the ultimate land use control and planning responsilities of local government. These local responsibilities are not changed in any way under 14 CFR part 150 or through FAA's review of a noise exposure map. Therefore, the responsibility for the detailed overlaying of noise exposure contours onto the map depicting properites on the surface rests exclusively with the airport operator which submitted the map, or with those public agencies and planning agencies with which consultation is required under section 103 of the Act. The FAA has relied on the certification by the airport operator, under § 150.21 or FAR 14 CFR part 150, that the statutorily required consultation has been accomplished.

The FAA has formally received the noise compatibility program for Sikorsky Memorial Airport, also effective on June 29, 1990. Preliminary review of the submitted material indicates that it conforms to the requirements for the submittal of noise compatibility programs, but that further review will be necesssary prior to approval or disapproval of the program. The formal review period, limited by law to a maximum of 180 days, will be completed on or before December 26, 1990.

The FAA's detailed evaluation will be conducted under the provisions of 14 CFR part 150, § 150.33. The primary considerations in the evaluation process are whether the proposed measures may reduce the level of aviation safety, create an undue burden on interstate or foreign commerce, or be reasonably consistent with obtaining the goal of reducing existing noncompatible land uses and preventing the introduction of additional noncompatible land uses.

Interested persons are invited to comment on the proposed program with specific reference to these factors. All comments, other than those properly addressed to local land use authorities, will be considered by the FAA to the extent practicable. Copies of the noise exposure map, the FAA's evaluation of the map, and the proposed noise compatibility program are available for examination at the following locations:

Sikorsky Memorial Airport, Airport Manager's Office, 1000 Great Meadow Road, Stratford, Connecticut 06497

Federal Aviation Administration, New England Region, Airports Division, ANE–602, 12 New England Executive Park, Burlington, MA 01803.

Questions may be directed by the individual named above under the heading: **FOR FURTHER INFORMATION CONTACT.**

Issued in Burlington, Massachusetts on June 29, 1990.

**Vincent A. Scarano,**

*Manager, Airports Division, New England Region.*

[FR Doc. 90–17322 Filed 7–24–90; 8:45 am]

BILLING CODE 4910–13–M

## Noise Exposure Map; Monroe Regional Airport, Monroe, LA

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice.

**SUMMARY:** The Federal Aviation Administration (FAA) announces its determination that the noise exposure maps submitted by the city of Monroe, Louisiana for Monroe Regional Airport under the provisions of title I of the Aviation Safety and Noise Abatement Act of 1979 (Pub. L. 96–193) and 14 CFR part 150 are in compliance with applicable requirements.

**EFFECTIVE DATE:** The effective date of the FAA's determination on the noise exposure maps is July 13, 1990.

**FOR FURTHER INFORMATION CONTACT:** Dean A. McMath, Department of Transportation, Federal Aviation Administration, Fort Worth, Texas 76193–0612, (817) 624–5594.

**SUPPLEMENTARY INFORMATION:** This notice announces that the FAA finds that the noise exposure maps submitted for Monroe Regional Airport are in compliance with applicable requirements of 14 CFR part 150, effective July 13, 1990. Under section 103 of title I of the Aviation Safety and Noise Abatement Act of 1979 (hereinafter referred to as "the Act"), an airport operator may submit to the FAA noise exposure maps which meet applicable regulations and which depict noncompatible land uses as of the date of submission of such maps, a description of projected aircraft operations, and the ways in which such operations will affect such maps. The Act requires such maps to be developed in consultation with interested and affected parties in the local community, government agencies, and persons using the airport.

An airport operator who has submitted noise exposure maps that are found by the FAA to be in compliance with the requirements of Federal Aviation Regulations (FAR), 14 CFR part 150, promulgated pursuant to title I of the Act, may submit a noise compatibility program for FAA approval which sets forth the measures the operator has taken or proposes for the reduction of existing incompatible uses and for the prevention of the introduction of additional noncompatible uses.

The city of Monroe, Louisiana submitted to the FAA on June 27, 1990, noise exposure maps, descriptions and other documentation which were produced during the development of the FAR, 14 CFR part 150 Noise Compatibility Study. It was requested that the FAA review this material as the noise exposure maps, as described in section 103(a)(1) of the Act.

The FAA has completed its review of the noise exposure maps and related descriptions submitted by the city of Monroe, Louisiana. The specific maps under consideration are Noise Exposure Map, 1988 Existing Conditions and Noise Exposure Map, 1993 Existing Conditions, both found in Part One of the submission.

The FAA has determined that these maps for Monroe Regional Airport are in compliance with applicable requirements. This determination is effective on July 13, 1990. FAA's determination on an airport operator's noise exposure maps is limited to a finding that the maps were developed in accordance with the procedures contained in appendix A of FAR, 14 CFR part 150. Such determination does not constitute approval of the applicant's data, information, or plans, or a commitment to approve a noise compatibility program or to fund the implementation of that program.

If questions arise concerning the precise relationship of specific properties to noise exposure contours depicted on a noise exposure map submitted under section 103 of the Act, it should be noted that the FAA is not involved in any way in determining the relative locations of specific properties with regard to the depicted noise contours, or in interpreting the noise exposure maps to resolve questions concerning, for example, which properties should be covered by the provisions of section 107 of the Act. These functions are inseparable from the ultimate land use control and planning responsibilities of local government. These local responsibilities are not changed in any way under 14 CFR part 150 or through FAA's review of noise exposure maps. Therefore, the responsibility for the detailed overlaying of noise exposure contours onto the map

depicting properties on the surface rests exclusively with the airport operator which submitted those maps, or with those public agencies and planning agencies with which consultation is required under section 103 of the Act. The FAA has relied on the certification by the airport operator, under § 105.21 of FAR part 150, that the statutorily required consultation has been accomplished.

Copies of the noise exposure maps and the FAA's evaluation of the maps, are available for examination at the following locations:

Federal Aviation Administration, Airports Division, ASW–600, Fort Worth, Texas 76193–0600.

Airport Managers Office, Terminal Building, Monroe Regional Airport, Monroe, Louisiana.

Planning and Urban Development Department, 2d floor, City Hall, Monroe, Louisiana.

Questions may be directed to the individual named above under the heading, **FOR FURTHER INFORMATION CONTACT.**

Issued in Fort Worth Texas, July 13, 1990.

**John M. Dempsey,**

*Manager, Airports Division.*

[FR Doc. 90–17323 Filed 7–24–90; 8:45 am]

BILLING CODE 4910–13–M

## Flight Service Station at Chisholm-Hibbing Airport, Hibbing, MN

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of closing.

**SUMMARY:** Notice is hereby given that on or about August 14, 1990, the Flight Service Station (FSS) at Hibbing, Minnesota will be permanently closed. Services to the aviation public in the Hibbing flight plan area, formerly provided by Hibbing, are being provided by the Automated Flight Service Station (AFSS) at Princeton, Minnesota. This information will be reflected in the FAA organization statement the next time it is reissued.

**Authority:** Sec. 313 (a), 72 Stat. 752; 49 U.S.C. 1354.

**Edward J. Phillips,**

*Regional Administrator, Great Lakes Region.*

[FR Doc. 90–17327 Filed 7–24–90; 8:45 am]

BILLING CODE 4910–13–M

## Flight Service Station at Quincy Municipal Airport, Quincy, IL

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of closing.

**SUMMARY:** Notice is hereby given that on or about July 19, 1990, the Flight Service Station (FSS) at Quincy, Illinois will be permanently closed. Services to the aviation public in the Quincy flight plan area, formerly provided by Quincy FSS, are being provided by the Automated Flight Service Stations (AFSS's) at Kankakee, Illinois and St. Louis, Missouri. This information will be reflected in the FAA organization statement the next time it is reissued.

**Authority:** Sec. 313(a), 72 Stat. 752; 49 U.S.C. 1354.

**Edward J. Phillips,**

*Regional Administrator, Great Lakes Region.*

[FR Doc. 90–17326 Filed 7–24–90; 8:45 am]

BILLING CODE 4910–13–M

## Office of Hearings

**[Docket No. 46760]**

## Discovery Airways, Inc. and Mr. Philip Ho; Postponement of Prehearing Conference

The prehearing conference in this proceeding scheduled to begin August 1, 1990, at 10 a.m., in room 5332, 400–7th Street, SW., Washington, DC 20590 is postponed until further order.

Dated at Washington, DC, July 19, 1990.

**Ronnie A. Yoder,**

*Administrative Law Judge.*

[FR Doc. 90–17296 Filed 7–24–90; 8:45 am]

BILLING CODE 4910–62–M

# DEPARTMENT OF THE TREASURY

## Office of the Secretary

## List of Countries Requiring Cooperation with an International Boycott

In order to comply with the mandate of section 999(a)(3) of the Internal Revenue Code of 1986, the Department of the Treasury is publishing a current list of countries which may require participation in, or cooperation with, an international boycott [within the meaning of section 999(b)(3) of the Internal Revenue Code of 1986]. The list differs from the prior quarterly list published in the **Federal Register.** The list reflects the recent union of the Arab Republic of Yemen and the Peoples Democratic Republic of Yemen, the new state being named the Republic of Yemen.

On the basis of the best information currently available to the Department of the Treasury, the following countries may require participation in, or cooperation with, an international boycott (within the meaning of section 999(b)(3) of the Internal Revenue Code of 1986).

Bahrain
Iraq
Jordan
Kuwait
Lebanon
Libya
Oman
Qatar
Saudi Arabia
Syria
United Arab Emirates
Yemen, Republic of

Dated: July 18, 1990.

**Kenneth W. Gideon,**

*Assistant Secretary for Tax Policy.*

[FR Doc. 90–17276 Filed 7–24–90; 8:45 am]

BILLING CODE 4810–25–M

**[Dept. Circular—Public Debt Series—No. 20–90]**

## Treasury Notes on July 31, 1992; Series AC–1992

Washington, July 19, 1990.

### 1. Invitation for Tenders

1.1. The Secretary of the Treasury, under the authority of chapter 31 of title 31, United States Code, invites tenders for approximately $11,500,000,000 of United States securities, designated Treasury Notes of July 31, 1992, Series AC–1992 (CUSIP No. 912827 ZC 9), hereafter referred to as Notes. The Notes will be sold at auction, with bidding on the basis of yield. Payment will be required at the price equivalent of the yield of each accepted bid. The interest rate on the Notes and the price equivalent of each accepted bid will be determined in the manner described below. Additional amounts of the Notes may be issued to Federal Reserve Banks for their own account in exchange for maturing Treasury securities. Additional amounts of the Notes may also be issued at the average price to Federal Reserve Banks, as agents for foreign and international monetary authorities.

### 2. Description of Securities

2.1. The Notes will be dated July 31, 1990, and will accrue interest from that date, payable on a semiannual basis on January 31, 1991, and each subsequent 6 months on July 31 and January 31 through the date that the principal becomes payable. They wll mature July 31, 1992, and will not be subject to call for redemption prior to maturity. In the event any payment date is a Saturday, Sunday, or other nonbusiness day, the amount due will be payable (without

additional interest) on the next business day.

2.2. The Notes are subject to all taxes imposed under the Internal Revenue Code of 1954. The Notes are exempt from all taxation now or hereafter imposed on the obligation or interest thereof by any State, any possession of the United States, or any local taxing authority, except as provided in 31 U.S.C. 3124.

2.3. The Notes will be acceptable to secure deposits of Federal public monies. They will not be acceptable in payment of Federal taxes.

2.4. The Notes will be issued only in book-entry form in a minimum amount of $5,000 and in multiples of that amount. They will not be issued in registered definitive or in bearer form.

2.5. The Department of the Treasury's general regulations governing United States securities, i.e., Department of the Treasury Circular No. 300, current revision (31 CFR part 306), as to the extent applicable to marketable securities issued in book-entry form, and the regulations governing book-entry Treasury Bonds, Notes, and Bills, as adopted and published as a final rule to govern securities held in the TREASURY DIRECT Book-Entry Securities System in Department of the Treasury Circular, Public Debt Series, No. 2–86 (31 CFR part 357), apply to the Notes offered in this circular.

**3. Sale Procedures**

3.1. Tenders will be received at Federal Reserve Banks and Branches and at the Bureau of the Public Debt, Washington, DC 20239–1500, prior to 1:00 p.m., Eastern Daylight Saving time, Wednesday, July 25, 1990. Noncompetitive tenders as defined below will be considered timely if postmarked no later than Tuesday, July 24, 1990, and received no later than Tuesday, July 31, 1990.

3.2. The par amount of Notes bid for must be stated on each tender. The minimum bid is $5,000, and larger bids must be in multiples of that amount. Competitive tenders must also show the yield desired, expressed in terms of an annual yield with two decimals, e.g., 7.10%. Fractions may not be used. Noncompetitive tenders must show the term "noncompetitive" on the tender form in lieu of a specified yield.

3.3. A single bidder, as defined in Treasury's single bidder guidelines, shall not submit noncompetitive tenders totaling more than $1,000,000. A noncompetitive bidder may not have entered into an agreement, nor make an agreement to purchase or sell or otherwise dispose of any noncompetitve awards of this issue prior to the deadline for receipt of tenders.

3.4. Commercial banks, which for this purpose are defined as banks accepting demand deposits, and primary dealers, which for this purpose are defined as dealers who make primary markets in Government securities and are on the list of reporting dealers published by the Federal Reserve Bank of New York, may submit tenders for accounts of customers if the names of the customers and the amount for each customer are furnished. Others are permitted to submit tenders only for their own account.

3.5. Tenders for their own account will be received without deposit from commercial banks and other banking institutions; primary dealers, as defined above; Federally-insured savings and loan associations; States, and their political subdivisions or instrumentalities; public pension and retirement and other public funds; international organizations in which the United States holds membership; foreign central banks and foreign states; and Federal Reserve Banks. Tenders from all others must be accompanied by full payment for the amount of Notes applied for, or by a guarantee from a commercial bank or a primary dealer of 5 percent of the par amount applied for.

3.6. Immediately after the deadline for receipt of tenders, tenders will be opened, followed by a public announcement of the amount and yield range of accepted bids. Subject to the reservations expressed in Section 4, noncompetitive tenders will be accepted in full, and then competitive tenders will be accepted, starting with those at the lowest yields, through successively higher yields to the extent required to attain the amount offered. Tenders at the highest accepted yield will be prorated if necessary. After the determination is made as to which tenders are accepted, an interest rate will be established, at a ⅛ of one percent increment, which results in an equivalent average accepted price close to 100.000 and a lowest accepted price above the original issue discount limit of 99.500. That stated rate of interest will be paid on all of the Notes. Based on such interest rate, the price on each competitive tender allotted will be determined and each successful competitive bidder will be required to pay the price equivalent to the yield bid. Those submitting non-competitive tenders will pay the price equivalent to the weighted average yield of accepted competitive tenders. Price calculations will be carried to three decimal places on the basis of price per hundred, *e.g.*, 99.923, and the determinations of the Secretary of the Treasury shall be final. If the amount of noncompetitive tenders received would absorb all or most of the offering, competitive tenders will be accepted in an amount sufficient to provide a fair determination of the yield. Tenders received from Federal Reserve Banks will be accepted at the price equivalent to the weighted average yield of accepted competitive tenders.

3.7. Competitive bidders will be advised of the acceptance of their bids. Those submitting noncompetitive tenders will be notified only if the tender is not accepted in full, or when the price at the average yield is over par.

**4. Reservations**

4.1. The Secretary of the Treasury expressly reserves the right to accept or reject any or all tenders in whole or in part, to allot more or less than the amount of Notes specified in Section 1, and to make different percentage allotments to various classes of applicants when the Secretary considers it in the public interest. The Secretary's action under this Section is final.

**5. Payment and Delivery**

5.1. Settlement for the Notes allotted must be made at the Federal Reserve Bank or Branch or at the Bureau of the Public Debt, wherever the tender was submitted. Settlement on Notes allotted to institutional investors and to others whose tenders are accompanied by a guarantee as provided in Section 3.5. must be made or completed on or before Tuesday, July 31, 1990. Payment in full must accompany tenders submitted by all other investors. Payment must be in cash; in other funds immediately available to the Treasury; in Treasury bills, notes, or bonds maturing on or before the settlement date but which are not overdue as defined in the general regulations governing United States securities; or by check drawn to the order of the institution to which the tender was submitted, which must be received from institutional investors no later than Friday, July 27, 1990. When payment has been submitted with the tender and the purchase price of the Notes allotted is over par, settlement for the premium must be completed timely, as specified above. When payment has been submitted with the tender and the purchase price is under par, the discount will be remitted to the bidder.

5.2. In every case where full payment has not been completed on time, an amount of up to 5 percent of the par amount of Notes allotted shall, at the discretion of the Secretary of the

Treasury, be forfeited to the United States.

5.3. Registered definitive securities tendered in payment for the Notes allotted and to be held in TREASURY DIRECT are not required to be assigned if the inscription on the registered definitive security is identical to the registration of the note being purchased. In any such case, the tender form used to place the Notes allotted in TREASURY DIRECT must be completed to show all the information required thereon, or the TREASURY DIRECT account number previously obtained.

**6. General Provisions**

6.1. As fiscal agents of the United States, Federal Reserve Banks are authorized, as directed by the Secretary of the Treasury, to receive tenders, to make allotments, to issue such notices as may be necessary, to receive payment for, and to issue, maintain, service, and make payment on the Notes.

6.2. The Secretary of the Treasury may, at any time, supplement or amend provisions of this circular if such supplements or amendments do not adversely affect existing rights of holders of the Notes. Public announcement of such changes will be promptly provided.

6.3. The Notes issued under this circular shall be obligations of the United States, and, therefore, the faith of the United States Government is pledged to pay, in legal tender, principal and interest on the Notes.

**Gerald Murphy,**

*Fiscal Assistant Secretary.*

[FR Doc. 90–17457 Filed 7–23–90; 2:22 pm]

BILLING CODE 4810–40–M

# Sunshine Act Meetings

Federal Register
Vol. 55, No. 143
Wednesday, July 25, 1990

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

**NATIONAL CREDIT UNION ADMINISTRATION**

Notice of Meeting

**TIME AND DATE:** 8:30 a.m., Monday, July 30, 1990.

**PLACE:** 8th Floor, Conference Room, 1776 G Street, NW., Washington, DC 20456.

**STATUS:** Closed.

**MATTERS TO BE CONSIDERED:**

1. Approval of Minutes of Previous Closed Meeting.
2. Personnel Actions. Closed pursuant to exemptions (2), (6), and (9)(B).
3. NCUA's FY 91 and 92 Budgets. Closed pursuant to exemptions (2) and (9)(B).
4. Board Briefing. Closed pursuant to exemption (8).
5. Administrative Action under Section 120 of the Federal Credit Union Act. Closed pursuant tio exemptions (8), (9)(A)(ii), and (9)(B).
6. Administrative Actions under Section 206 of the Federal Credit Union Act. Closed pursuant to exemptions (5), (8), (9)(A)(ii), and (9)(B).
7. Administrative Actions under Sections 206 and 208 of the Federal Credit Union Act. Closed pursuant to exemptions (8) and (9)(A)(ii).

**FOR MORE INFORMATION CONTACT:** Becky Baker, Secretary of the Board, Telephone (202) 682–9600.

Becky Baker,
*Secretary of the Board.*

[FR Doc. 90–17496 Filed 7–23–90; 1:59 pm]
BILLING CODE 7535–01–M

**NATIONAL TRANSPORTATION SAFETY BOARD**

**TIME AND DATE:** 9:30 a.m. Tuesday, July 31, 1990.

**PLACE:** FAA Auditorium, Third Floor, 800 Independence Avenue, SW., Washington, DC 20594.

**STATUS:** Open.

**MATTERS TO BE CONSIDERED:**

1. Marine Accident Report: Grounding of the U.S. Tankship EXXON VALDEX on Bligh Reef, Prince William Sound Near Valdez, Alaska, March 24, 1989.

News Media Contact: Drucella Anderson, 382–6603.

**FOR MORE INFORMATION CONTRACT:** Bea Hardesty, (202) 382–6525.

Dated: July 20, 1990.

Bea Hardesty,
*Federal Register Liaison Officer.*

[FR Doc. 90–17424 Filed 7–23–90; 9:45 am]
BILLING CODE 7533–01–M

**NEIGHBORHOOD REINVESTMENT CORPORATION**

Special Meeting of the Board of Directors

**TIME AND DATE:** 800 A.M.—Thursday, July 26, 1990.

**PLACE:** Federal Reserve System, Martin Building, C Street Entrance Between 20th and 21st Streets, NW., Washington, DC 20551.

**STATUS:** Closed.

**CONTACT PERSON FOR MORE INFORMATION:** Martha A. Diaz-Ortiz, Assistant Secretary, 376–2400.

**AGENDA:** Personnel Matters.

Martha A. Diaz-Ortiz,
*Assistant Secretary.*

[FR Doc. 90–17488 Filed 7–23–90; 8:45 am]
BILLING CODE 7570–01–M

# Corrections

Federal Register
Vol. 55, No. 143
Wednesday, July 25, 1990

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

## DEPARTMENT OF ENERGY

### Southwestern Power Administration

### Proposed Power Rates; Opportunties for Public Review and Comment

*Correction*

In notice document 90-11997 beginning on page 21232 in the issue of Wednesday, May 23, 1990, make the following corrections:

1. On page 21233, in the second column, in the 14th line after "projects", insert "is marketed by Southwestern as the output from isolated projects".

2. On the same page, in the table in the first column, in the first entry, "Kv" should read "kV".

3. Also in the table, in the second column, in the second entry after "Mo" add "or".

4. In the same table, in the second column, in the third entry, as well as in the third column, in the second and third entries, the equal sign should be a plus sign.

5. On page 21234, in the table, in the third column, under "Rate Scheldule F-90B (Borderline Firm), in the second line ".00052" should read ".0052"

6. In the same column, under "Rate Schedule TDC-90 (Transmission)", in the second line after "Mo." remove the period and add ", or".

7. In the second column, under "Rate Schedule TDC-87 (Transmission), in the fourth entry, "kW/Mo" should read "kWh". Make the same change in the third column, fourth entry.

8. In the second column, under the heading, "The Lesser of:", in the fifth entry, "004" should read ".0004".

9. In the second column, under "Rate Schedule IC–87 (Interruptible)>, in the first line "0.74" should read ".074". In the third column, on the same line "0.84" should read ".084".

BILLING CODE 1505-01-D

## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

### Office of the Assistant Secretary for Community Planning and Development

**[Docket No. N-90-1917; FR-2606-N-81]**

### Federal Property Suitable as Facilities to Assist the Homeless

*Correction*

In notice document 90-16831 appearing on page 29677 in the issue of Friday, July 20, 1990, in the third column, at the end of the document the file line and billing code should have appeared as follows:

[FR Doc. 90-16831 Filed 7-19-90; 8:45 am]

BILLING CODE 4210-29-M

BILLING CODE 1505-01-D

federal register

Wednesday
July 25, 1990

Part II

# Environmental Protection Agency

40 CFR Part 141 et al.

National Primary and Secondary Drinking Water Regulations; Synthetic Organic Chemicals and Inorganic Chemicals; Proposed Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 141, 142, and 143**

**[WH-FRL-3701-9]**

**RIN 2040-AB11**

## National Primary and Secondary Drinking Water Regulations; Synthetic Organic Chemicals and Inorganic Chemicals

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** In this document EPA is proposing maximum contaminant level goals (MCLGs) and National Primary Drinking Water Regulations (NPDWRs) for 18 synthetic organic chemicals (SOCs) and six inorganic chemicals (IOCs). The NPDWRs consist of maximum contaminant levels (MCLs) for the SOCs and IOCs. The NPDWRs also include proposed monitoring, reporting, and public notification requirements for these chemicals. This notice proposes the best available technology (BAT) upon which the MCLs are based and BAT for the purpose of issuing variances. In addition to the NPDWRs for the SOCs and IOCs, the Agency is also proposing a secondary MCL (SMCL) for one contaminant. EPA invites written comments on all aspects of today's proposal.

**DATES:** Written comments must be submitted by October 23, 1990. A public hearing will be held at EPA's Education Center Auditorium, 401 M Street, SW., Washington, DC, on September 25, 1990, beginning at 9 a.m.

**ADDRESSES:** Send written comments on the proposed rule to SOCs/IOCs Comment Clerk, Criteria and Standards Division, Office of Drinking Water (WH-550D), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. Commenters are requested to submit any references cited in their written or oral comments. Commenters are also requested to submit one original and three copies of their written comments. A copy of the comments and supporting documents are available for review at the EPA, Drinking Water Docket, 401 M Street, SW., Washington, DC 20460. For access to the docket materials, call 202-382-3027 between 9 a.m. and 3:30 p.m. Anyone planning to attend the public hearing (especially those who plan to make statements) may register in advance by calling or writing the Office of Drinking Water at 202-382-7575, EPA, WH-550D, 401 M Street, SW., Washington, DC 20460. Persons planning to make statements at the hearing should submit written copies of their remarks at the time of the hearing.

Copies of draft health criteria, analytical methods and economic impact analysis documents are available for a fee from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161. The toll-free number is 800/336-4700, local: 703/487-4650.

**FOR FURTHER INFORMATION CONTACT:** Maria Gomez-Taylor, Ph.D., Criteria and Standards Division, Office of Drinking Water (WH-550D), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460, 202/475-7274, or one of the EPA Regional Office contacts listed below. General information may also be obtained from the EPA Drinking Water Hotline. The toll-free number is 800/426-4791, local: 202/382-5533.

**EPA Regional Office**

I. JFK Federal Bldg., Room 2203, Boston, MA 02203. Phone: (617) 853-3610, Jerome Healey.
II. 26 Federal Plaza, Room 824, New York, NY 10278. Phone: (212) 264-1800, Walter Andrews.
III. 841 Chestnut Street, Philadelphia, PA 19107. Phone: (215) 597-9873, Jon Capacasa.
IV. 345 Courtland Street, Atlanta, GA 30365. Phone: (404) 347-2913, Michael Leonard.
V. 230 S. Dearborn Street, Chicago, IL 60604. Phone: (312) 353-2650, Joseph Harrison.
VI. 1445 Ross Avenue, Dallas, TX 75202. Phone: (214) 255-7155, Oscar Cabra.
VII. 726 Minnesota Ave., Kansas City, KS 66101. Phone: (913) 234-2815, Ralph Langemeier.
VIII. One Denver Place, 999 18th Street, Suite 300, Denver, CO 80202-2413. Phone: (303) 293-1424, Patrick Crotty.
IX. 215 Fremont Street, San Francisco, CA 94105. Phone: (415) 974-0763, Steve Pardieck.
X. 1200 Sixth Avenue, Seattle, WA 98101. Phone: (206) 399-4092, Richard Thiel.

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**Abbreviations Used in This Notice**

BAT: Best Available Technology
BTGA: Best Technology Generally Available
CRAVE: Cancer Risk Assessment Verification Endeavor
CWS: Community Water System
CWSS: Community Water Supply Study
DWEL: Drinking Water Equivalent Level
EIA: Economic Impact Analysis
EMSL: EPA Environmental Monitoring and Support Laboratory (Cincinnati)
GAC: Granular Activated Carbon
GWSS: Groundwater Supply Survey
IOC: Inorganic Chemical
LOAEL: Lowest-Observed-Adverse-Effect Level
LOQ: Limit of Quantitation
MCL: Maximum Contaminant Level (expressed as mg/l)*
MCLG Maximum Contaminant Level Goal
MDL Method Detection Limit
MGD: Million Gallons per Day
ng/m $^3$: Nanogram per Cubic Meter
NIPDWR: National Interim Primary Drinking Water Regulation
NIRS: National Inorganics and Radionuclides Survey
NOAEL: No-Observed-Adverse-Effect Level
NOMS: National Organics Monitoring Survey
NPDWR: National Primary Drinking Water Regulation
NSDWR: National Secondary Drinking Water Regulation
NSP: National Screening Program for Organics in Drinking Water
NTNCWS: Non-transient Non-community Water System
PAH: Polynuclear Aromatic Hydrocarbon
POE: Point-of-Entry Technologies
POU: Point-of-Use Technologies
ppb Parts per Billion (Micrograms per Liter)
ppt Parts per Trillion (Nanograms per Liter)
PQL: Practical Quantitation Level
PTA: Packed Tower Aeration
PWS: Public Water System
RfD: Reference Dose
RMCL: Recommended Maximum Contaminant Level
RSC: Relative Source Contribution
RWS: Rural Water Survey
SDWA: Safe Drinking Water Act, or the "Act", as amended in 1986
SMCL: Secondary Maximum Contaminant Level
SOC: Synthetic Organic Chemical
2,3,7,8-TCDD: 2,3,7,8-Tetrachlorodibenzo-p-dioxin
VOC: Volatile Synthetic Organic Chemical
WHO: World Health Organization

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## I. Summary of Today's Action

*Proposed MCLGs for inorganic chemicals (mg/l):*

| | |
|---|---|
| (1) Antimony | 0.003 |
| (2) Beryllium | zero |
| (3) Cyanide | 0.2 |
| (4) Nickel | 0.1 |
| (5) Sulfate | [1] 400/500 |
| (6) Thallium | 0.0005 |

*Proposed MCLGs for organic chemicals (mg/l):*

| | |
|---|---|
| (1) Adipates [Di(ethylhexyl)adipate] | 0.5 |
| (2) Dalapon | 0.2 |
| (3) Dichloromethane (Methylene chloride) | zero |
| (4) Dinoseb | 0.007 |
| (5) Diguat | 0.02 |
| (6) Endothall | 0.1 |
| (7) Endrin | 0.002 |
| (8) Glyphosate | 0.7 |
| (9) Hexachlorobenzene | zero |
| (10) Hexachlorocyclopentadiene (HEX) | 0.05 |
| (11) Oxamyl (Vydate) | 0.2 |
| (12) PAHs[2] [Benzo(a)pyrene] | zero |
| (13) Phthalates[3] [Di(ethylhexyl)phthalate] | zero |
| (14) Picloram | 0.5 |
| (15) Simazine | 0.001 |
| (16) l,2,4-Trichlorobenzene | 0.009 |
| (17) l,1,t2Trichloret-hane | 0.003 |
| (18) 2,3,7,8-TCDD (Dioxin) | zero |

[1] Alternative MCLG options proposed. See discussion in Section IIID5.

*Proposed MCLs for inorganic chemicals (mg/l):*

| | |
|---|---|
| (1) Antimony | 0.01/0.005[1] |
| (2) Beryllium | 0.001 |
| (3) Cyanide | 0.2 |
| (4) Nickel | 0.1 |
| (5) Sulfate | [1] 400/500 |
| (6) Thallium | [1] 0.002/0.001 |

*Proposed MCLs for organic chemicals (mg/l):*

| | |
|---|---|
| (1) Adipates [Di(ethylhexyl)adipate] | 0.5 |
| (2) Dalapon | 0.2 |
| (3) Dichloromethane (Methylene chloride) | 0.005 |
| (4) Dinoseb | 0.007 |
| (5) Diguat | 0.02 |
| (6) Endothall | 0.1 |
| (7) Endrin | 0.002 |
| (8) Glyphosate | 0.7 |
| (9) Hexachlorobenzene | 0.001 |
| (10) Hexachlorocyclopentadiene (HEX) | 0.05 |
| (11) Oxamyl (Vydate) | 0.2 |
| (12) PAHs [2] [Benzo(a)pyrene] | 0.0002 |
| (13) Phthalates [3] [Di(ethylhexyl)phthalate] | 0.004 |
| (14) Picloram | 0.5 |
| (15) Simazine | 0.001 |
| (16) l,2,4-Trichlorobenzene | 0.009 |
| (17) 1,1,2-Trichlorethane | 0.005 |
| (18) 2,3,7,8-TCDD (Dioxin) | $5 \times 10^{-8}$ |

[1] Alternative MCL options proposed. See discussion in Section IVB.

[2] EPA also proposes as an option for public comment the establishment of MCLGs and MCLs for six additional PAHs classified as B2, probable human carcinogens. The MCLG would be zero for these PAHs: Benz(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Dibenz(a,h)anthracene, and Indenopyrene. The MCL would be equal to the PQL for each PAH (see proposed rule for resulting MCLs).

[3] EPA requests public comment on whether butylbenzyl phthalate should also be regulated. The MCLG and the MCL for this compound would be 0.1 mg/1. See discussion in Section IIIE.

*Proposed secondary MCL (mg/l):*

| | |
|---|---|
| Hexachlorocyclopentadiene | 0.008 |

*Proposed BAT for IOCs:*

| | |
|---|---|
| Antimony | Coagulation/Filtration. |
| | Reverse Osmosis. |
| Beryllium | Activated Alumina. |
| | Coagulation/Filtration. |
| | Lime Softening. |
| | Ion Exchange. |
| | Reverse Osmosis. |
| Cyanide | Reverse Osmosis. |
| | Ion Exchange. |
| | Chlorine. |

* 1,000 micrograms (μg) = 1 milligram (mg)

| | |
|---|---|
| Sulfate | Reverse Osmosis. Ion Exchange. |
| Thallium | Ion Exchange. Activated Alumina |

*Proposed BAT for SOCs:*

| SOC | BAT[1] |
|---|---|
| Adipates [Di(ethylhexyl)adipate] | GAC; PTA. |
| Dalapon | GAC. |
| Dichloromethane (Methylene chloride) | —; PTA. |
| Dinoseb | GAC. |
| Diquat | GAC. |
| Endothall | GAC. |
| Endrin | GAC. |
| Glyphosate | GAC. |
| Hexachlorobenzene | GAC. |
| Hexachlorocyclopentadiene (HEX) | GAC; PTA. |
| Oxamyl (Vydate) | GAC. |
| PAHs [Benzo(a)pyrene] [2] | GAC. |
| Phthalates [Di(ethylhexyl)phthalate] [2] | GAC. |
| Picloram | GAC. |
| Simazine | GAC. |
| 1,2,4-Trichlorobenzene | GAC; PTA. |
| 1,1,2-Trichloroethane | GAC; PTA. |
| 2,3,7,8-TCDD (Dioxin) | GAC. |

[1] Best Available Technology (BAT) key:
GAC=Granular Activated Carbon
PTA=Packed Tower Aeration
[2] GAG is also BAT for other PAHs and phthalates that may be regulated.

## Proposed Compliance Monitoring Requirements for IOCs

| Contaminant | Surface | Ground |
|---|---|---|
| Inorganics: Antimony Beryllium Cyanide Nickel Sulfate Thallium | *Initial:* Annually<br>*Repeat:* Minimum of every 10 years after 3 rounds completed | *Initial:* Every three years.<br>*Repeat:* Minimum of every 10 years after 3 rounds completed. |

Note: This chart is a summary of the proposed monitoring requirements. The reader should consult the proposed rule for a full description of those requirements.

## Proposed Compliance Monitoring Requirements for SOCs [1]

| Contaminant | Non-Vulnerable | | Vulnerable—all systems |
|---|---|---|---|
| | Surface | Ground | |
| (a) VOCs: Dichloromethane 1,2,4-Trichlorobenzene 1,1,2-Trichloroethane | *Initial:* Quarterly for 1 year<br>*Repeat:* State discretion | *Initial:* Quarterly for 1 year<br>*Repeat:* Every five years | *Initial:* Quarterly for 1 year.<br>*Repeat: VOCs detected*—Quarterly; *VOCs not detected*—>500 connections—every 3 years, <500 connections—every 5 years. |
| (b) *non-volatile SOCs* Di (ethylhexyl)adipate Dalapon Dinoseb Diquat Endothall Endrin Glyphosate Hexachlorobenzene Hexachlorocyclopentadiene Oxamyl (Vydate) PAHs [Benzo(a)pyrene] [2] Di(ethylhexyl)phthalate Picloram Simazine 2,3,7,8-TCDD (Dioxin) | No monitoring required | No monitoring required | *Initial:* Quarterly for one year.<br>*Repeat: Detected*—>500 connections—Quarterly, <500 connections—Annually;<br>*Not detected*—>500 connections—4 quarterly samples every 3 years;<br><500 connections—4 quarterly samples every 5 years. |

[1] This chart is a summary of the proposed monitoring requirements. The reader should consult the proposed rule for a full description of these requirements.
[2] EPA may also regulate six additional carcinogenic PAHs (see Section IIIE).

## Analytical Methods for Inorganic Chemicals

| Contaminant | Methodology |
|---|---|
| Antimony | Atomic Absorption; Furnace. |
| | Inductively-Coupled Plasma-Mass Spectrometry. |
| | Hydride-Atomic Absorption. |
| Beryllium | Atomic Absorption; Furnace. |
| | Inductively-Coupled Plasma. |
| | Inductively-Coupled Plasma-Mass Spectrometry. |
| Nickel | Atomic Absorption; Furnace. |
| | Inductively-Coupled Plasma. |
| | Inductively-Coupled Plasma-Mass Spectrometry. |
| Thallium | Atomic Absorption; Furnace. |

## Analytical Methods for Inorganic Chemicals—Continued

| Contaminant | Methodology |
|---|---|
| | Inductively-Coupled Plasma-Mass Spectrometry. |
| Cyanide | Distillation, Titrimetric. |
| | Distillation, Automated, Spectrometric. |
| Sulfate | Automated, Chloranilate. |
| | Gravimetric. |
| | Turbidimetric. |
| | Ion Chromatography. |

## Analytical Methods for Synthetic Organic Chemicals

| Contaminant | Methodology |
|---|---|
| Di(ethylhexyl)adipate | 506, 525 |
| Dalapon | 515.1 |
| Dichloromethane | 502.1, 502.2, 524.1, 524.2 |
| Dinoseb | 515.1 |
| Diquat | 549 |
| Endothall | 548 |
| Endrin | 505, 508, 525 |
| Glyphosate | 547 |
| Hexachlorobenzene | 505, 508, 525 |
| Hexachlorocyclopentadiene | 505, 508, 525 |
| Oxamyl (Vydate) | 531.1 |
| PAHs [Benzo(a)pyrene] | 525, 550, 550.1 |

ANALYTICAL METHODS FOR SYNTHETIC ORGANIC CHEMICALS—Continued

| Contaminant | Methodology |
|---|---|
| Di(ethylhexyl)phthalate | 506, 525 |
| Picloram | 515.1 |
| Simazine | 505, 507, 525 |
| 1,2,4-Trichlorobenzene | 502.2, 524.2, 503.1 |
| 1,1,2-Trichloroethane | 502.1, 502.2, 524.1, 524.2 |
| 2,3,7,8-TCDD (Dioxin) | 513 |

Laboratory Certification Criteria

• IOCs

Antimony, Beryllium and Thallium

Two standard deviations based on study statistics until enough performance data are available to develop fixed acceptance limits.

Cyanide ±30 percent
Nickel ±15 percent
Sulfate ±15 percent

• VOCs

±20 percent >0.010 mg/l
±40 percent <0.010 mg/l

• SOCs

Two standard deviations based on study statistics until enough performance data are available to develop fixed acceptance limits.

**II. Statutory Authority**

Section 1412 of the Safe Drinking Water Act, as amended in 1986 ("SDWA" or "the Act"), requires EPA to publish Maximum Contaminant Level Goals (MCLGs) and promulgate National Primary Drinking Water Regulations (NPDWRs) for contaminants in drinking water which may cause any adverse effect on the health of persons which are known or anticipated to occur in public water systems. Under section 1401, the NPDWRs are to include Maximum Contaminant Levels (MCLs) and "criteria and procedures to assure a supply of drinking water which dependably complies" with such MCLs. Under section 1412(b)(7)(A), if it is not economically or technically feasible to ascertain the level of a contaminant in drinking water, EPA may require the use of a treatment technique instead of an MCL.

Under section 1412, EPA is to establish MCLGs and promulgate national primary drinking water regulations for 83 contaminants within three years time. The regulations must be established by June 19, 1987 for 9 contaminants, by June 19, 1988 for 40 contaminants and by June 19, 1989 for the remaining 34 contaminants. An additional 25 contaminants are to be regulated every 3 years, starting in 1991.

*A. MCLGs, MCLs and BAT*

EPA is to establish MCLGs at the level at which no known or anticipated adverse effects on the health of persons occur and which allow an adequate margin of safety. MCLGs are non-enforceable health goals. EPA discussed the available health effects data for some contaminants in this proposed rule in 50 FR 46936 (November 13, 1985), but did not propose MCLGs, previously termed Recommended Maximum Contaminant Levels (RMCLs) at that time. The SDWA now mandates EPA to establish MCLGs for all contaminants in this proposed rule.

MCLs are enforceable standards which the Act directs EPA to set as close to the MCLGs as feasible. "Feasible" means feasible with the use of the best technology, treatment techniques, or other means which the Administrator finds available (taking cost into consideration) after examination for efficacy under field conditions and not solely under laboratory conditions. Also, the SDWA requires the Agency to identify the best available technology (BAT) which is feasible for meeting the MCL for each contaminant.

*B. Variances and Exemptions*

Section 1415 authorizes the State (the term "State" is used in this preamble to mean the State agency with primary enforcement responsibility for the public water supply system program or EPA if the State does not have primacy) to issue variances from NPDWRs. The State may issue a variance if it determines that a system cannot comply with an MCL despite application of the best available technology (BAT). The State may not issue a variance where an unreasonable risk to health exists. Under section 1415, EPA must propose and promulgate its finding of the best available technology, treatment techniques, or other means available for each contaminant, for purposes of section 1415 variances, at the same time that it proposes and promulgates a maximum contaminant level for such contaminant. EPA's finding of BAT, treatment techniques, or other means for purposes of issuing variances may vary among systems, depending upon the number of persons served by the system or for other physical conditions related to engineering feasibility and costs of complying with MCLs, as considered appropriate by EPA.

Under section 1416(a), the State may exempt a public water system from any MCL or treatment technique requirement if it finds that (1) due to compelling factors (which may include economic factors), the system is unable to comply, (2) the system was in operation on the effective date of the MCL or treatment technique, or, for a newer system, that no reasonable alternative source of drinking water is available to that system, and (3) the exemption will not result in an unreasonable risk to health. Under section 1416(b), at the same time it grants an exemption the State is to prescribe a compliance schedule and a schedule for implementation of any required interim control measures. For more information on variances and exemptions readers are referred to 54 FR 22067 (May 22, 1989).

*C. Monitoring, Quality Control and Records*

Under section 1401(1)(D) of the Act, NPDWRs are to contain "criteria and procedures to assure a supply of drinking water which dependably complies with such maximum contaminant levels; including quality control and testing procedures to insure compliance with such levels * * *". In addition, section 1445 states that, "every person who is a supplier of water * * * shall establish and maintain such records, make such reports, conduct such monitoring and provide such information as the Administrator may reasonably require by regulation to assist him in establishing regulations, * * * in evaluating the health risks of unregulated contaminants or in advising the public of such risks." Section 1445 also requires EPA to promulgate regulations requiring every public water system to conduct a monitoring program for unregulated contaminants.

*D. Public Water Systems*

Public water systems are defined in section 1401 of the Act as those systems which provide piped water for human consumption and have at least 15 connections or regularly serve at least 25 people. By regulation EPA has divided public water systems into community; non-transient, non-community; and non-community water systems. Community water systems serve at least 15 service connections used by year-round residents or regularly serve at least 25 year-round residents (40 CFR 141.2). Non-transient, non-community water systems regularly serve at least 25 of the same people over six months of the year. Schools and factories which serve water to 25 or more of the same people for six or more months of the year are non-transient, non-community water systems. Transient non-community systems, by definition, are all other water systems.

Transient non-community systems may include, for example, restaurants, gas stations, campgrounds and churches, among others.

*E. Public Notification*

Section 1414(c) of the Act requires the owner or operator of a public water system which fails to comply with an applicable maximum contaminant level or treatment technique requirement, testing procedure, or section 1445(a) monitoring requirement to give notice to the persons served by the water system. Owners and operators of public water systems for which variances or exemptions are in effect, or which fail to comply with a compliance schedule associated with a variance or exemption, must also give notice. Section 1445(a)(5) also requires public water systems to notify the persons served by the water system and the Administrator of the EPA of the availability of the results of monitoring for unregulated contaminants.

*F. Secondary MCLs (SMCLs)*

Section 1412(c) of the SDWA also authorizes EPA to promulgate National Secondary Drinking Water Regulations (NSDWRs). A NSDWR is defined in section 1401(2) as "a regulation which applies to public water systems and which specifies the maximum contaminant levels which, in the judgment of the Administrator, are requisite to protect the public welfare." The NSDWR "may apply to any contaminant in drinking water which may adversely affect the odor or appearance of such water and consequently may cause a substantial number of persons served by the public water systems providing such water to discontinue its use, or which may otherwise adversely affect the public welfare." NSDWRs are not federally enforceable but instead offer additional guidance to water systems and States based upon odor, aesthetics, and appearance. Secondary Maximum Contaminant Levels (SMCLs) were established in 1979 for 12 contaminants (44 FR 42196, July 19, 1979) and in 1986 for fluoride (51 FR 11396, April 2, 1986). A recent notice proposed SMCLs for nine contaminants (54 FR 22062, May 22, 1989).

**III. Establishing MCLGs**

*A. Background*

Congress revised the Safe Drinking Water Act in 1986 to require that MCLGs and NPDWRs for specific contaminants be proposed simultaneously and then promulgated simultaneously (SDWA section 1412 (a)(3)). This was intended to streamline the development of drinking water standards. Today's notice includes proposed MCLGs and MCLs for 24 compounds that are part of the list of 83 contaminants to be regulated by EPA under section 1412(b) of the Act. Other contaminants in the list of 83 are covered in separate notices. The Agency promulgated MCLGs and NPDWRs for eight VOCs and fluoride by June 19, 1987 (see 52 FR 25690 and 51 FR 11396). Regulations for the microbiological contaminants on the list were promulgated in 54 FR 27486. In addition, MCLGs and NPDWRs for lead and copper were reproposed in 53 FR 31516, MCLs and NPDWRs and 38 synthetic organic chemicals (SOCs) and inorganic chemicals (IOCs) from the list of 83 were proposed in 54 FR 22062.

*B. Procedure for Setting MCLGs*

A detailed discussion of how the MCLGs are set may be found in the November 13, 1985 proposal (50 FR 46944–46949). In summary, EPA uses a three category approach to set the MCLGs (see Table 1). For those chemicals in Category I (Groups A or B; strong evidence of carcinogenicity), the EPA sets the MCLGs at zero. For those chemicals in Category II (Group C; limited evidence of carcinogenicity), the MCLGs are set based upon non-carcinogenic data [the Drinking Water Equivalent Level (DWEL)] (see below) if adequate data exist divided by an additional uncertainty factor of 10, or upon a lifetime carcinogenicity risk calculation in the range of $10^{-5}$ to $10^{-6}$ if valid non-carcinogenic data are not available and risk levels can be calculated from adequate data. MCLGs for Category III chemicals (Group D or E; inadequate or no evidence of carcinogenicity) are set based upon the DWEL.

(1) Setting MCLGs for Category I Contaminants

Because there is no demonstrated threshold for carcinogenic health effects, EPA sets MCLGs for Group A and B carcinogens at zero. This approach was upheld in *Natural Resources Defense Council vs. Thomas*, 824 F.2d 1211 (D.C. Cir. 1987).

TABLE 1.—THREE CATEGORY APPROACH TO SET MCLGS

| | |
|---|---|
| Category I: | Strong evidence of carcinogenicity<br>• EPA Group A or Group B |
| Category II: | Limited evidence of carcinogenicity<br>• EPA Group C |
| Category III: | Inadequate or no evidence of carcinogenicity<br>• EPA Group D or Group E |

(2) Setting MCLGs for Categories II and III Contaminants

(a) Calculation of Drinking Water Equivalent (DWEL)

For compounds which are not considered to have strong evidence of carcinogenicity (i.e., those contaminants in Categories II and III), EPA calculates "no-effect" levels for chronic periods of exposure, including a margin of safety. This level, measured in milligrams per kilogram of body weight per day (mg/kg/day), is termed the Reference Dose (RfD) [formerly termed the Acceptable Daily Intake (ADI)] and is derived from a no-observed-adverse-effect-level (NOAEL) or lowest-observed-adverse-effect-level (LOAEL) identified from a study in humans or animals. The RfD is an estimate (with uncertainty spanning perhaps an order of magnitude) of the daily exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious effect during a lifetime. The RfD is calculated as follows:

$$\text{RfD} = \frac{\text{(NOAEL or LOAEL)}}{\text{(Uncertainty Factors)}} = \text{____mg/kg bw/day}$$

The uncertainty factor is used to account for areas of uncertainty in the available data when extrapolating experimental results 'from human or animal studies to a large heterogeneous human population. Uncertainty factors may be used to account for: (1) Variations in sensitivity among members of the human population, (2) extrapolation from animal data to humans (either from chronic or subchronic studies), and (3) use of a

LOAEL instead of a NOAEL. A modifying factor is an additional uncertainty factor greater than one and less than or equal to ten that may be used to account for other scientific uncertainties of the study not explicitly stated above (e.g., the completeness of the overall data base). Additional information on Agency guidelines on uncertainty factors is contained in 50 FR 46946 and Barnes and Dourson (1988).

From the RfD, a DWEL can be calculated. The DWEL represents a medium specific (i.e., drinking water) lifetime exposure at which non-carcinogenic health effects are not anticipated to occur. [For those chemicals in Category II, EPA's policy in setting drinking water standards is to divide the DWEL by an additional uncertainty factor of 10 to account for the potential carcinogenic risk.] The DWEL assumes 100 percent exposure from drinking water and is derived as follows:

$$DWEL = \frac{(RfD) \times (bw \text{ in kg})}{(Drinking\ Water\ Vol.\ in\ 1/day)} = ____mg/l$$

Body Weight (bw)=usually assumed to be 70-kg adult. Drinking Water Vol.=assumed to be 2 liters per day for an adult.

(b) Relative Source Contribution (RSC)

To determine the MCLG for non-carcinogens, the contribution from other sources of exposure, including air and food, is evaluated. The approach EPA uses to estimate the relative source contribution for the purpose of calculating MCLGs has been discussed in detail at 54 FR 22069 (May 22, 1989).

In summary, the Agency uses the following policy to estimate RSCs for the purpose of calculating MCLGs: If sufficient quantitative data are available on the relative contribution from each source to total exposure, EPA subtracts the actual contribution from food and air from the DWEL to calculate the MCLG, provided the drinking water exposure is between 20 and 80 percent. If the drinking water exposure is between 80 and 100 percent, EPA uses 80 percent to provide adequate protection for individuals whose total exposure to a contaminant may be higher than that indicated by available data. If the drinking water exposure is less than 20 percent of total exposure, EPA is considering the use of a 20 percent floor. In these situations, drinking water contributes a relatively small portion of total exposure. EPA believes that the most appropriate course of action in such cases is to try to reduce exposure from other sources rather than to promulgate increasingly lower MCLGs to control the relatively small exposure contributed by drinking water. The Agency requests comments on the use of a 20 percent floor for relative source contributions.

In cases when sufficient quantitative data are not available on the contribution from each source of exposure, the Agency's policy in setting drinking water standards is to use 20 percent relative source contribution. Most contaminants in this proposed rule fall in this category.

Table 2 summarizes the Agency's approach to estimating relative source contributions for the purpose of calculating MCLGs. EPA has requested public comment on this approach as part of an earlier notice (see 54 FR 22070, May 22, 1989).

TABLE 2.—RELATIVE SOURCE CONTRIBUTION—PERCENT OF TOTAL EXPOSURE

| | Drinking water exposure between 20 and 80% | Drinking water exposure between 80 and 100% | Drinking water exposure less than 20% |
|---|---|---|---|
| Adequate data are available. | EPA uses actual data. | EPA uses an 80% drinking water contribution. | EPA is considering using 20% drinking water contribution. |
| Adequate data are not available | EPA uses a 20% drinking water contribution. | | |

*C. Summary of Comments*

EPA received 112 sets of comments on the November 13, 1985 proposed rule for synthetic organic chemicals, inorganic chemicals and microorganisms. The Agency's responses to these comments are contained in the document entitled, "Summary of Comments and Responses from the October 5, 1983, ANPRM and the November 13, 1985, MCLG Proposals for the Synthetic Organic Chemicals, Inorganic Chemicals and Microorganisms." A brief summary of the comments dealing with general issues concerning the MCLGs is contained in EPA's proposal of MCLGs and NPDWRs for 38 synthetic organic chemicals and inorganic chemicals. See 54 FR 22071 (May 22, 1989).

Few comments were received concerning individual chemicals in this proposed rule. No public comments were received on many of the synthetic organic chemicals, including adipates, dalapon, dinoseb, diquat, endothall, glyphosate, hexachlorobenzene, hexachlorocyclopentadiene, phthalates, picloram, simazine, 1,1,2-trichloroethane and vydate. For other chemicals in this proposal, most commenters discussed the lack of health and/or occurrence data in drinking water and recommended that MCLGs and MCLs should not be set for these contaminants. Some commenters suggested that issuing health advisories may be more appropriate than setting MCLGs and NPDWRs at this time.

EPA Response

Even though EPA asked for public comments on which contaminants to regulate, under the 1986 amendments to the SDWA, EPA is now required to set MCLGs and MCLs or treatment techniques for the 24 contaminants covered in today's proposal. These contaminants are among the list of 83 specific contaminants that must be regulated. EPA only has discretion to make substitutions for seven of the contaminants on the list, which the Agency has already done (52 FR 25720).

EPA recognizes that human health data for these 24 contaminants are often limited and that their levels of occurrence are generally low and infrequent. Nevertheless, the Agency believes that the health data are sufficient to support the establishment of MCLGs and MCLs for these contaminants. The available health effects data indicate that these compounds can cause adverse health effects under certain conditions. The MCLGs have been proposed at levels to prevent these effects, with an adequate margin of safety. EPA also notes, however, that because of the low occurrence levels, a large majority of the public water systems will need to implement little or no new treatment to

meet many of the MCLs in this proposed rule.

*D. Proposed MCLGs for Inorganic Chemicals*

The information provided below for each contaminant has been summarized from various support documents contained in the public docket for this rulemaking. Additional information on important characteristics of each contaminant, production, uses, occurrences in food, air and water, and human exposure may be found in the corresponding occurrence and exposure assessment document. For example, for additional information on antimony, readers are referred to the document entitled, "Occurrence and Exposure Assessment of Antimony in Public Drinking Water Supplies, 1989." Similarly, readers are referred to the corresponding criteria document for detailed information on the health effects of a specific contaminant. For antimony, the corresponding document is entitled, "Drinking Water Criteria Document for Antimony, 1988." Health effects references listed in today's notice are discussed in the corresponding health criteria documents.

Table 3 presents the proposed MCLGs for the inorganic chemicals and synthetic organic chemicals in this notice.

TABLE 3.—PROPOSED MCLGS FOR THE IOCS AND THE SOCS

| Compound | Proposed MCLG (mg/l) |
|---|---|
| Inorganics: | |
| Antimony | .003 |
| Beryllium | zero |
| Cyanide | .2 |
| Nickel | .1 |
| Sulfate | [1] 400/500 |
| Thallium | .0005 |
| Organics: | |
| Adipates [Di(ethylhexyl)adipate] | .5 |
| Dalapon | .2 |
| Dichloromethane (Methylene chloride) | zero |
| Dinoseb | .007 |
| Diquat | .02 |
| Endothall | .1 |
| Endrin | .002 |
| Glyphosate | .7 |
| Hexachlorobenzene | zero |
| Hexachlorocyclopentadiene (HEX) | .05 |
| Oxamyl (Vydate) | .2 |
| PAHs [Benzo(a)pyrene] [2] | zero |
| Phthalates [Di(ethylhexyl)phthalate] [3] | zero |
| Picloram | .5 |
| Simazine | .001 |
| 1,2,4-Trichlorobenzene | .009 |
| 1,1,2-Trichlorethane | .003 |
| 2,3,7,8-TCDD (Dioxin) | zero |

[1] EPA is proposing two alternative options for the sulfate MCLG.

[2] In addition to benzo(a)pyrene, EPA proposes as an option for public comment an MCLG of zero for six additional PAHs: benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene and indenopyrene.

[3] EPA also requests public comment on whether butylbenzyl phthalate should also be regulated. The MCLG for this compound would be 0.1 mg/l. See discussion in Section IIIE.

1. Antimony

Antimony (Sb) is a Group V–A metalloid that can exhibit +5, +4, +3, 0, and −3 oxidation states. The +3 state is the most commonly occurring and persistent form. On an industrial scale, the metal (0 oxidation) and the mixed valence +3/+5 and +5 oxidation state compounds are produced. The trivalent compounds are formed most commonly, and the trioxide and the trisulfide are the most commonly extracted and processed forms.

Total production of primary antimony oxides in the United States in 1981 was 16,425 short tons. An additional 12,170 short tons were imported. In 1987, reported use of primary antimony was 11,500 short tons, and an additional 14,000 short tons were recovered and used as secondary antimony.

Industrially manufactured products that contain antimony include flame retardants, ceramics and glass, chemicals for use in semiconductor formation, polymerization catalysts, fireworks and explosives, pesticides, and tin/antimony solder. Flame retardants account for 65 percent or more of the annual consumption of antimony.

*Occurrence and Human Exposure.* The National Inorganics and Radionuclides Survey (NIRS) was a two-year national sampling and analytical survey designed to gather information on the occurrence of selected inorganic compounds and radionuclides, including antimony, in drinking water. The results of the NIRS study revealed that antimony was not a common contaminant in the nation's drinking water supply. Only three positive samples were detected out of 988 collected. The concentrations in the positive samples ranged from 41 to 45 μg/l. The detection limit was 9 μg/l.

Additional studies of surface water sources confirm that antimony levels in drinking water are low. A study conducted to determine antimony concentrations in the Seattle water supply showed no detectable concentrations of antimony in tap, raw and finished surface water samples collected and analyzed during a one year period.

A study by the U.S. Department of Health, Education, and Welfare reported a mean concentration of antimony ranging from less than 2.0 to 100 μg/l at 39 utilities throughout the United States that supplied water to neighboring states. In another study, 3,834 samples from randomly selected households nationwide were analyzed for antimony. Observed concentrations of antimony ranged from 0.6 to 4.0 μg/l, with a reported mean concentration of 1.87 μg/l.

Two additional studies from the mid-1960s provide data on antimony. In one study, 194 public water supplies were sampled, with reported antimony concentrations ranging from 1.0 to 100 μg/l and a mean of 25 μg/l. The second study reported a mean antimony concentration lower than 0.2 μg/l in samples of tap water from 94 municipal systems nationwide.

As part of a study for EPA to evaluate the potential for leaching of metals into drinking water from tin/antimony solder, tap water samples were analyzed from buildings at the University of Washington where 95/5 tin/antimony solders had been used since 1968. Samples, collected after standing overnight, were taken from eight buildings at the point where the distribution system entered the buildings. Only one building had tap water with a detectable antimony concentration; the concentration was 0.6 μg/l. The detection limit was 0.6 μg/l.

Data on antimony in ambient air provided by EPA's Office of Air Quality Planning and Standards (OAQPS) indicate that during 1980 and 1981, antimony was observed in 1,459 samples from 23 sites, with a range of mean values from 0.03 to 0.036 $\mu g/m^3$. An adult male inhaling 23 $m^3$/day of air containing 0.03 $\mu g/m^3$ would be exposed to about 0.7 μg/day from this route.

Limited information is available on the occurrence of antimony in food in the United States. The Food and Drug Administration (FDA) does not routinely analyze for antimony as part of its Total Diet Studies. However, antimony was included in a special FDA diet study which analyzed foods from 12 food groups, collected between October 1979 and September 1980 in 20 cities. Antimony was detected in only two of the 12 food groups, namely grain/cereal products and garden fruits. In grain and cereal products, antimony was found at a mean concentration of 18 ppb, with a range of 0 to 85 ppb. Garden fruits had a mean antimony concentration of 2.1 ppb, a range of 0 to 6.5 ppb. An earlier FDA survey of various trace metals in various food classes revealed antimony at levels of less than 4.0 ppb (wet weight) in dairy

products to a high of less than 10.0 ppb in grain and cereal products.

In addition to the FDA studies, a research program on dietary intake of nutrients and other elements, conducted by the International Atomic Energy Agency (IAEA) provides data on antimony. Using 201 foods from the FDA's Total Diet Study, a mixed diet composite was prepared to represent the intake of 25- to 30-year-old males in the United States. Antimony was found in the mixed total diet at a mean concentration of 9.3 ppb plus or minus 1.4 ppb. Assuming an intake of 2 kg/day of food for the adult male (excluding drinking water), this would suggest an intake of approximately 18 μg/day.

Some earlier studies indicated a higher dietary intake of antimony. Schroeder (1970) estimated average human daily intake to be less than 100 μg. Murphy et al. (1971) reported intakes of 0.25 to 1.28 mg per day for institutionalized children.

The available information on the occurrence of antimony is insufficient to determine the national distribution of intake by any of the three routes of exposure. However, it appears that under typical exposure conditions, food is the predominant source for the adult male (approximately 18 μg/day), with air contributing less than 1 μg/day. Drinking water would provide an amount equivalent to diet plus air if antimony were present at about 9–10 μg/l, a level somewhat higher than what is typical, given that almost all of the NIRS sites were reported to be below the minimum reportable concentration of 9 μg/l. However, the available data also indicate that some small percentage of supplies may have antimony present at much higher levels (40–45 μg/l) where it would likely be the predominant source of exposure.

*Health effects.* Estimates of acute oral $LD_{50}$ values range from 0.015 g/kg in rabbits to 0.6 g/kg in mice. Intravenous, sub-cutaneous and intraperitoneal $LD_{50}$ values range from 0.011 to 0.329 g/kg in rats, mice, guinea pigs and rabbits. The most prominent signs of acute oral toxicity are nausea and vomiting, often with diarrhea. There is considerable variation in sensitivity to antimony among species. Based on early acute oral studies, mice and rats appear less sensitive than dogs and cats. In addition, considerable variation in toxicity exists between different chemical forms of antimony; the soluble compounds are more toxic than the less soluble oxides.

Studies on the toxicokinetics of antimony indicate that absorption of trivalent antimony varies depending on the species. In the mouse, white rat, hamster, guinea pig, rabbit, dog and human, trivalent antimony is excreted in both the urine and feces, the ratio depending upon the species. About 7 to 15 percent of an oral dose of trivalent antimony is absorbed by rodents. Absorbed antimony usually distributes in most tissues of the body, with some preferential accumulation in bone, thyroid and adrenal. Pentavalent antimony is excreted primarily in the urine of most species, including humans. Trivalent antimony is readily taken up by red blood cells, but pentavalent antimony does not enter the red blood cells. There appears to be minimal accumulation of antimony in the body, although some antimony has been reported in human milk and tissues.

Two chronic studies involving lifetime oral exposure to potassium antimony tartrate have been considered by EPA for the derivation of the MCLG for antimony. The first study [Schroeder HA, Mitchener M, Balassa JJ, Kanisawa M, Nason AP. 1968. Zirconium, niobium, antimony and fluorine in mice: Effects on growth, survival and tissue levels. J. Nutr. 95:95–101] involved groups of about 54 male and 54 female mice exposed to drinking water containing 0 or 5 ppm Sb (as potassium antimony tartrate) from the time of weaning until death. This corresponds to an average daily dose of about 0.83 mg/kg/day. Antimony did not significantly suppress growth in either males or females during the first year, but did result in weight loss in males after 18 months and decreased weight gain in females measured at 12 and 18 months. Antimony did not significantly affect the lifespan of male test animals compared to the controls. However, in female mice median and 75 percentile lifespans were shortened by 45 to 86 days. The LOAEL identified from this study is 0.83 mg/kg/day.

The second study [Schroeder HA, Mitchener M, Nason AP. 1970. Zirconium, niobium, antimony, vanadium and lead in rats: life term studies. J. Nutr. 100:59–68] involved groups of at least 50 male and 50 female rats exposed to drinking water containing 0 or 5 mg antimony/liter (as potassium antimony tartrate) from the time of weaning until death. This corresponds to an average daily dose of about 0.43 mg/kg/day for the test animals exposed to antimony. Antimony at this level was found to be toxic to rats. The observed effects were decreased longevity and altered blood levels of glucose (lowered) and cholesterol (increased). The LOAEL was identified as 0.43 mg/kg/day in this study.

EPA believes that the lifetime study in rats is the most suitable to calculate the MCLG for antimony because the LOAEL in rats is lower than the LOAEL in mice. From the rat LOAEL, a DWEL of 0.015 mg/l can be derived for the 70-kg adult consuming 2 liters of water per day by applying an uncertainty factor of 1,000 (which is in accordance with NAS/ODW guidelines to use with a LOAEL derived from an animal study).

$$\text{DWEL} = \frac{0.43\ \text{mg/kg/day} \times 70\ \text{kg}}{1{,}000 \times 2\ \text{l/day}} = 0.015\ \text{mg/l}$$

Various salts of antimony have been found to be mutagenic in various test systems. Sodium antimony tartrate has been found to be mutagenic in bacteria, rat bone marrow cells and human lymphocytes. Antimony trichloride, antimony pentachloride and antimony trioxide induced DNA damage in bacteria. Potassium antimony tartrate induced chromosoma l aberrations in human leukocytes. The carcinogenic potential of antimony is likely to be influenced by the route of exposure, since the bioavailability (absorption and metabolism) is determined by the route of exposure. Antimony dust and ore, when inhaled, appears to be carcinogenic in both animals and humans. Primary lung tumors have been observed in rats. Epidemiological data, although limited, suggests an increase in lung cancer cases for males employed before 1961 in a factory manufacturing antimony oxide. Antimony oxide dust has been greatly reduced since the 1960s, resulting in a corresponding decrease in lung cancer cases. In contrast, no evidence of carcinogenicity was found in two different lifetime studies of rats and mice exposed to

antimony trioxide via drinking water. However, the overall evidence regarding the potential carcinogenicity of antimony when ingested in drinking water is inconclusive, since these studies are judged inadequate in design because only one dose level was utilized and a maximum tolerated dose level may not have been achieved. On this basis, antimony in drinking water is categorized in Group D, inadequate evidence of carcinogenicity.

EPA is proposing to regulate antimony based on its potential adverse effects reported in the lifetime oral exposure study in rats discussed above. This study showed a statistically significant decrease in longevity and altered blood levels of cholesterol and glucose. EPA is proposing an MCLG of 0.003 mg/l based upon a DWEL of 0.015 mg/l, assuming a drinking water contribution of 20 percent.

$$MCLG = 0.015\ mg/l \times 0.2 = 0.003\ mg/l$$

Public comments are requested on the proposed MCLG for antimony, and specifically on the following issues:

(1) Is potassium antimony tartrate representative of worst-case antimony compounds potentially found in drinking water?

(2) Is antimony/tin solder a significant source of antimony compounds in drinking water?

(3) Are there any other studies that may have an impact on the MCLG?

2. Beryllium

Beryllium is a light, grayish white metal that exhibits the + 2 valence state in the compounds that it forms. Beryllium is obtained primarily from two beryllium ores, bertrandite and beryl, and is processed domestically to produce pure beryllium metal, beryllium alloys, and beryllium compounds (mainly beryllium oxide). Total consumption of beryllium for 1987 was estimated at 315 tons.

Beryllium is an expensive metal, and it is used when its high thermal conductivity and light weight are needed and cannot be achieved by other materials. Beryllium alloys and beryllium oxide are used mainly in electrical, aerospace and defense applications.

There is little information available on the environmental fate of beryllium and its compounds. Beryllium compounds of very low water solubility appear to predominate in soils. Leaching and transport through soils to ground water appears unlikely to be a major pathway of concern. Erosion and bulk transport of soil may bring beryllium to surface waters; however, it is expected that beryllium will occur there in particulate rather than dissolved forms.

*Occurrence and Human Exposure.* Beryllium was included as an analyte in the National Inorganics Radionuclides Survey (NIRS) conducted in 1984–1986. Of 988 ground water supplies in the NIRS for which beryllium data were reported, only 4 revealed measurable levels of beryllium, all between 1 and 2 μg/1 (mean value of 1.25 μg/l). Beryllium was also included among the analytes in the National Organics Monitoring Survey (NOMS) conducted in 1976–1977. No beryllium was found above the detection limits (ranging from 1 to 2 μg/1) in the 91 surface water, 19 ground water, or 3 mixed source supplies.

Limited data are available from EPA's Aerometric Information Retrieval System (AIRS) data base on beryllium in ambient air. Mean values from over 5,500 samples at 50 sites taken between 1982 to 1986 were reported to range from 0.0001–0.0051 $\mu g/m^3$, with a maximum value reported at 0.05 $\mu g/m^3$.

No data are available on the occurrence of beryllium in food, nor is any information available on dietary intake of beryllium.

Because of the limited amount of information available, it is not possible to describe overall human exposure to beryllium, or to assess the relative contributions of various sources. It can be noted, however, that relative to the RfD value calculated for beryllium, the intakes from drinking water and air by the overwhelming majority of the population would appear to be quite small. That is, even at the upper end of the reported values for those media (2 μg/l in drinking water and 0.05 $\mu g/m^3$ in air), the intake for an adult male (70 kg, consuming 2 l/day of water and breathing 23 $m^3$/day) would be only 0.057 μg/kg/day from drinking water and 0.016 μg/kg/day from air.

*Health Effects.* Estimates of acute oral $LD_{50}$ values in rats for beryllium fluoride, beryllium chloride and beryllium sulfate have been reported as 100, 200 and 120 mg Be/kg, respectively. Beryllium compounds are less acutely toxic in animals when oral exposures are compared with other routes of administration. Lower acute oral toxicity has been attributed to the low rate of beryllium absorption from the gastrointestinal tract. Therefore, the majority of ingested beryllium is excreted in the feces. In hamsters, detectable amounts of beryllium were found in the liver, kidneys, lungs and intestines following dietary administration of beryllium sulfate; however, beryllium was found only in the intestine when given as the oxide or metal.

The most common route of exposure to beryllium and its compounds is through the lungs. Once beryllium enters through the lungs, it may be transported to other tissues. The role of mobilization depends on the solubility of the specific compound. Soluble compounds may be transported by the blood and lymph to other tissues, while insoluble compounds tend to remain in the lungs for indefinite periods of time. The most common effect of acute inhalation exposure is chemical pneumonitis. Other reported effects include severe pulmonary reactions as well as changes in the liver, pancreas, spleen, adrenals, kidneys and thyroid.

The only oral study of the effects of beryllium in drinking water that may be considered for the derivation of a DWEL is a lifetime oral study in rats [Schroeder HA and Mitchener M, 1975a. Life-term Studies in Rats: Effects of Aluminum, Barium, Beryllium and Tungsten. J. Nutr. 105(4):421–427]. In this study, male and female rats were administered 5 ppm of beryllium in their drinking water for a lifetime. The only significant change was a slight reduction in body weight in males from 2 to 6 months of age. A NOAEL of 0.538 mg Be/kg body weight can be calculated by multiplying the dose of 5 ppm (5 mg/l) by the average water consumption (0.035 l/day) of rats in this study and dividing by the average rat body weight (0.325 kg) in this study. An RfD of 0.005 mg/kg/day has been derived from this NOAEL by the application of an uncertainty factor of 100, in accordance with NAS/ODW guidelines when using a NOAEL derived from long-term animal studies. From this RfD, a DWEL of 0.2 mg/l has been derived for the 70-kg adult consuming 2 liters of water per day. It should be noted, however, that several weaknesses have been cited in this study such as the presence of other trace elements and minerals including chromium in the drinking water, the use of nonrandomized animals, and the administration of only one dose.

Very few studies have investigated the teratogenic or reproductive effects produced by beryllium exposure. The current teratogenic and reproductive data are inconclusive. The available literature indicates that beryllium has the potential to cause gene mutations, chromosomal aberrations, and sister chromatid exchange in mammalian somatic cells. Beryllium is carcinogenic in laboratory animals when administered by inhalation, intratracheal instillation or intravenous injection. Studies in several animal

species exposed to beryllium by inhalation and injection showed tumors at sites different from that route of exposure. Only very limited work has been performed with long-term oral exposures and the totality of the studies are not adequate to assess the carcinogenic potential from oral exposures. Beryllium studies with oral routes of exposure exhibit tumor formation in animals which are statistically not significant. The statistical insignificance may relate to poor absorption of beryllium from the gastrointestinal tract. It is possible that the maximum tolerated dose was not achieved in the oral experiments. Epidemiological studies of the relationship between beryllium occupational exposure and the development of human cancer, while presenting evidence that a relationship may exist, have not been sufficient to exclude other possible explanations. Therefore, the human evidence is considered inadequate for determining a dose-response relationship between beryllium exposure and cancer in humans. EPA has classified beryllium in Group B2, probable human carcinogen, based on the positive carcinogenic findings in several animal species exposed to beryllium by inhalation and injection, tumor induction by several beryllium compounds and a concern for beryllium genotoxic activity in animal and human short-term assays.

EPA's Cancer Assessment Group has derived a tentative cancer risk estimate for beryllium. For a 70-kg adult drinking 2 liters of water per day, the upper-limit individual risk of $10^{-4}$ corresponds to a concentration of beryllium of 0.001 mg/l. The International Agency for Cancer Research (IARC, 1987) has classified beryllium and beryllium compounds in group 2A, indicating that there is sufficient evidence of carcinogenicity in animals and limited evidence of carcinogenicity in humans.

The proposed MCLG for beryllium is zero based on the evidence of carcinogenic potential. The Agency requests comment on the regulation of beryllium in drinking water based on the discussion above, specifically as a B2 carcinogen, given that adequate oral exposure bioassays are not available to conclusively demonstrate a dose-response relationship.

3. Cyanide

Cyanides are a group of organic and inorganic compounds that contain the cyanide (CN) radical. The most common cyanide, hydrogen cyanide (HCN), is a colorless, flammable liquid or gas that is highly volatile and reactive. Alkali-metal cyanides are soluble in water while alkaline earth metal cyanides are not. Alkali-metal salts of cyanides are strongly hydrolized in aqueous solution. Some metal cyanides will liberate HCN when exposed to sunlight. A variety of cyanides are used in industry as feedstocks, due to the anion's ability to form ionic salts and to act as a ligand for various metals. Cyanides are used in electroplating, steel processing and manufacturing, plastics, synthetic fibers, mining, chemical products, and fertilizer and farm products. Though cyanides are used widely in various industrial and chemical manufacturing processes, overall quantitative data on the production of compounds containing cyanides are not available.

*Occurrence and Human Exposure.* The Community Water Supply Study (CWSS) was conducted in 1969 by the U.S. Public Health Service to assess drinking water quality and the adequacy of drinking water supply systems throughout the United States. The study sampled 969 representative public utilities serving a total population of approximately 18 million people. Of 673 utilities tested for cyanide using a ground water source, 641 contained no detectable levels of cyanide. The remaining 32 utilities contained average cyanide concentrations ranging from 0.8 to 8.0 μg/l. Of 106 utilities tested for cyanide using a surface water source, four were found to contain average cyanide concentrations ranging from 3.0 to 6.0 μg/l.

The EPA Office of Air Quality Planning and Standards (OAQPS) compiles monitoring data on ambient air from urban, suburban, rural, and source dominated sites throughout the United States. During 1980 and 1981, cyanide was observed in 1,479 samples from 23 sites with a range of positive values from 0.01 to 0.1 μg/m³.

It is uncommon to find cyanide in foods in the United States, though cyanogenic compounds occur naturally in plants such as soybeans, lima beans, and cassava. According to the U.S. Public Health Service toxicological profile for cyanide, as many as 1,000 plants, including edible items such as almonds, sorghum, cassava, soybeans, spinach, lima beans, sweet potatoes, maize, millet, sugar cane, and bamboo shoots have the capability to produce hydrogen cyanide. Levels of cyanide in some of these foods are as follows: cereal grains and their products, 0.001 to 0.45 μg/g; soy protein products, 0.07 to 0.3 μg/g; cassava, 1 μg/g; lima beans, 3 μg/g. This data, however, is insufficient to estimate average daily dietary intake of cyanide.

The available data on cyanide is not adequate for describing total exposure or the relative source contributions for the general population. It would appear, however, that even at the upper end of the range of air values reported (0.1 μg/m³), intake for an adult male (70 kg, 23 m³/day ventilation rate) is only 0.03 μg/kg/day, less than 0.2% of the RfD. Similarly, if cyanide were present in drinking water at the upper end of the range reported in the CWSS (8 μg/l), it would contribute only about 1% of the calculated RfD.

*Health Effects.* The acute oral $LD_{50}$ for cyanide range from 1 to 4 mg CN/kg body weight in test animals. The toxic effects of cyanide occur due to the combination of cyanide with cytochrome in the cell, with resulting hypoxia. Signs of acute poisoning by cyanide include rapid breathing, gasping, tremors, and convulsions, and death may result. Cyanides are readily absorbed from the lungs, the GI tract and the skin by animals and humans. Following uptake by blood, cyanide is rapidly distributed throughout the body. Relatively high levels of cyanide have been found in spleen, brain and liver of humans fatally poisoned with cyanide. However, cyanide does not appear to accumulate in blood and tissues following chronic exposure. The major route of detoxification of cyanide is via rhodanese, an enzyme in the liver which metabolizes cyanide to form a less toxic compound, thiocyanate. The major route of cyanide elimination from the body is via urinary excretion of the thiocyanate.

The basis for the derivation of the DWEL for cyanide is a 2-year dietary study in rats [Howard JW and Hanzal RF. 1955. Chronic Toxicity for Rats of Food Treated with Hydrogen Cyanide. J. Agric. Food Chem. 3:325–329]. In this study, 10 animals/sex/group were administered diets containing 0, 100 or 300 mg HCN/kg. Results of the residue analyses indicated that in 2 days the dietary concentration of HCN fell, on an average, from 100 to 51.9 mg/kg diet for the low-dose level and from 300 to 80.1 mg/kg diet for the high-dose level. The average daily low and high concentrations due to volatilization were approximately 76 and 190 mg HCN/kg diet, respectively. The estimated daily doses were 3.6 and 4.6 mg $CN^-$/kg body weight for the low-dose males and females, respectively, and 7.5 and 10.8 mg $CN^-$/kg body weight for the high-dose males and females, respectively. There were no clinical and histopathological effects of any kind observed at these dose levels. Thus, the daily doses of 3.6 and 7.5 mg $CN^-$/kg body weight (for males) and 4.6 and 10.8

mg $CN^-$/kg body weight (for females) appear to be no-effect levels for 2-year cyanide feeding to rats. In deriving the DWEL from this study, EPA has selected the highest of these dose levels (i.e., 10.8 mg $CN^-$/kg body weight) as the NOAEL for absence of clinical and histological effects. Based on this NOAEL, a DWEL of 0.76 mg/l has been calculated for a 70-kg adult consuming 2 liters of drinking water per day, by using an uncertainty factor of 100 (in accordance with NAS/ODW guidelines for a lifetime animal study), and by using an additional modifying factor of 5 based on the possibility that cyanide would be absorbed more readily from drinking water than from food.

$$DWEL = \frac{10.8\ mg/kg/day \times 70\ kg}{5 \times 100 \times 2\ l/day} = 0.76\ mg/l$$

Potassium cyanide was negative for mutagenicity in *Salmonella typhimurium* and *Bacillus subtilis*. Pertinent data regarding the carcinogenicity of cyanides have not been found in the literature. The IARC has not evaluated the carcinogenic potential of cyanide. Applying the criteria described in EPA's Guidelines for Carcinogenic Risk Assessment, cyanide is classified in Group D since there are insufficient human and animal studies for an assessment of its carcinogenicity.

The WHO guideline for cyanide in drinking water is 0.1 mg/l. This value was based upon 4.7 mg cyanide/day, which has been recorded not to be harmful to humans. Assuming consumption of 2 liters of water per day, the WHO concluded that cyanide concentrations of 2.35 mg/l could be consumed in water. Allowing for a safety factor, the WHO considered a guideline value of 0.1 mg/l to be reasonable.

EPA is proposing an MCLG for cyanide of 0.2 mg/l, based on the DWEL derived from the Howard and Hanzal study of 0.76 mg/l and assuming a relative source contribution of 20% due to exposure from drinking water.

$MCLG = 0.76\ mg/l \times 0.2 = 0.2\ mg/l$

Public comments are requested on the appropriateness of this MCLG.

4. Nickel

Nickel is a silvery-white metal. It is rarely found in nature in its pure form, but is found in silicate, sulfide and occasionally arsenide ores. Nickel can form compounds in which it is present in the +4, +3, +2, +1, 0, and −1 valence states, but of these the +2 is the most commonly occurring. Nickel metal and some common nickel compounds (e.g., nickel oxide) are essentially insoluble in water; however, many nickel compounds (salts and complexes) are quite water soluble.

The reported consumption of nickel in 1987 was 250,000 tons, including primary, scrap recovery, net imports and secondary recovery. Elemental nickel metal is the most commonly used form of nickel. It is used in stainless steel and other ferrous alloys, non-ferrous alloys, and electroplating. A number of commercially important nickel compounds are produced, including nickel oxide, nickel sulfate, nickel nitrate hexahydrate, nickel carbonate, nickel hydroxide, nickel halides, nickel sulfide and nickel carbonyl. Nickel compounds find uses in electroplating, battery production, chemical manufacturing (as intermediates and as catalysts), ceramics, and glass coloration.

The release of nickel to the environment can occur as a result of the mining and smelting of nickel ores, from the subsequent refining to produce nickel metal and the production of nickel alloys and nickel compounds, and from the use of some nickel compounds. Other important sources of the release of nickel into the environment (primarily into the atmosphere) are the combustion of coal and oil, and municipal and sewage sludge incineration. The only data on environmental releases of nickel are for atmospheric emissions, for which it has been estimated that total emissions from anthropogenic and natural sources during the mid-1970s were approximately $5.1 \times 10^7$ kg/yr.

*Occurrence and Human Exposure.* The largest and most recent set of data on the occurrence of nickel in public water supplies using ground water is the National Inorganics and Radionuclides Survey (NIRS), conducted between 1984 and 1986. Of 988 sites sampled, 47 (approximately 5%) had levels above the minimum reportable concentration of 5 μg/l. The positive values ranged from 5 to 153 μg/l (although only 2 sites had levels above 50 μg/l). Older data sets on nickel in ground water supplies include the National Organics Monitoring Survey (NOMS) and the 1969 Community Water Supply Study (CWSS). Of 19 ground water supplies sampled in NOMS, none had detectable levels of nickel; however, the detection limits in NOMS ranged from 25–50 μg/l. In the CWSS, where the detection limit appeared to be less than 1 μg/l, nickel was observed in 582 of 676 ground water supplies sampled (about 86%), with a range of 0.2 to 12 μg/l.

Data on levels of nickel in drinking water from surface water sources is limited to the NOMS and CWSS data sets. Of 91 surface water systems sampled in NOMS, nickel was found above the 25–50 μg/l detection limits on only one occasion (424 μg/l). However, additional sampling at the same site reported no nickel (i.e., <50 μg/l) suggesting the one high value may have been invalid. In the CWSS, the results for surface water were similar to those found in the CWSS for ground water. Of 109 surface water sites sampled, 92 had measurable levels (about 84%) with a range of positive values of 0.2 to 8 μg/l.

Data from EPA's AIRS data base indicate that in 6,329 air samples from 76 sites taken between 1980 and 1986, the overall range of positive values was 0.002 to 1.330 μg/m³, with the range of mean values being 0.002 to 0.05 μg/m³. A United States Public Health Service (USPHS) profile indicated that typical nickel concentrations in air range from 0.001 to 0.02 μg/m³ in rural areas and 0.01 to 0.06 μg/m³ in urban areas.

Nickel is found in most foods sampled as part of the FDA Total Diet Studies at levels ranging from 2 to 2,000 ppb (μg/kg). Based on a number of studies from the 1960s and 1970s, NAS reported that average dietary intake of nickel ranges from 165 to 500 μg/day. A study by USDA on nickel levels in the human diet reported that average values across all food groups range from 608 to 714 ppb. Using the high value (rounded to 700 ppb) and an assumed intake of approximately 2 kg/day of food, daily intake of 1,400 μg/day is calculated as a high estimate of dietary intake.

Based on the available data, it appears that food is by far the predominant source of nickel intake, with air the least important and drinking water providing a typically small contribution. If nickel is present at 5 μg/l in drinking water (and typically nickel appears to be present at levels below 5 μg/l), an adult male consuming 2 l/day

of water would be exposed to 10 μg/day. Even at the low end of the estimated dietary intake range of 165 to 1,400 μg/day (and assuming air to contribute 1 μg/day), drinking water having nickel present at 5 μg/l would contribute only about 6% of total intake.

*Health Effects.* The acute oral $LD_{50}$ for nickel acetate in rats and mice has been reported at 120 mg Ni/kg and 140 mg Ni/kg, respectively. The oral $LD_{50}$ for nickel oxide is greater than 3,500 mg Ni/kg. Nickel is poorly absorbed from the GI tract with the majority of nickel excreted in the feces. A subchronic rat study on nickel chloride in feed has shown depressed body weight gain at 50 mg/kg/day, and lethargy and ataxia at 100 mg/kg/day. Another subchronic mouse study on nickel sulfate has shown decreased thymus weight and bone-marrow cellularity at 100 and 150 mg/kg/day.

The study selected for the determination of the DWEL is a 2-year feeding study in rats [Ambrose AM, Larson PS, Borzelleca JK and Hennigan JR. 1976. Long-term Toxicologic Assessment of Nickel in Rats and Dogs. J. Food Sci. Technol. 13:181–187]. In this study, rats were given 0, 100, 1,000 or 2,500 ppm nickel (as nickel sulfate hexahydrate) in the diet. These daily doses are calculated to be approximately 0, 5, 50 or 125 mg Ni/kg body weight. No significant effects were reported at 100 ppm nickel (5 mg Ni/kg body weight). Body weight was significantly decreased at all measurement times (1, 3, 6, 13, 26, 52, 78 and 104 weeks) in both male and female rats fed 2,500 ppm nickel (125 mg Ni/kg bw) compared with controls. Body weight was also reduced at 1,000 ppm (50 mg Ni/kg bw); this reduction was significant for females at 6 weeks and at greater than 26 weeks. In males, body weight was reduced in the 1,000 ppm group significantly only at the 52-week determination. The investigators indicated that the decreased body weight may be due in part to decreased food consumption. Groups of female rats on the 1,000 or 2,500 ppm nickel diets (50 and 125 mg Ni/kg bw, respectively) had significantly higher heart-to-body weight ratios and significantly lower liver-to-body weight ratios than controls. The dose of 1,000 ppm (50 mg Ni/kg bw) represents a LOAEL from this study, while the 100 ppm (5 mg Ni/kg bw) dose is a NOAEL.

Ambrose et al. (1976) also conducted a three-generation rat reproductive study with nickel sulfate hexahydrate in feed. However, this study had several design limitations including a small sample size and use of pups rather than litters as the unit for comparison (the incidence of stillborn pups can be markedly elevated by a single stillborn litter). EPA believes that the results from this study are equivocal and do not clearly define a NOAEL or LOAEL. The incidence of stillborn pups did not exhibit a consistent dose-response relationship, and the elevated incidences of stillborn pups observed in the first generation did not occur in the subsequent two generations. In another two-generation rat reproductive study with nickel chloride in drinking water [RTI (Research Triangle Institute). 1987. Two-Generation Reproduction and Fertility Study of Nickel Chloride Administered to CD Rats in Drinking Water. Report submitted to the Office of Solid Waste, U.S. Environmental Protection Agency, Washington, DC], increased mortality associated with pregnancy complications was reported in all dosed groups (7, 30, and 50 mg/kg/day). However, because of problems with temperature control in the animal housing rooms, the results of this study are questionable. Adverse effects could have been caused either by nickel's toxicity or by thermal stress and dehydration. Since complications were seen in all dosed groups, it is not self-evident that adverse effects were treatment-related.

The data from the two-year feeding study in rats conducted by Ambrose et al. (1976) has been used to calculate the DWEL as follows. The dose of 5 mg/kg/day represents the NOAEL in this study. Based on this NOAEL, a DWEL of 0.58 mg/l has been calculated for a 70-kg adult consuming 2 liters of drinking water per day, by using an uncertainty factor of 100 (per NAS/ODW guidelines) and by using an additional modifying factor of 3. This additional modifying factor was used because of deficiencies in the reproductive studies cited earlier which is an area of concern for nickel exposure.

$$\text{DWEL} = \frac{5\ \text{mg/kg/day} \times 70\ \text{kg}}{3 \times 100 \times 2\ \text{l/day}} = 0.58\ \text{mg/l}$$

It should be noted that both EPA and the World Health Organization are reviewing some studies indicating that ingestion of nickel salts in foods or water can exacerbate dermatitis in humans. These studies [Christensen OB, Holler H. 1975. External and internal exposure to the antigen in the hand eczema of nickel allergy. Contact Dermatitis 1: 136–141; Gawkrodger DJ, Cook SW, Fell GS, Hunter JAA. 1986. Nickel dermatitis: the reaction to oral nickel challenge. British Journal of Dermatology 115: 33–38; Nielsen GD, Flyvholm M. 1984. Risks of high nickel intake with diet. In Sunderman FW et al. (eds.) Nickel in the human environment, IARC Scientific Publications No. 53. Lyon: International Agency for Research on Cancer, pages 333–338.] are included in the record for this proposal. EPA requests comments on whether these studies and the associated endpoint should be relied upon in determining the DWEL (and the MCLG) for nickel. In addition, EPA is presently reviewing studies on adverse effects of nickel on reproduction in laboratory animals to determine whether a NOAEL can be established for this endpoint [George EL, Stober JA, Kimmel GL, Smith 1989. The developmental effects of nickel chloride in drinking water. The Toxicologist 9(1): 272. (abstract); Price CJ. 1988. Research Triangle Institute. Two-generation reproduction and fertility study of nickel chloride administered to CD rats in the drinking water. Prepared for the Office of Solid Waste Management, U.S. Environmental Protection Agency, Washington, DC.]. These studies are also included in the record for this proposal and EPA requests comments on whether these studies should be relied upon in determining the DWEL (and the MCLG) for nickel. The MCLG for nickel may change if EPA determines after review that any of the above studies are appropriate for setting the MCLG.

Nickel chloride was negative for mutagenicity in *Escherichia coli* and *Bacillus subtilis*, while nickel chloride and nickel sulfate have been shown to be mutagenic or weakly mutagenic in eakaryotic test systems. Nickel was negative for carcinogenicity when tested at low concentrations (5 ppm) in drinking water in both rats and mice [Schroeder HA, Balassa JJ and Vinton Jr WH. 1964. Chromium, Lead, Cadmium, Nickel and Titanium in Mice. Effect on Mortality, Tumors and Tissue Levels. J. Nutr. 83:239–250; Schroeder HA, Mitchener M and Nason AP. 1974. Life-term Effects of Metal in Rats: Survival, Tumors, Interactions with Trace Elements and Tissue Levels. J. Nutr. 104:239–243; Schroeder HA and Mitchener M. 1975. Life-term Effects of Mercury, Methyl Mercury and Nine Other Trace Metals on Mice. J. Nutr. 105:452–458]. However, no oral carcinogenicity bioassays using higher nickel concentrations are available,

even though dietary nickel remains the largest source of nickel exposure to humans.

Thus, there is no current evidence to suggest that a carcinogenic response is induced in humans or laboratory animals by the ingestion of nickel compounds. Several nickel compounds (metallic nickel, nickel subsulfide and nickel carbonyl) have a carcinogenic potential when exposure occurs by inhalation or parenteral routes. EPA's CRAVE has classified nickel and nickel subsulfide as a Group A carcinogen based on human epidemiological data from workplace exposure (nickel subsulfide is a major component of nickel refinery dust from pyrometallurgical sulfide nickel matte refineries). However, nickel did not appear to be carcinogenic in three studies in laboratory animals by the oral route of exposure. Therefore, EPA proposes to regulate nickel in drinking water as if it were in Group D.

EPA is proposing an MCLG of 0.1 mg/l based upon the DWEL of 0.58 mg/l and an assumed maximum drinking water contribution of 20 percent.

$$MCLG = 0.58\ mg/l \times 0.2 = 0.1\ mg/l$$

Public comments are requested on the MCLG for nickel, and on its carcinogenic classification for drinking water purposes.

5. Sulfate

Sulfate is the divalent cation $SO_4^{=}$. It exists in a variety of inorganic compounds and a variety of salts formed with metal cations. Sulfate salts with the lower molecular weight alkali metals such as sodium, potassium, and magnesium are very water soluble and are often found in natural waters. Salts of higher molecular weight metals such as barium, iron or lead have very low water solubility.

Specific data on the total production of all sulfates is not available, but is expected to be considerable (thousands of tons per year); the use of sodium sulfate alone in 1987 was reported to be 792 tons. Sulfates are used for a variety of commercial purposes, including pickle liquor (sulfuric acid) for steel and metal industries, as a feedstock or reagent in manufacturing processes, and as an end-product such as copper sulfate, which is used as a fungicide and algicide.

Sulfates occur in the environment as a result of both natural processes and human activities. Primary sources of sulfate in the natural environment are soil sediments and rocks. Sulfates may enter surface and ground water as a result of the discharge or disposal of sulfate-containing wastes. In addition, sulfur oxides produced during the combustion of fossil fuels are transformed to sulfuric acid in the atmosphere. Through precipitation (i.e., acid rain), the sulfuric acid can enter surface waters, lowering the pH and raising sulfate levels.

*Occurrence and Human Exposure.* Two national studies provide data on the occurrence of sulfate in public drinking water supplies. The 1969 Community Water Study reported sulfate to be present in 645 of 658 ground water supplies and all 106 surface water supplies sampled, with an apparent detection limit of 1 mg/l. For the ground water supplies, the mean of the positives was approximately 43 mg/l (range of 1 to 480 mg/l), and for surface water it was approximately 49 mg/l (range of 2 to 358 mg/l). The Rural Water Survey (RWS) conducted in the late 1970s reported a lower frequency of positives and a higher mean of the positive values, but this probably reflects the higher detection limit of 15 mg/l. In the RWS, sulfate was reported to be present in 271 of 494 ground water supplies with a mean of about 98 mg/l (range of 10 to 1,000 mg/l) for the positives. In surface water, it was found in 101 of 154 supplies, with a mean of 53 mg/l (range of 15 to 321 mg/l) for the positives.

As noted above, sulfate can be formed in the atmosphere, and EPA has reported ambient levels from 1980–1986 to range from 0.2 to 199.4 $\mu g/m^3$ in over 54,000 samples from 381 sites. The range of mean ambient air levels from these sites was reported to be 1.4 to 20 $\mu g/m^3$.

No information is available on the occurrence of sulfate in foods, nor are there any estimates available of dietary intake.

An assessment of total human exposure and the relative source contribution for sulfate is difficult because of the lack of dietary intake information. With respect to the range of typical occurrence levels in drinking water and air, it appears that drinking water exposure can result in significantly higher intakes of sulfate than air.

*Health Effects.* As discussed in the November 13, 1985 proposal, there is no evidence of adverse chronic health effects in animals or humans from exposure to sulfate in drinking water. The only adverse effects noted from exposure to high levels of sulfate are diarrhea and dehydration. Infants appear to be more sensitive to sulfate than adults. There are three documented case histories of infants, 5 to 12 months old, that were given formulas prepared with water containing 630 to 1,150 mg sulfate/l. These infants developed diarrhea shortly after they ingested the formula, but the effect was reversed after use of the high sulfate water was discontinued. In adults, similar effects have been observed for transient situations, but individuals have become acclimated to high sulfate levels in a short period of time resulting in a cessation of ill effects.

There are limited data on the acute effects of sulfate. Peterson (1951) compiled the results of questionnaires sent to North Dakota residents and concluded a level of 500 mg of sulfate per liter would not exert adverse physiological effects. Moore (1952) replotted the Peterson data and found that the percentage of people reporting laxative effects increased at sulfate concentrations above 500 mg/l. At concentrations of sulfate above 1,000 mg/l, the majority of respondents noted a laxative effect.

Animal studies suggest that sulfate is not mutagenic, carcinogenic or teratogenic in mammals. Since there are no long-term effects observed in animals or humans, several guidance levels have been suggested for sulfate in the past based on the potentially acute effects of sulfate, or on taste and palatability. The current EPA national secondary drinking water standard for sulfate is 250 mg/l based upon aesthetic (i.e., taste and odor) effects. The November 13, 1985 proposal recommended that this secondary standard be continued to limit the intake of sulfate. That notice did not propose an MCLG for sulfate; instead, a guidance level of 400 mg/l was suggested to protect infants. This suggested level was derived based upon case histories which advise parents not to use water from wells with sulfate concentrations greater than 400 to 500 mg/l to prepare infant formula. The World Health Organization (WHO) has recommended an upper limit of 400 mg/l in drinking water. Also, the Canadian guideline for the maximum acceptable concentration of sulfate in drinking water is 500 mg/l. The U.S. Army has established a standard of 300 or 100 mg/l, depending on anticipated water consumption. For personnel in arid climates who consume up to 15 liters of water per day, the Army standard is 100 mg/l. For soldiers serving under less strenuous conditions who consume 5 liters of water per day, the standard is 300 mg/l.

EPA believes that the MCLG for sulfate should be based on the potential for gastroenteritis in infants, who appear to be the most sensitive population. Gastroenteritis may result in a risk of dehydration, which has been fatal for infants in many third world countries. Although such infant fatalities are not likely to occur in the United

States, a standard to limit the intake of sulfate will protect the high-risk infant population from adverse effects.

The available health data indicate that chronic exposure to sulfate is not harmful to health. In addition, there are no acceptable studies to set a chronic DWEL. Therefore, EPA has not derived a chronic DWEL for sulfate. An acute DWEL may be set by using documented case histories of infants that developed diarrhea after ingesting formula prepared with water containing 630 to 1,150 mg/l of sulfate [Chien L, Robertson H, Gerrard JW. 1968. Infantile gastroenteritis due to water with high sulfate content. Can. Med. Assoc. J. 99:102–104].

The concentration of 630 mg/l, which was obtained from the most sensitive population (i.e., infants), may be considered the LOAEL for sulfate. This LOAEL has been used to derive a proposed MCLG for sulfate. EPA has considered several potential MCLGs for sulfate in the concentration range of 200 to 500 mg/l, which is a range considered to protect infants. This range was considered for the MCLG because various previously established standards have been set in this general range.

*Proposed MCLG.* EPA is proposing two alternative options for the sulfate MCLG based on the available health information. The first option is to set the MCLG at 400 mg/l. The basis for this option is that the Science Advisory Board reviewed the available data for sulfate and concluded that an MCLG of 400 mg/l seems appropriate since the mode of action for sulfate is fairly well known and some human data are available which indicate that ill effects occur only at concentrations above 600 mg/l. Their recommendation agrees with the World Health Organization (WHO) guidelines, since WHO has established a standard for sulfate of 400 mg/l.

The second option is to set the MCLG at 500 mg/l. As a basis for choosing this option, EPA notes that the survey conducted by Peterson (1951) and evaluated by Moore (1952) indicated that the number of people reporting laxative effects greatly increased at sulfate concentrations above 500 mg/l. In addition, the Canadian guideline for the maximum acceptable concentration of sulfate is 500 mg/l. The Canadian guideline concludes that this level appears to be adequate for protection against physiological effects. Also, acclimatization to high sulfate levels occurs within a short time after initial exposure.

EPA believes that the available information does not indicate adverse effects below 630 mg/l for sensitive individuals (i.e., infants). EPA requests comments on the two options being considered (400 and 500 mg/l) and on whether these options would provide an adequate margin of safety against adverse health effects. In addition, EPA requests comment on whether one of the other levels considered (200 and 300 mg/l) or any other levels would be more appropriate.

EPA does not plan to change the present secondary maximum contaminant level (SMCL) for sulfate. The SMCL is 250 mg/l and is based on aesthetic effects (i.e., taste and odor). EPA also requests comments on whether the SMCL of 250 mg/l should remain in effect.

6. Thallium

Thallium occurs in the natural environment in sulfides or selenides containing various proportions of copper, silver, arsenic, and lead. The main valence states of thallium are +1 and +3. Trivalent thallium is the predominant valence state of ionic thallium in natural waters. At present, there is no domestic production of thallium either from ores or reclaimed from scrap. Approximately 4,500 pounds (by thallium content) of thallium and thallium compounds were imported in 1987. More than half of thallium consumption is in the electronics industry, with the remainder in pharmaceuticals, alloys and glass manufacturing. Thallium is also finding applications in high temperature superconductors.

*Occurrence and Human Exposure.* Data collected by EPA on thallium levels in ambient air showed no occurrence above the reporting limit of 0.06 μg/m3 in just over 1,400 samples from 22 sites sampled in 1980–81. A mean value of 0.03 $\mu g/m^3$ was reported, reflecting the assignment of an amount equal to one-half the reporting limit (0.06 $\mu g/m^3$) to those samples where thallium was detected, but was not quantifiable. Assuming a ventilation rate of 23 $m^3$/day for a 70-kg adult male, and exposure to 0.03 $\mu g/m^3$ using the above assumption, the daily intake from ambient air would be approximately 0.01 μg/kg/day.

No data are available on the levels of thallium in food or on dietary intake of thallium.

Drinking water occurrence data for thallium are limited to the results of the National Inorganics and Radionuclides Survey (NIRS). Of 989 ground water supplies reporting thallium results, all but one reported no occurrence, with a minimum reportable concentration of 8 μg/l. The single positive value, found in a very small supply, was reported to be 10 μg/l.

Because of the limited data available on the occurrence of thallium in air, food and drinking water, it is not possible to describe total exposure or the relative source contributions.

*Health effects.* The acute oral $LD_{50}$ of various thallous salts and thallic oxide in mice and rats ranges from 16 to 47 mg thallium/kg body weight. Toxic effects in test animals include degenerative changes in mitochondria of the kidneys, liver, brain, and intestines. In humans poisoned after thallium ingestion, symptoms may range from mild peripheral neuropathy to irreversible coma and death. Thallous salts are well absorbed from the GI tract (>60% in rats, dogs, and humans). Following absorption, thallium is rapidly and unevenly distributed throughout the body in mammals; transplacental transfer is also rapid. Accumulation of thallium in the kidneys and testes occurs in rats after subchronic thallium administration.

The available studies considered for the derivation of the MCLG for thallium are all subchronic studies in rats. The study selected for the calculation of the MCLG involved oral administration of approximately 0.008 to 0.20 mg thallium/kg/day in the diet for 13 weeks [Stoltz ML, Stedham MA, Brown LK, Laber L, El-hawari AM. 1986. Midwest Research Institute. Final Report. Subchronic (90-day) Toxicity of Thallium (I) Sulfate (CAS No. 7446–18–6) in Sprague-Dawley Rats. Project No. 8702–L(18). November 21, 1986]. Significant changes in blood chemistry which included increases in serum glutamic-oxaloacetic transaminase (SGOT), lactic dehydrogenase (LDH), and sodium levels were reported. However, gross pathologic and light-microscopic elevation of organs and tissues did not reveal any significant treatment-related effects. The only gross finding at necropsy thought to be treatment-related was alopecia; however, light-microscopic evaluation did not reveal any histopathologic alteration that would indicate damage to hair follicles. The dose of 0.20 mg thallium/kg/day is considered a NOAEL, based on the absence of gross and light-microscopic histopathological effects. Although no effects were observed, some uncertainty remains as to whether any lesions would have been found at the electron microscope level.

Another study [Formigli L, Scelsi R, Poggi P, Gregotti C, Di Nucci A, Sabbioni E, Gotlardi L, Manzo L. 1986. Thallium-induced testicular toxicity in the rat. Environ. Res. 40:531–539]

indicates that 0.74 mg thallium/kg/day administered in the drinking water for 8 weeks decreased sperm motility, produced vacuolization of rat Sertoli cells and increased the number of immature epididymal sperm cells. The possibility that this effect may occur at doses at or below the selected NOAEL value of 0.2 mg thallium/kg/day cannot be ruled out; only one dose level was studied. Thus, in view of the uncertainty associated with the selected NOAEL value of 0.2 mg thallium/kg/day, an uncertainty factor of 3 has been introduced in the calculation of the DWEL based on the lack of adequate reproductive data. This factor of 3 is in addition to the factor of 1,000 which is used with a NOAEL derived from an animal study of less-than-lifetime duration. The resulting DWEL for the 70 kg adult consuming 2 liters of water per day is 0.0023 mg/l based on the selected NOAEL.

$$\text{DWEL} = \frac{0.20\ \text{mg/kg/day} \times 70\ \text{kg}}{3 \times 1{,}000 \times 2\ \text{l/day}} = 0.0023\ \text{mg/l}$$

Thallium compounds have not been evaluated in gene mutation assays that are suitable for the detection of metal mutagens. However, a number of genotoxicity assays indicate that thallium is genotoxic and has the potential to interfere with a wide variety of mechanisms to maintain genetic integrity. No studies are presently available on the carcinogenicity of thallium. Therefore, based on the lack of data, EPA has classified this contaminant in Group D: Inadequate evidence of human carcinogenicity.

The MCLG for thallium is proposed at 0.0005 mg/l which was calculated on the basis of the DWEL of 0.0023 mg/l, and assuming a 20 percent drinking water contribution to total exposure.

$\text{MCLG} = 0.0023\ \text{mg/l} \times 0.2 = 0.0005\ \text{mg/l}$

There is some concern that the MCLG, which incorporates a 3,000-fold uncertainty factor, is overly conservative. Public comments are requested on whether a lower uncertainty factor is justified based on the available toxicity data.

*E. Proposed MCLGs for Organic Chemicals*

1. Adipates [Di(ethylhexyl) adipate]

Di(2-ethylhexyl) adipate [DEHA; CAS No. 103–23–1] is the most widely used adipate. EPA estimates that 37 million pounds of DEHA were produced in the U.S. in 1985. The information provided in this proposal is based on DEHA because of its importance in terms of high production volume, its known adverse health effects, and because there is very little toxicity data on the effects of other adipates. DEHA has low solubility in water and low vapor pressure. It is used primarily as a plasticizer in a variety of common products including synthetic rubber, food packaging materials, and cosmetics. DEHA has a high affinity for soil particles and it biodegrades rapidly in aerobic soils; thus, it is not expected to pose a threat to ground waters.

*Occurrence and Human Exposure.* No national, regional or State data are available that describe the occurrence of DEHA in drinking water from ground water or surface water sources. Data are also not available on the occurrence of DEHA in ambient air. No national or combined regional studies are available that document the presence of DEHA in food. The Total Diet Study of 234 food items conducted by the U.S. Food and Drug Administration (FDA) in FY 82–88 did not include DEHA in its group of selected chemicals. DEHA was reported in an unspecified finished drinking water at a maximum concentration of 20 μg/l. DEHA has also been detected at concentrations from 1 to 30 μg/l in river water.

Because of the lack of data available on the occurrence of DEHA in drinking water, air and food, it is not possible to describe total exposure or the relative source contributions.

*Health Effects.* DEHA is relatively nontoxic, with oral $LD_{50}$ values reported in the range of 9 to 46 g/kg. Animal studies with rats, mice and monkeys indicate that DEHA is readily absorbed and extensively metabolized following oral administration. In mice, absorption via the GI tract is apparently faster in females than in males. In the GI tract, DEHA is hydrolyzed to monoethylhexyl adipate and adipic acid with the release of 2-ethylhexanol. DEHA residues distribute throughout the body, with no preferential retention in any tissue. DEHA is rapidly excreted, primarily in the urine, and there is no bioaccumulation.

A lifetime feeding study in rats and mice [NTP. 1982. National Toxicology Program. Carcinogenesis bioassay of di(ethylhexyl)adipate (CAS No. 103–23–1 in F–344 rats and $B6C3F_1$ mice (feed study). Technical Report Series No. 212] has been selected to serve as the basis for the calculation of the DWEL because it is a dose-response study which identifies a NOAEL based on a decrease in body growth. This is the only chronic study identified in the literature. In this study, groups of 50 male and 50 female F–344 rats (5 weeks old) or $B6C3F_1$ mice (6 weeks old) were fed diets containing 0, 12, or 25 g DEHA/kg food for 2 years. The high dose (25 g DEHA/kg food) produced a marked decrease in body weight gain in both rats and mice, ranging from about 18 to 36% compared to controls. A slight decrease of body weight gain was seen in both rats and mice at the low dose (12 g DEHA/kg food), although this effect was not significant. The daily intake at 12 g DEHA/kg food ranged from 0.7 to 2.9 g/kg/day. Therefore, 0.7 g/kg/day has been selected as the NOAEL in this study. Based on this NOAEL, a DWEL of 25 mg/l has been calculated for a 70-kg adult consuming 2 liters of water per day, using an uncertainty factor of 100, in accordance with NAS/ODW guidelines for use with a NOAEL derived from an animal study, and an additional uncertainty factor of 10 to account for lack of good reproductive effects data.

$$\text{DWEL} = \frac{700\ \text{mg/kg/day} \times 70\ \text{kg}}{10 \times 100 \times 2\ \text{l/day}} = 25\ \text{mg/l}$$

A number of genetic toxicity assays including the Ames test, mouse lymphoma, unscheduled DNA synthesis, mouse micronucleous and BALB 3T3 transformation have turned out negative. The National Toxicity Program [NTP, 1982] evaluated the carcinogenic potential of DEHA in mice and rats in a 2-year feeding study. In this study, two groups of 50 male and 50 female $B6C3F_1$ mice, initially 6 weeks old, were fed diets containing 12 or 25 g DEHA/kg food for 106 weeks. A control group of 50 male and 50 female mice was used. Survival rates at the end of the study

ranged from 64 percent in treated males to 84 percent in control female mice. Statistically significant increases in hepatocellular adenomas occurred in male mice at the high dose and in a dose-related trend. While increases in hepatocellular carcinomas were also observed at both dose levels, the increases were not statistically significant. When compared with the incidence in historical laboratory control mice, however, the liver tumors in male mice were not clearly compound-related. Statistically significant increases in the incidence of hepatocellular carcinomas were observed in both low- and high-dose females. In females, times to observation of the first hepatocellular tumors were 106 weeks, 85, and 79 weeks in the control, low-, and high-dose groups, respectively. No other tumor types related to the treatment were observed. In a similar study in F-344 rats, no carcinogenic effects were observed. Structure-activity studies have indicated that other 2-ethylhexyl compounds (e.g., phthalates) may be carcinogenic. Based on the weight-of-evidence, EPA has classified DEHA in Group C: Possible human carcinogen.

EPA is proposing an MCLG of 0.5 mg/l for DEHA based on the DWSL of 25 mg/l, an additional uncertainty factor of 10 in accordance with ODW policy for Class C carcinogens, and an assumed drinking water contribution of 20 percent to total exposure.

$$\text{MCLG} = \frac{25\ \text{mg/l}}{10} \times 0.2 = 0.5\ \text{mg/l}$$

Public comment is requested on the proposed MCLG for DEHA.

2. Dalapon

Dalapon [2,2-dichloropropionic acid, CAS No. 75-99-0] is a herbicide used to control grasses in a wide variety of crops, including fruit trees, beans, coffee, corn, cotton, peas, beets and sugarcane. It is also registered for use in a number of noncrop applications, such as lawns, drainage ditches, along railroad tracks and in industrial areas. Dalapon is marketed as the sodium salt or as a mixture of the sodium and magnesium salts. Domestic production of dalapon in 1982 ranged between 7 and 9 million pounds active ingredient; between 2 and 3 million pounds of the total amount were exported. Dalapon is water soluble and tends to follow water-flow, thus runoff to surface waters could be significant. In the environment, it is rapidly degraded in soil by a variety of microorganisms. Therefore, its migration to ground water is unlikely with the possible exception of sandy, dry soils with low organic content overlying shallow aquifers.

*Occurrence and Human Exposure.* The data available on the occurrence of dalapon in air, food and drinking water is extremely limited. It is not possible, therefore, to describe total exposure or the relative source contributions for dalapon.

There is some possible exposure to dalapon from drinking water. However, the only data available reports a maximum concentration of dalapon of 1 μg/l.

Though the U.S. Food and Drug Administration does not include dalapon as one of the chemicals analyzed in its Total Diet Study, dalapon residues may be present in some foods due to its high solubility and tendency to be absorbed through root systems. No data are available on the levels of dalapon in ambient air, so no observations can be made regarding this source.

*Health Effects.* Dalapon has a relatively low order of toxicity in a number of species. The acute oral $LD_{50}$ values of dalapon sodium range from 3.9 g/kg in the female rabbit to 7.6 g/kg in the male rat. It appears that dalapon is relatively well absorbed from the GI tract of mammals (at least 50 to 70 percent) on the basis of excretory data in dogs and humans. Dalapon distributes through most body tissues, with no marked preferential accumulation in any one tissue. A study with human subjects showed that approximately 50 percent of five consecutive daily doses of 0.5 mg/kg of dalapon was excreted in the urine within 18 days.

Three studies have been considered in the derivation of a DWEL for dalapon. One study involved a 1-year exposure of dogs to three doses of dalapon in the diet [Paynter OE, Tusing TW, McCollister DD, Rowe VK. 1960. Toxicology of dalapon sodium (2,2-dichlor opropionic acid, sodium salt). Agric. Food Chem. 8:47-51). In this study, a LOAEL of 100 mg/kg/day was identified based on an increase in average kidney weight in dogs receiving 100 mg/kg/day. The next lowest dose, 50 mg/kg/day, was identified as the NOAEL. A second study involved a 5-month exposure of rats to three doses of dalapon in the diet [Kochkin VP. 1967. The maximum permissible concentration of dalapon in water bodies. Hyg. Sanit. 32:164-168]. This study identified a LOAEL of 10 mg/kg/day (based on decreased serum sulfhydryl levels and slowed reflexes) and a NOAEL of 1 mg/kg/day. The third study, conducted by Paynter et al. (1960), involved a 2-year exposure of rats to levels of dalapon in the diet. In this study, albino rats were given approximate dietary levels of 5, 15, and 50 mg/kg/day of dalapon sodium. Groups of 24 male rats were fed at each dose level; groups of 20 female rats were fed at all but the 50 mg/kg/day dose level. Complete blood counts and hemoglobin determinations were carried out on animals from each group at several intervals throughout the study. Interim sacrifices and histological examination were performed at 26 weeks on two male and two female rats from each group and at 52 weeks on two males from each group. At 104 weeks, the remaining animals were sacrificed. Growth, food consumption, survival, and hematological findings were comparable for dalapon sodium-treated rats as compared to controls. However, the average kidney weight of the male rats receiving the 50 mg/kg/day dose showed a statistically significant increase as compared to the male controls at the end of the 2-year period. The 50 mg/kg/day dose level was identified as the LOAEL in this study. No effects were observed at the next lowest dose level of 15 mg/kg/day and this dose level was identified as the NOAEL.

The dog study by Paynter et al. was not selected for the calculation of the MCLG because this is a shorter duration (subchronic) study and adequate chronic data are available in rats. The rat study by Kochkin is also a subchronic study and there is very little documentation regarding the methods used or the results. Therefore, this study was not selected for the calculation of the MCLG since the importance of the effects observed cannot be adequately assessed. EPA believes that the two-year study in rats conducted by Paynter et al. is the best study available because it was well conducted and documented. Also, it appears that rats are more sensitive to dalapon than dogs. In addition, the RfD derived from this study has been verified by EPA's RfD Workgroup. The NOAEL for rats exposed to dalapon sodium for two years in the diet was identified as 15 mg/kg/day. Since this NOAEL was based on the sodium salt that was 65 percent pure, it is necessary to convert the NOAEL to the equivalent value for the pure acid. The resulting NOAEL for the pure acid is 8 mg/kg/day. From the NOAEL, a DWEL of 0.93 mg/l for the 70-kg adult can be derived by applying an uncertainty factor of 300, and assuming a consumption of 2 liters of water per day. The uncertainty factor normally used with a NOAEL derived from an

animal study is 100. An additional uncertainty factor of 3 was used in the derivation of the DWEL for dalapon to account for the possible inadequacy of the available animal data.

$$DWEL = \frac{8\ mg/kg/day \times 70\ kg}{3 \times 100 \times 2\ 1/day} = 0.93\ mg/l$$

The available data suggest that the subchronic and chronic toxicity of dalapon are the same. Specifically, the NOAEL in both a 97-day rat study [Paynter et al., 1960] and the two-year rat study [Paynter et al., 1960] were both essentially equal to 8 mg/kg (as acid) based on an increase in kidney-to-body weight.

Dalapon did not result in any adverse effects at levels as high as 150 mg/kg/day (sodium salt) in a three-generation reproductive study in rats (Paynter et al., 1960). There is no evidence of teratogenic effects and a variety of mutagenicity studies have produced mostly negative results. There is no evidence of carcinogenicity in two-year feeding studies with rats [Paynter et al., 1960] or in a two-year feeding study with mice [Dow. 1983. The Dow Chemical Co. Biochemical Research Laboratory, Midland, MI. Two-year dietary chronic toxicity-oncogenicity study with B6C3F1 mice. Final report. MRID No. 000142147]. Based on the weight-of-evidence, EPA has classified dalapon as a Group D chemical.

EPA is proposing an MCLG of 0.2 mg/l based upon the DWEL of 0.93 mg/l and an assumed drinking water contribution of 20 percent.

$$MCLG = 0.93\ mg/l \times 0.2 = 0.2\ mg/l$$

Public comments are requested on the proposed MCLG for dalapon.

3. Dichloromethane (Methylene Chloride)

Dichloromethane (also known as methylene chloride, CAS No. 75–09–2) is a nonflammable, colorless liquid with a mild ethereal odor and a very high vapor pressure (349 mm Hg at 20°C). The United States is the leading producer of dichloromethane, with 1986 production exceeding 566 million pounds. Dichloromethane is widely used in the manufacture of paint remover, as a metal degreaser and as an aerosol propellant. It is also used as an extraction solvent in the processing of spices, beer hops, coffee and pharmaceuticals. It has many other industrial applications which include use as a production solvent in the manufacture of insecticides and herbicides, and a component in adhesive, fumigants, refrigerants, and fire extinguishers. Due to its high water solubility, low affinity for soils, and moderate persistence in anaerobic soils and water, dichloromethane poses a significant threat to ground waters underlying spills, leaks, or landfills. Volatilization reduces concentrations in surface waters below levels of concern, except in situations such as spills.

*Occurrence and Human Exposure.* The Groundwater Supply Survey (GWSS) conducted from 1980 to 1981 included dichloromethane as one of the analytes. Eighteen groundwater systems were analyzed for dichloromethane. None of the systems contained quantifiable levels of dichloromethane. The minimum quantifiable concentration for this contaminant ranged from 1 to 2 μg/l. The GWSS also sampled 87 surface water systems. Of these 87 systems, 15 were found to contain dichloromethane at concentrations ranging from 1 to 41 μg/l. The National Screening Program for Organics in Drinking Water (NSP) conducted from 1977 to 1981 examined both raw and finished drinking water samples for 51 volatile organic chemicals, including dichloromethane. Of the 12 groundwater supplies sampled, none contained detectable levels of dichloromethane. The minimum quantifiable concentration for this contaminant was 0.5 μg/l. Of the 106 surface drinking water supplies sampled, five contained detectable levels of dichloromethane, with concentrations ranging from 0.2 to 2 μg/l.

Some data are available on the occurrence of dichloromethane in ambient air. Dichloromethane has been detected in ambient air throughout the United States, with background levels ranging from 30 to 50 parts per trillion (ppt). Ambient air levels are reported to be highest in urban areas, with a maximum reported concentration of 69 parts per billion (ppb). The daily average ambient concentration of dichloromethane in the United States has been estimated at 1.62 ppb.

No data are available on the occurrence of dichloromethane in food.

Available information on the occurrence of dichloromethane in drinking water, food, and air is insufficient to determine the national distribution of intake by any of these routes of exposure.

*Health Effects.* Oral $LD_{50}$ values for dichloromethane have been reported as 2.0 g/kg for mice and 2.1 g/kg for rats. Exposure to dichloromethane has resulted in hepatic, renal, cardiac, and central nervous system toxicity in a variety of species. When exposure to large doses occurs, acute toxicity symptoms are severe central nervous system depression and ultimately death. Other adverse effects of dichloromethane vapors include irritation of the lungs, mucous membranes, eyes and skin. Toxicity studies in humans are limited to inhalation exposure. Behavioral and neurological symptoms observed in humans include light-headedness, reduced scores on sensory/motor tests, and eye/hand coordination depression.

Two chronic oral toxicity studies were considered as the basis for the calculation of the RfD and the DWEL for dichloromethane (Serota DG, Thakur AK, Ulland BM, Kirschman JC, Brown NM, Coots RH. 1986a. A two-year drinking water study of dichloromethane in rodents. I. Rats. Food Chem. Toxicol. 24:959–963; Serota DG, Thakur AK, Ulland BM, Kirschman JC, Brown NM, Coots RH. 1986b. A two-year drinking water study of dichloromethane in rodents. II. Mice. Food Chem. Toxicol. 24:959–963). Although both studies were adequate, the study with rats has been selected as the most appropriate for derivation of the DWEL because rats are the most sensitive species. In this study, the toxicity and carcinogenicity of dichloromethane was investigated. Two control groups (85 and 50 rats/sex/group) received deionized drinking water. Four groups of animals (85 rats/sex/group) were given dichloromethane in drinking water at target doses of 5, 50, 125, and 250 mg/kg/day. The lowest dose was estimated as 5.85 mg/kg, based on actual water consumption. Survival, body weight gains, total food consumption, water consumption, clinical observations, ophthalmoscopic findings, clinical pathology, absolute and relative organ weights and gross and microscopic pathology were examined after 104 weeks of exposure to evaluate any compound-related effects. At 50, 125, or 250 mg/kg/day, an

increased incidence of foci/areas of cellular alteration and fatty change were observed in the liver. In addition to hepatocellular effects, statistically significant decreases in body weight, and in water and food consumption, were observed in animals receiving 125 and 250 mg/kg/day compared with controls. No compound-related effects were observed at the lowest dose of 5.85 mg/kg/day, and this dose level was identified as the NOAEL in rats. Based on a NOAEL of 5.85 mg/kg/day, a DWEL of 2 mg/l has been derived for the 70-kg adult consuming 2 liters of drinking water daily and using an uncertainty factor of 100 (in accordance with NAS/ODW guidance for use with a NOAEL from an animal study).

$$\text{DWEL} = \frac{5.85\ \text{mg/kg/day} \times 70\ \text{kg}}{100 \times 2\ \text{l/day}} = 2\ \text{mg/l}$$

Dichloromethane has been shown to be mutagenic in bacterial test systems. Tests of mammalian systems show no clear and consistent evidence of mutagenicity. Dichloromethane has also shown positive results in a mammalian transformation test. The carcinogenic potential of dichloromethane has been evaluated by three groups: Hazleton Laboratories [Serota et al., 1986a,b]; The National Toxicology Program [National Toxicology Program. 1986. NTP technical report on the toxicity and carcinogenicity studies of dichloromethane (methylene chloride) (CAS No. 75–09–2 in F344/N rats and B6C3F$_1$ mice (inhalation studies). Final report. NIH publication No. 86–2562. National Toxicology Program, Research Triangle Park, NC]; and Dow Chemical Company [Burek JD, Nitschke KD, Bell TJ, Wackerle DL, Childs RC, Beyer JE, Dittenker DA, Rampy LW, McKenna MJ. 1984. Methylene chloride: A two-year inhalation toxicity and oncogenicity study in rats and hamsters. Fund. Appl. Toxicol. 4:30–47]. The results of these bioassays are summarized below. These studies were considered in evaluating the carcinogenic potential of dichloromethane.

Serota et al. (1986a,b) describe studies in which Fischer 344 rats and B6C3F$_1$ mice were exposed to dichloromethane in drinking water at concentrations equivalent to doses of 0, 5, 50, 125, or 250 mg/kg/day (rats) and 0, 60, 125, 185, or 250 mg/kg/day (mice). A significant increase in the incidence of neoplastic nodules/hepatocellular carcinomas was observed in female rats exposed to 50 and 250 mg/kg/day (but not at 125 mg/kg/day) compared to matched controls. These increases were within the range of historical controls and were considered marginal. Similarly, increases in combined hepatocellular adenomas/carcinomas in male mice were also considered borderline with increases significantly different from controls in the 125 and 185 mg/kg/day, but not the 250 mg/kg/day, dose groups.

In an inhalation study conducted by NTP (1986), Fischer 344/N rats and B6C3F$_1$ mice of both sexes were exposed to dichloromethane concentrations of 0, 1,000, 2,000, or 4,000 ppm (rats) and 0, 2,000, or 4,000 ppm (mice) for 6 hours/day, 5 days/week, for 2 years. Significant increases in the benign mammary tumors (primarily fibroadenomas) were observed in high-dose male and female rats from all dosed groups. Significant positive trends for mammary adenoma or fibroadenoma were also noted in male and female groups. The significance of other tumor incidence increases (combined hepatocellular neoplastic nodules/carcinomas, mononuclear cell leukemia, mesotheliomas, adrenal pheochromocytomas and interstitial cell tumors, and combined pituitary gland adenomas/carcinomas) varied with the type of statistical analysis used to evaluate the results. For mice, increased incidences of alveolar/bronchiolar adenomas and/or carcinomas as well as significant positive trends were found for both sexes, and the number of treated animals bearing multiple pulmonary tumors was also increased over controls. In addition, the incidence of mice with multiple hepatocellular adenomas/carcinomas increased significantly in a dose-related manner. On the basis of these results, NTP concluded that there was some evidence of the carcinogenicity of dichloromethane for male Fischer 344/N rats as shown by an increased incidence of benign neoplasms of the mammary gland; there was sufficient or clear evidence of the carcinogenicity of dichloromethane for female Fischer 344/N rats as shown by an increased incidence of benign neoplasms of the mammary gland; and there was clear evidence of carcinogenicity in male and female B6C3F$_1$ mice as shown by increased incidence of lung and liver tumors.

In the study described by Burek et al. (Dow Chemical, 1984), Sprague-Dawley rats and Golden Syrian hamsters (both sexes) were exposed via inhalation to levels of 0, 500, 1,500, or 3,500 ppm dichloromethane, 6 hours/day, 5 days/week, for 2 years. No effects were noted in hamsters. Increases in ventral cervical sarcomas and benign mammary tumors were observed in rats.

EPA has used primarily the NTP (1986) study as the basis for both the qualitative ranking and the quantitative risk assessment. The other two studies provide additional support to the NTP findings. Based on the increased incidence of hepatocellular adenomas/carcinomas in the test animals, EPA has classified dichloromethane in Group B2: Probable human carcinogen. Two carcinogenic risk estimates calculated based on the studies conducted by Serota et al. (1986a,b) and NTP (1986) are similar. The concentration associated with an excess lifetime cancer risk of $10^{-4}$ is approximately 0.05 mg/l. EPA is assessing a pharmacokinetic inhalation model to estimate the risks of ingestion that suggests the risks may be slightly lower than indicated here. EPA may revise this risk estimate in the final rule based on the results of the inhalation study model.

EPA is proposing an MCLG for dichloromethane of zero based on its classification as a Group B2 carcinogen. EPA requests comments on whether the available carcinogenicity data by ingestion is adequate to classify dichloromethane in Group B2 and on the proposed MCLG.

4. Dinoseb

Dinoseb (2-sec-butyl-4,6-dinitrophenol; CAS #88–85–7) and its salts are used as pre- and postemergence herbicides for a wide variety of crop and noncrop applications. Domestic usage of dinoseb is estimated at approximately 6–10 million pounds per year. Laboratory studies indicate that under certain conditions dinoseb may persist in the environment for relatively long periods of time. Dinoseb may pose a threat to ground and surface water supplies due to its mobility in soil and surface water. Dinoseb has been detected in the ground water underlying or downflow of treated agricultural fields. Precipitation runoff to surface waters has also been demonstrated.

*Occurrence and Human Exposure.* No drinking water occurrence data are presently available from national or regional studies for dinoseb. Dinoseb has been reported in some groundwater samples at concentrations ranging from 0.1 to 100 μg/l.

No data are available on the levels of dinoseb in ambient air, nor on respiratory intake of dinoseb.

EPA's Office of Pesticides and Toxic Substances conducted an analysis to evaluate drinking water guideline values in relation to Theoretical Maximum Residue Contributions (TMRC) for pesticides including dinoseb. Using an OPP/ORD approved reference dose of 0.001 mg/kg/day and assuming that 100% of the crops are treated and residues are present at tolerance levels,

OPTS estimated a total dietary TMRC of 1.0 μg/kg/day and a theoretical exposure from water of 0.091 μg/kg/day.

Because of the limited data available on the occurrence of dinoseb in air, food and drinking water, it is not possible to describe total exposure or the relative source contributions.

*Health Effects.* The acute oral $LD_{50}$ values for dinoseb range from 20 to 40 mg/kg in rats and mice. Data from animal studies suggest that absorption of dinoseb from the GI tract of mammals is probably complete. Dinoseb is extensively metabolized by several pathways. Several of its metabolites have been identified, although many others detected remain to be characterized. In test animals, absorbed dinoseb and/or dinoseb metabolites are distributed to various tissues and appear to be rapidly excreted in both the urine and feces.

Toxicological effects observed in several chronic and subchronic animal studies include decreased growth, decreased thyroid weights, endometrial hyperplasia and degeneration of the testes. EPA has selected a two-year study with rats for the determination of the MCLG [Hazleton. 1977. Hazleton Laboratories America, Inc. 104-Week Dietary Study in Rats: Dinoseb DNBP. Prepared for Dow Chemical Co., Midland, MI. EPA MRID 00025582]. In this study, groups of 60 rats/sex were fed dinoseb at dose levels of 0, 1, 3 or 10 mg/kg/day in the diet. Effects observed in the dosed animals when compared to controls included hunched appearance and staining of the fur, polypnea and lower mean body weight gains during the first year of the study. There were no compound-related effects on survival, food consumption, hematology, clinical chemistry, and urinalysis. However, there was a statistically significant decrease in mean thyroid weight at all dose levels tested in male rats. A dose-related trend in decreased thyroid weights was also observed. No histopathological changes were detected in this study. However, tissues from only a limited number of animals were examined. The study identified a LOAEL of 1 mg/kg/day based on decreased thyroid weights. This LOAEL has been used by EPA's RfD Work Group for the derivation of the RfD for dinoseb.

The LOAEL derived in the selected study is supported by a more recent chronic study with mice [Brown D. 1981. Dinoseb: A 100 Week Oral (Dietary) Toxicity and Carcinogenicity Study in the Mouse. Hazleton Laboratories Europe, Ltd. Prepared for Dow Chemical Pacific, Ltd., Hong Kong. EPA MRID 00152764]. In this study, groups of 70 male and 70 female mice were fed dinoseb in the diet for 100 weeks at dose levels of 0, 1, 3 or 10 mg/kg/day. This study involved a more complete histopathological examination of tissue from mice fed dinoseb in the diet. The results revealed cystic endometrial hyperplasia and atrophy in females, and hypospermatogenesis and degeneration in the testes of males at all dose levels. A LOAEL of 1 mg/kg/day has been identified in this study.

The DWEL for dinoseb may be derived from the LOAEL of 1 mg/kg/day by using an uncertainty factor of 1,000 (as per ODW/NAS guidelines for use with a LOAEL). For the 70-kg adult, the resulting DWEL is 0.035 mg/l, assuming a consumption of drinking water of 2 liters per day.

$$\text{DWEL} = \frac{1\ \text{mg/kg/day} \times 70\ \text{kg}}{1{,}000 \times 2\ \text{l/day}} = 0.035\ \text{mg/l}$$

Mutagenic studies of dinoseb have provided mixed results. For example, dinoseb was not found mutagenic in the Ames assay with *Salmonella typhimurium* and *Escherichia coli*, or sex-linked recessive lethal assay in *Drosophila melanogaster*. However, positive responses were elicited in DNA repair synthesis assays with *E. coli*, *Bacillus subtilis* and *S. typhimurium*. Dinoseb has been found to be teratogenic in several species including rabbits, rats, and mice (NOAEL between 1 to 3 mg/kg/day).

There is no evidence of carcinogenicity at doses as high as 10 mg/kg in the rat study conducted by Hazleton (1977). The mouse study conducted by Brown (1981) produced ambiguous results on oncogenic effects. Statistically significant increases in the incidences of liver adenomas and adenomas plus carcinomas were observed in female mice. However, the response was not dose-related and there were no decreases in time to tumor; nor did evidence appear of any of the potentially predisposing lesions in the liver such as hypertrophy, hyperplasia or degeneration, which are often associated with known hepatocellular carcinogens. Therefore, based on the data from these two studies, EPA has classified dinoseb in Group D: Inadequate evidence of human carcinogenicity. The available studies show inadequate evidence of carcinogenicity in both humans and animals.

EPA is proposing to regulate dinoseb based on the DWEL of 0.035 mg/l derived from the rat study by Hazleton (1977). A proposed MCLG of 0.007 mg/l is based upon this DWEL and an assumed drinking water contribution of 20%.

$$\text{MCLG} = 0.035\ \text{mg/l} \times 0.2 = 0.007\ \text{mg/l}$$

Public comments are requested on the evidence of carcinogenicity for dinoseb since the mouse study indicated increased tumor incidence in female mice at the intermediate dose level when compared to controls, and on the proposed MCLG.

5. Diquat

Diquat [6,7-dihydrodipyrido (1,2-a:2'1'-c) pyrazinedium dibromide; CAS #85-00-7] is a herbicide that has been used extensively in the U.S. since the late 1950s to control both terrestrial and aquatic weeds. Diquat usage in the United States was estimated to be 200,000 pounds of active ingredient in 1980. It is commercially available as an aqueous solution of diquat dibromide under the trade name Reglone. Although diquat is soluble and stable in water, it is photochemically degraded in sunlight at ordinary temperatures. Diquat is strongly absorbed by soil particles (particularly clay) and is therefore relatively immobile in soils. Diquat can be transported to nearby surface waters from treated soils via precipitation run-off in association with suspended particles, while leaching of diquat to ground water is very unlikely.

*Occurrence and Human Exposure.* There are no data available on the levels of diquat in drinking water or air. There is, however, limited information on dietary exposure to diquat. The Office of Pesticides and Toxic Substances conducted a Tolerance Assessment System (TAS) analysis of dietary exposure resulting from a proposed increase in the tolerance for residues of diquat in or on fish and shellfish. The TAS analysis estimates the Theoretical Maximum Residue

Contribution (TMRC) for the U.S. population and for each of 22 subgroups. The food uses evaluated were those for which tolerances have been established under 40 CFR 180.226. Residues were assumed to be present at tolerance levels on 100% of all crops for which tolerances have been established. In addition, diquat residues were assumed to be present in freshwater fish and all shellfish. The TMRC for the U.S. population was estimated to be 1.087 μg/kg/day based on existing tolerances with an additional 0.743 μg/kg/day for the proposed increase in the tolerance for fish and shellfish for a total exposure of 1.83 μg/kg/day.

Because of the limited data available on the occurrence of diquat in air, food and drinking water, it is not possible to describe total exposure or the relative source contributions.

*Health Effects.* Diquat exhibits moderate acute oral toxicity in a number of species, with $LD_{50}$ values ranging from >0.026 to 0.433 g diquat ion/kg body weight. The most notable toxic effects of oral doses include an increase in gastrointestinal water content and hemoconcentration. Diquat has a significant effect on body water distribution; dehydration may play a key role in mortality. The mechanism of diquat toxicity is not clear. Animal studies indicate that diquat is poorly absorbed from the GI tract of mammals and is readily eliminated in the feces. Following absorption, diquat distributes relatively uniformly among organ tissues, with some preferential accumulation in the kidneys. Diquat tissue levels decrease to non-detectable levels when exposure ceases, indicating no long-term retention. Small amounts of two metabolites have been identified; diquat monopyridone has been identified in the urine and feces, and diquat dipyridone in the urine only.

Several studies in rats, dogs, or guinea pigs have been considered for the derivation of the MCLG for diquat. The principal adverse effect observed in these studies was cataract formation. One study showed histological changes in the lungs. EPA believes that a 2-year feeding study in rats conducted by Colley et al. (1985) is the best available study to serve as the basis for the RfD and DWEL. The NOAEL in this study (based on the absence of cataract formation) was 0.22 mg/kg/day. This value is much lower than the results of Rogerson and Broad (1978), who reported a NOAEL (also based on absence of cataract formation) of 1.25 mg/kg/day in a 2-year feeding study in rats. The NOAEL of 0.22 mg/kg/day is supported by the data from the study by Clark and Hurst (1970) which also established 0.22 mg/kg/day as the NOAEL in rats from a 2-year feeding study.

Other studies considered were not selected for various reasons. In two studies, the lowest dose used resulted in cataract formation and no NOAEL value could be calculated [Pirie A, Rees JR. 1970. Diquat cataract in the rat. Exp. Eye Res. 9:198–203; Bainova A, Vulcheva V. 1978. Chronic action of diquat on the lungs. C. R. Acad. Bulgar Sci., 31:1369–1372]. One-year studies on rats and guinea pigs were taken from a secondary source and detailed documentation was not available [Makovstii VN. 1972. Toxicological and hygiene studies of bipyridylium herbicides diquat and paraquat, Ph.D. thesis (in Russian). Quoted in Environmental Health Criteria. 39: Paraquat and Diquat. Published by World Health Organization, Geneva, 1984]. A chronic study with dogs produced a NOAEL value much higher than that from a number of rat studies [Clark and Hurst, 1970].

In the selected chronic study conducted by Colley et al. (1985), Charles River CD rats of the Sprague-Dawley strain (five groups of 60 males and 60 females) were fed a diet containing 0, 5, 15, 75, and 375 ppm diquat ion for 104 weeks. The intake of diquat ion was calculated from the group mean estimated midweek body weight and group mean food consumption data. The overall means (expressed as mg diquat ion/kg bw/day) of weekly intakes during 104 weeks of treatment for the 5-, 15-, 75-, and 375-ppm diquat ion groups were 0.22 (males = 0.19, females = 0.24), 0.65 (males = 0.58, females = 0.72), 3.28 (males = 2.91, females = 3.64), and 17.16 (males = 14.88, females = 19.44), respectively. Dose-related cataractogenic effects were observed in males and females (0.65 mg diquat ion/kg bw/day) which was identified as the LOAEL. The authors concluded that the NOAEL for cataract formation is close to 5 ppm (0.22 mg diquat ion/kg bw/day). The incidence of mortality was not affected by the treatment. A reduction in appetite was recorded for rats receiving 375 ppm (17.16 mg ion/kg/day). No toxicologically significant changes were noted (in hematology, blood chemistry, urinalysis, histology, and gross pathology) other than reduction in hemoglobin levels in the 75-ppm group and reduction in mean cell volume in the 75- and 375-ppm groups. However, several minor variations were noted.

In the supporting chronic study conducted by Clark and Hurst (1970), 25 male and 25 female albino rats were fed diets containing approximately 0.22, 1.1, 2.2, 5.5, 11, or 22 mg diquat ion/kg/day for 2 years. Diets containing 1.1 mg diquat ion/kg/day resulted in the development of cataracts during the course of the experiment. The severity of the response increased as the dose increased. No opacities were observed in the animals fed 0.22 mg diquat ion/kg/day. Based on these data, the 0.22 mg diquat ion/kg/day dose level was identified as the NOAEL for rats for a 2-year exposure period.

From the Colley study (1985) as supported by Clark and Hurst data (1970), a DWEL of 0.077 mg/l may be derived for the 70-kg adult by applying an uncertainty factor of 100, which is used with a NOAEL of 0.22 mg/kg/day derived from animal data, and assuming a consumption of 2 liters of water per day.

$$\text{DWEL} = \frac{0.22\ \text{mg/kg/day} \times 70\ \text{kg}}{100 \times 2\ \text{l/day}} = 0.77\ \text{mg/l}$$

The mutagenic potential of diquat has been studied in a number of bacterial and eukaryotic systems. The results reported in the literature are contradictory. Both positive and negative findings have been reported in the *Salmonella* assay, unscheduled DNA synthesis, and mitotic gene conversion assay. Thus, the mutagenic effects of diquat in biological systems is unclear. The carcinogenic potential of diquat has not been determined. The available data from four chronic studies with rats and one with mice are not sufficient to determine the oncogenicity of this chemical due to substantial flaws in the submitted reports. For example, the most recent rat study by Colley et al. (1985) failed to provide historical control data for relevant target tissues as well as statistical analyses of both neoplastic

and non-neoplastic lesions. Similarly the only study available on mice by Ben-Dyke et al. (1975) failed to provide adequate histological data for evaluation of the oncogenicity of this chemical. At the present time, no signs of induced tumors were observed in any of the studies; however, due to the flaws discussed above, this chemical is classified in Category D for carcinogenicity.

The proposed MCLG is 0.02 mg/l based upon the DWEL of 0.077 mg/l and an assumed drinking water contribution of 20 percent.

$$MCLG = 0.077 \text{ mg/l} \times 0.2 = 0.02 \text{ mg/l}$$

Public comments are requested on the proposed MCLG for diquat.

6. Endothall

Endothall [7-oxabicyclo-(2.2.1)-heptane-2,3-dicarboxylic acid; CAS #145–73–3] is used as a defoliant for a wide range of crops and as a herbicide for both terrestrial and aquatic weeds. EPA estimated total domestic usage in 1982 to have been approximately 1.5 million pounds. Commercial formulations generally contain the sodium, potassium, or N,N-dialkylamine salts of the acid. The free acid and the endothall salts are water soluble, and tend to move with water through soil. Natural pond and lake studies have shown that endothall is rapidly decomposed by soil and aquatic microorganisms and has a relatively short half-life in the environment. It is usually cleared from soil and water within 30 to 60 days, and often within a considerably shorter time.

*Occurrence and Human Exposure.* There are no data available on the levels of endothall in drinking water or air. There is, however, limited information on dietary exposure to endothall. The Office of Pesticides and Toxic Substances conducted an analysis of the drinking water guideline values in relation to the TMRC for pesticides including endothall. Using tolerance values and a reference dose (RfD) of 0.02 mg/kg/day, a total theoretical dietary exposure including water was calculated to be 0.002 mg/kg/day (10% of the RfD) for the overall U.S. population. The theoretical exposure from water alone was calculated to be 0.0018 mg/kg/day or approximately 9% of the RfD.

Because of the limited data available on the occurrence of endothall in air, food and drinking water, it is not possible to describe total exposure or the relative source contributions.

*Health Effects.* The estimated acute oral toxicity $LD_{50}$ values for endothall and endothall formulations range from 0.031 to 0.138 g/kg in rats. Single intravenous doses of 0.005 g endothall/kg body weight or higher were fatal to dogs and rabbits. Death of test animals was attributed to either respiratory or cardiac failure. Most of the information available on the toxicokinetics of endothall is from one study involving the administration, by gavage, of endothall to six rats (2 males, 4 females). Although limited, the results indicate that endothall is rapidly excreted in unaltered form, primarily in the feces, suggesting that there is little gastrointestinal absorption. Endothall was also the only compound detected in the urine. The endothall that is absorbed is distributed in low levels through most tissues in the body, with no marked preferential accumulation in any organ. In the rat study, total excretion was 95 to 99 percent of the dose within 48 hours, suggesting that no significant bioaccumulation or retention occurs.

A principal toxic effect of endothall is increased organ weight and organ-to-body weight ratios of the stomach and small intestine. This toxicological effect has been observed in a 24-month study on the effects of disodium endothall in male and female beagle dogs [Keller J. 1965. Two year chronic feeding study of disodium endothall to beagle dogs. EPA Pesticide Petition 6G0503. EPA Accession No. 090586, Exhibit 7]. In this study, purebred beagles (6 to 9 months of age) were divided into four groups of six dogs each (three males and three females per group). The groups were fed diets containing 0, 100, 300 or 800 mg disodium endothall/kg of diet for 24 months. These levels correspond to dose levels of approximately 0, 2, 6 or 16 mg endothall ion/kg body weight/day, respectively. No gross signs of toxicity were observed in any test animals, and body weight gains and food consumption were within normal limits throughout the study. Organ weights and organ-to-body weight ratios of test animals in the low-dose group (2 mg/kg/day) were comparable to those of controls. Intermediate- and high-dose level dogs exhibited increased organ weight and organ-to-body weight ratios of the stomach and small intestine. The effects appeared to be dose related. No other changes were observed in the test animals. This study identifies a LOAEL of 6 mg endothall ion/kg body weight/day and a NOAEL of 2 mg endothall ion/kg body weight/day.

A three-generation study on the effects of disodium endothall on reproduction in rats demonstrated toxic effects and increased mortality in the offspring at 12 mg endothall ion/kg/day in the maternal study. [Scientific Associates. 1965. Three generation rat reproductive study, disodium endothall. EPA Pesticide Petition No. 6G0503. EPA MRID No. 00040958]. In this study, groups of 20 female and 10 male rats were fed 0, 100, 300 or 2,500 ppm disodium endothall (corresponding to approximately 0, 4, 12, or 100 mg endothall ion/kg body weight/day, respectively). At the high-dose level (100 mg/kg/day), toxic effects which included reduced body weight gains in parents and excessive mortality in offspring resulted in termination of this dose level for the second- and third-generation reproductive study. At the mid-dose level (12 mg/kg/day), no parental toxicity was observed. However, there were signs of reproductive/developmental toxicity which included increased mortality in the offspring at this dose level. At the low-dose level (4 mg/kg/day), no effects were observed in either the dams or the offspring. Thus, this study identifies a NOAEL of 4 mg/kg/day and a LOAEL of 12 mg/kg/day for reproductive/developmental toxicity.

EPA considered these two studies for the derivation of the MCLG for endothall. The chronic study in dogs has been selected because, although no significant histopathological changes were observed in association with increased organ weights and organ-to-body ratios, the effects appeared to be dose dependent. In addition, the NOAEL derived from the study in dogs (2 mg/kg/day) is lower than the NOAEL derived from the study in rats (4 mg/kg/day), providing a more conservative value. Based on a NOAEL of 2 mg/kg/day, a DWEL of 0.70 mg/l can be derived for the 70-kg adult by applying an uncertainty factor of 100, which is in accordance with NAS/ODW guidelines for use with a NOAEL derived from animal data, and assuming a consumption of 2 liters of water per day.

$$DWEL = \frac{2 \text{ mg/kg/day} \times 70 \text{ kg}}{100 \times 2 \text{ l/day}} = 0.70 \text{ mg/l}$$

Several genetic toxicity assays in relevant biological systems have indicated that endothall is not mutagenic. Endothall was found not to be mutagenic in bacterial, fungal, mammalian cell or *Drosophila* assays. Although dipotassium endothall exhibited a positive response in BALB/3T3 cells cocultivated with primary rat hepatocytes, the results of the study have been questioned because of issues regarding the procedure and interpretation. Thus, the weight of evidence indicates that endothall has low mutagenic potential. The carcinogenic potential of endothall has been evaluated in a two-year rat study [Brieger H. 1953a. Endothall. Long-term oral toxicity test. Rats. EPA Pesticide Petition No. 6G053. EPA Accession No. 090586, Exhibit 6]. In this study, rats were exposed to disodium endothall in the diet corresponding to levels of about 0, 4, 12, 40 or 100 mg endothall ion/kg body weight/day. After 2 years, no differences were observed in the number or type of tumors in the exposed animals when compared to the control animals. However, this study is judged to be inadequate for assessing the carcinogenic potential of endothall due to the small number of animals used (10 male and 10 female rats per dose level). Therefore, the available toxicity data are inadequate to determine the carcinogenic potential of endothall, placing this chemical in Group D by the EPA's guidelines for carcinogenic risk assessment.

The proposed MCLG for endothall is 0.1 mg/l based upon the DWEL of 0.70 mg/l and an assumed drinking water contribution of 20 percent.

$$\text{MCLG} = 0.70\ \text{mg/l} \times 0.2 = 0.1\ \text{mg/l}$$

Public comments are requested on the MCLG for endothall.

7. Endrin

Endrin [1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octa-hydro-1,4-endo,endo-5,8-dimethanonaphthalene; CAS #72-20-8] is an aliphatic organochlorine cyclodiene pesticide first introduced into the United States in 1951. Once widely used in the United States, it was registered for the control of insects, agricultural rodent pests and nuisance birds under certain circumstances. Most uses of endrin were cancelled by 1980. USEPA has recently reached agreements with all registrants for voluntary final cancellation of all remaining uses of endrin.

*Occurrence and Human Exposure.* In the National Screening Program for Organics in Drinking Water (NSP) survey conducted by EPA from 1977–81, finished drinking water samples were collected from 12 ground water and 3 surface water supplies. None of the samples from the 15 systems studied contained concentrations of endrin in excess of the minimum quantifiable concentration of 0.1 μg/l.

In the 1978 Rural Water Survey (RWS) conducted by EPA, water samples were collected from 267 households in rural locations throughout the United States and analyzed for endrin. Although the majority of the households surveyed utilized private water supplies, a total of 71 public groundwater supplies and 21 surface water supplies were covered by the survey. None of the 92 systems sampled exceeded the minimum quantifiable concentration for this study of 0.008 μg/l for endrin.

The Federal Reporting Data System (FRDS) provides information on public water supplies found to be in violation of current MCLs as determined through monitoring requirements of the National Primary Drinking Water Regulations. No violations of the current MCL of 0.2 μg/l were reported for endrin during the years 1979–1983.

Endrin has been detected in ambient air. However, current monitoring data are insufficient to determine regional variations. The highest level of endrin reported in a national study was 0.0192 $\mu g/m^3$ in Tennessee. Typical air levels are somewhat lower. EPA has estimated a mean ambient air level of endrin of 0.0002 $\mu g/m^3$. Assuming air concentrations of endrin ranging from 0.0 to 0.0393 $\mu g/m^3$, EPA estimated a daily respiratory intake of 0.0 to 0.013 μg for the 70-kg adult inhaling 23 $m^3$ of air per day.

A review of the literature revealed that endrin occurs in very small amounts in food, but that exposures cannot be evaluated due to the limited amount of data. During 1982–88, U.S. Food and Drug Administration's Total Diet Study of 234 food items for selected chemicals found endrin in nine samples of raw cantaloupe, boiled broccoli, boiled summer squash, boiled winter squash, dill pickles, and frozen pumpkin pie. The residue amounts ranged from 0.3 to 9 ppb.

The available data on endrin are not adequate for describing total exposure or the relative source contributions for the general population.

*Health Effects.* The acute oral $LD_{50}$ values of endrin given to mammals by gavage ranges from 2.3 mg/kg to 43.4 mg/kg. The data suggest that primates are one of the most sensitive groups. Signs of intoxication include ataxia, tremors, labored breathing, diarrhea and convulsions.

A number of deaths have occurred in humans from swallowing endrin. In less severe cases of endrin poisoning, the complaints include headaches, dizziness, abdominal discomfort, nausea, vomiting, insomnia, agitation and mental confusion. Electroencephalograms show dysrhythmic changes in persons exposed to endrin but withdrawal from exposure usually results in a normal electroencephalogram within 1 to 6 months. Several incidents of endrin poisoning from contaminated flour have been reported in the literature.

A provisional adjusted acceptable daily intake (now termed the DWEL) for endrin was provided in 50 FR 47010. This provisional value was based upon a feeding study [Treon et al. 1955. Toxicity of Endrin for Laboratory Animals. J. Agric. Food & Chem. 3:842] in which dogs were exposed for 18.7 months to 1, 3, or 4 ppm endrin in the diet. Based on measured food intake, the daily dose varied from 0.045 to 0.12 mg/kg bw for the 1 ppm group, 0.12 to 0.25 mg/kg bw for the 3 ppm group and 0.12 mg/kg to 0.21 mg/kg bw for the 4 ppm group. Using 0.045 mg/kg bw (1 ppm) as the NOAEL, a provisional AADI (DWEL) of 0.002 mg/l (rounded from 0.0016 mg/l) was calculated. However, recently EPA, after a review of published and unpublished chronic feeding studies in animals, has chosen another chronic oral dog bioassay [Jolley et al. 1969. CBI # MRID 00030198] for RfD derivation. EPA prefers the Jolley et al. (1969) unpublished study in dogs over the Treon et al. (1955) study in dogs because in the latter study, the endrin consumption was unusually high (0.045 to 0.12 mg/kg bw) for the 1 ppm group. The revised RfD of 0.0003 mg/kg for endrin is based on the chronic oral dog study by Jolley et al. (1969). In this study, groups of 3 to 7 dogs of each sex were fed diets containing 0.1, 0.5, 1, 2 or 4 ppm endrin for 2 years. Dogs receiving 2 or 4 ppm experienced occasional convulsions, slightly increased relative liver weights, and mild histopathological effects in the liver (slight vacuolization of hepatic cells). No adverse effects on these parameters or on growth, food consumption, behavior, serum chemistry, urine chemistry or histological appearance of major organs occurred at <1 ppm. Thus, the 1 ppm level is the NOAEL and the 2 ppm level is the LOAEL in this study. The authors provided data concerning actual endrin consumptions as weekly averages, but no overall averages were calculated. Review of these data indicated that application of the standard food factor of 2.5% bw/day would closely approximate actual consumption. Therefore, the 1 ppm NOAEL was

equivalent to an endrin intake of 0.025 mg/kg/day. From the NOAEL (in mg/kg/day), a DWEL of 0.009 mg/l is derived for the 70-kg adult consuming 2 liters of water per day by applying an uncertainty factor of 100, which is appropriate for use with a NOAEL derived from a chronic study using animal data in accordance with ODW/NAS guidelines.

$$DWEL = \frac{0.025\ mg/kg/day \times 70\ kg}{100 \times 2\ l/day} = 0.009\ mg/l$$

Available data indicate that endrin is not mutagenic. Endrin was not mutagenic in a *Salmonella typhimurium* reverse mutation assay using strains TA1536, TA1537, TA1538, TA98 or TA100 or in *Escherichia coli* WP2 *hcr*. In one study, adult *Drosophilia* were exposed to endrin by abdominal injection and the Muller-5 test for recessive lethal mutation on the x-chromosome was performed. No positive responses for endrin or other chlorinated pesticides tested were reported.

The potential oral carcinogenic effect of endrin has been evaluated in several studies with rats and mice [Treon JF and Cleveland FP. 1955. Toxicity of Certain Chlorinated Hydrocarbon Insecticides for Laboratory Animals, with Special Reference to Aldrin and Dieldrin. J. Agric. Food Chem. 3:402–408; Deichmann WB, MacDonald WE, Blum E et al. 1970. Tumorigenicity of Aldrin, Dieldrin and Endrin in the Albino Rat. Ind. Med. 39:426–434; NCI (National Cancer Institute). 1979. Bioassay of Endrin for Possible Carcinogenicity. Carcinogenesis Tech. Rep. Ser. 12, NCR–CG–TR–12. DHEW Publ. No. (NIH) 79–812; Witherup S, Stemmer KL, Taylor P and Bietsch P. 1970. The Incidence of Neoplasms in Two Strains of Mice Sustained on Diets Containing Endrin. Kettering Lab., Univ. Cincinnati, Cincinnati, OH]. The results were negative in all of these studies. Treon et al. (1955) also failed to note any increase in tumorigenesis in dogs exposed up to 18.7 months at the maximum tolerated dose. The only positive carcinogenic effects of endrin were reported by one investigator [Reuber MD. 1978. Carcinomas, Sarcomas and Other Lesions in Osborne-Mendel Rats Ingesting Endrin. Exp. Cell. Biol. 46:129–145; Reuber MD. 1979. Carcinogenicity of Endrin. Sci. Total Envir. 12:101–135]. In a study using Osborne-Mendel rats administered endrin in the diet at concentrations of 0.1, 5, 20 or 25 ppm, the total number of malignant tumors was increased in all exposed groups (Reuber, 1978). No more than 2 tumors/group, however, were reported for any one site. Moreover, no dose response was apparent, with the greatest number of tumors occurring in the 0.1 ppm group. This, however, could be caused by toxicity factors at the higher doses. Reuber (1979) also reevaluated tissue sections from the NCI (1979) and Witherup et al. (1970) studies. In his reevaluation he concluded that the NCI rat study and the Witherup mouse study were inconclusive. Reuber's criteria appear to differ from those of the other investigators. Therefore, based on the available information, EPA has classified endrin as a Group D chemical, i.e., there is inadequate evidence of carcinogenicity because of the conflicting reports.

EPA is proposing to regulate endrin based on the DWEL of 0.009 mg/l which was derived from the chronic oral dog study by Jolley et al. (1969). Using a 20 percent drinking water contribution to total exposure, EPA proposes an MCLG of 0.002 mg/l.

$$MCLG = 0.009\ mg/l \times 0.2 = 0.002\ mg/l$$

Public comments are requested on the proposed MCLG for endrin.

8. Glyphosate

Glyphosate [N-(phosphonomethyl)glycine; CAS # 1071–53–6] is a broad-spectrum, foliar herbicide that is absorbed through foliage and translocated throughout the plant. It is highly effective on deep-rooted perennial species, and on annual and biennial species of grasses, sedges, broad-leaved weeds, and woody brush. It is commercially available as a concentrated aqueous solution of the isopropylamine salt, under the trade names of Rodeo and Roundup. The U.S. production of glyphosate was between 15 and 20 million pounds in 1980. Glyphosate is quite soluble in water and can potentially reach surface water supplies via precipitation runoff. Because of its strong absorption to soil, glyphosate has little tendency to reach ground water supplies.

*Occurrence and Human Exposure.* There are no occurrence data available on the levels of glyphosate in drinking water or air. There is, however, limited information on dietary exposure to glyphosate. The Tolerance Assessment System (TAS) dietary exposure analysis conducted by the Office of Pesticides and Toxic Substances indicates that exposure to glyphosate from food for the overall U.S. population would be approximately 5.2 μg/kg/day, assuming that residues would be present on all foods for which tolerances have been established at the tolerance level and that 100% of those crops would have been treated with glyphosate. Relative to the RfD of 0.1 mg/kg/day, it appears that food would be a small source of exposure to glyphosate. Using the same reference dose, a total theoretical dietary exposure was calculated to be 0.014 mg/kg/day for the overall U.S. population. The theoretical exposure from water alone was calculated to be 0.009 mg/kg/day.

Because of the limited data available on the occurrence of glyphosate in air, food and drinking water, it is not possible to describe total exposure or the relative source contributions.

*Health Effects.* Glyphosate exhibits moderate toxicity via the oral and dermal routes. Oral $LD_{50}$ values have been reported to be 4.9 and 5.6 g/kg in rats. The oral $LD_{50}$ has been reported to be 1.6 g/kg in mice. The dermal $LD_{50}$ has been estimated to be more than 5.0 g/kg in rabbits. The principal acute toxic effect of glyphosate poisoning is hyperemia in the lungs. Symptoms of acute poisoning include severe stress, accelerated breathing, elevated temperature and occasional convulsive movements.

Information on the toxicokinetics of glyphosate is very limited. Available information suggests that glyphosate is rapidly excreted in animals. No preferential retention has been observed in any particular organ and available studies have reported minimal tissue retention and rapid elimination. In addition, no evidence of bioaccumulation after administration of repeated doses has been found.

EPA believes that the study considered most suitable to calculate the MCLG for glyphosate is a three generation rat study [Bio/dynamics, Inc. 1981b. Lifetime feeding study of glyphosate (Roundup Technical). Project

No. 77–2062 for Monsanto Co., St. Louis, MO. EPA Accession Nos. 246617 and 246621]. In this study, glyphosate was administered to rats in the diet at dose levels of 0, 3, 10, or 30 mg/kg body weight for three successive generations. Groups of 12 male and 24 female rats were administered test diets for 60 days prior to breeding. Administration was continued through mating, gestation and lactation for two successive litters. Groups of 12 males and 24 females were retained at weaning for each dose level to serve as parental animals for the succeeding generation. The reproductive effects of glyphosate investigated over three generations were: fetal, pup, and adult survival; mean parental and pup body weight and food consumption; and mating, pregnancy, fertility, and gestation length. No compound-related effects were observed when treated animals were compared to controls except that at the highest dose (30 mg/kg) there was an increase in focal tubular dilation in the kidneys of male pups of the third generation when compared to the control group (7/10 in treated animals compared to 2/10 in concurrent controls). Based on these data, the 10 mg/kg/day dose level was identified as the NOAEL. From the NOAEL, a DWEL of 3.5 mg/l for the 70-kg adult is derived by applying an uncertainty factor of 100, which is in accordance with NAS/ODW guidelines for use with a NOAEL derived from an animal study, and assuming a consumption of 2 liters of water per day.

$$\text{DWEL} = \frac{10\ \text{mg/kg/day} \times 70\ \text{kg}}{100 \times 2\ \text{l/day}} = 3.5\ \text{mg/l}$$

Glyphosate has been reported to be non-mutagenic in a number of bacterial systems and in one yeast test system. Studies in several mammalian species have also produced negative results for mutagenic activity. In one study conducted to investigate the effect of glyphosate in human lymphocytes, a statistically significant increase in sister chromatid exchange was observed at high concentrations. However, at the highest concentration tested, no lymphocyte growth occurred. The carcinogenic potential of glyphosate has been evaluated in two studies. In the first study, the chemical was administered in the diet of four groups of rats (50/sex/group) at different dose levels for 26 months. The study suggested the possible occurrence of tumors in tastes and thyroid carcinoma in female rats but the study has been discounted by EPA after a careful review because of the lack of dose-dependent responses, the lack of preneoplastic changes and the similarity of response between the high-dose group and the historical controls. A second study on mice that were administered glyphosate in the diet for 24 months also indicated no positive evidence for glyphosate-related carcinogenic effect. Based on the weight-of-evidence and consistent with EPA's guidelines for assessment of carcinogenic risk, EPA has classified glyphosate as a Group D chemical. The available studies show inadequate animal evidence of carcinogenicity.

EPA is proposing to regulate glyphosate based on its potential adverse reproductive effects reported in the three-generation rat study which showed a statistically significant increase in kidney lesions in male pups of dams. EPA is proposing an MCLG of 0.7 mg/l based upon the DWEL of 3.5 mg/l, assuming a drinking water contribution of 20 percent.

MCLG = 3.5 mg/l × 0.2 = 0.7 mg/l

Public comments are requested on the proposed MCLG for glyphosate.

9. Hexachlorobenzene

Hexachlorobenzene [CAS #118–74–1] has a low water solubility and low vapor pressure at ambient temperatures. Hexachlorobenzene is a waste product in a number of chlorination reactions. Approximately 2 to 5 million pounds of hexachlorobenzene may be generated each year as a waste by-product. Hexachlorobenzene is resistant to biodegradation, accumulates in the environment and has been detected in ambient air, drinking and surface water, sediments, cropland and food.

*Occurrence and Human Exposure.* Hexachlorobenzene has been a contaminant of concern because of its occurrence in human tissue and milk from nursing mothers. The compound has been found in adipose tissue and milk of cattle raised in the vicinity of industrialized regions in Louisiana, and in adipose tissue of sheep in western Texas and California.

Hexachlorobenzene has also been found in fish and birds.

Hexachlorobenzene has been found in ambient air around production and waste disposal sites.

Limited information is available on levels of hexachlorobenzene in finished drinking water supplies.

Hexachlorobenzene was detected in a regional survey in two finished water supplies at levels of 4 and 6 ng/l. In the National Screening Program, the compound was not detected.

*Health Effects.* Acute oral $LD_{50}$ values are available for a few mammalian species and range from 1.7 g/kg in cats up to 10 g/kg in rats.

Hexachlorobenzene is readily absorbed and distributed to tissues that have a high lipid content. The adipose tissue accumulates the greatest concentration of hexachlorobenzene in all species studied, although bone marrow and skin also accumulate significant amounts. Hexachlorobenzene is metabolized slowly into other chlorinated benzenes, chlorinated phenols and other minor metabolites. The excretion of hexachlorobenzene is characterized by an initial rapid phase followed by a slow phase.

Several oral subchronic studies of hexachlorobenzene have been reported. In several animal species, hexachlorobenzene was found to cause alopecia and scabbing, decreased body weight, increased liver and kidney weights and increased porphyrin levels in the urine and in several organs. Histopathologic changes have been observed in the liver and kidneys of rats, gastric lymphoid tissue of dogs, and ovaries of monkeys. Hexachlorobenzene was also reported to cause neurologic effects (ataxia, paralysis, etc.) on several animal species.

Human data are available from a few epidemiologic studies. One reported case of consumption of wheat contaminated with hexachlorobenzene by people in Turkey from 1955–1959 resulted in disturbed porphyrin metabolism, cutaneous lesions, and hyperpigmentation. In addition, the exposure caused neurotoxicity and liver damage. In children under one year old, deaths as well as pink sores were observed. Hexachlorobenzene intake was estimated as 0.05 to 0.2 g/day.

The study selected for the derivation of the DWEL is a 130-week rat study [Arnold DL, Moodie CA, Charbonneau SM, et al. 1985. Long-term Toxicity of Hexachlorobenzene in the Rat and the Effect of Dietary Vitamin A. Food Chem.

Toxicol. 23(9):779–793]. This study involved feeding male and female Sprague-Dawley rats diets containing 0, 0.32, 1.6, 8 or 40 ppm of hexachlorobenzene for 90 days prior to mating and until 21 days after parturition (at weaning). The number of offspring from these matings was reduced to 50 males and 50 females per dose group at 28 days of age and fed their respective parents' diets. Thus, these animals were exposed to hexachlorobenzene and metabolites in utero, from maternal nursing and from their diets for the remainder of their lifetime (130 weeks). No hexachlorobenzene-induced adverse effects were reported in the 0.32 and 1.6 ppm hexachlorobenzene offsprings. The 8.0 ppm hexachlorobenzene offsprings were reported to have a significant increase in hepatic centrilobular basophilic chromogenesis. The 40 ppm hexachlorobenzene offsprings were reported with significant increases in pup mortality, hepatic centrilobular basophilic chromogenesis, severe chronic nephrosis in males, adrenal pheochromocytomas in females and parathyroid tumors in males. Thus, the NOAEL for this study is 1.6 ppm. This dose level has been converted to a daily intake dose of 0.08 mg/kg/day. From this NOAEL of 0.08 mg/kg/day, a DWEL of 0.028 mg/l for the 70-kg adult can be derived by applying an uncertainty factor of 100, which is appropriate for use with a NOAEL derived from long-term animal studies, and assuming a consumption of 2 liters of water per day.

$$\text{DWEL} = \frac{0.08\ \text{mg/kg/day} \times 70\ \text{kg}}{100 \times 2\ \text{l/day}} = 0.028\text{mg/l}$$

Mutagenicity studies indicate mixed but largely negative results. Studies on the carcinogenic potential of hexachlorobenzene have been carried out on hamsters, mice and rats. In a lifetime study with hamsters [Cabral JRP, Shubik P, Mollner T and Raitano F. 1977. Carcinogenic Activity of Hexachlorobenzene in Hamsters. Nature (London) 269:510–511], hepatoma was induced in both males and females. In addition to hepatomas, hamsters responded to hexachlorobenzene treatment with malignant liver haemangioendothelioma and thyroid adenoma. The incidence of haemangioendothelioma was 20 percent in males (versus 0 in controls) at 8 mg/kg/day and 12 percent in females (versus 0 in controls) at 16 mg/kg/day. The thyroid adenoma occurred at 14 percent incidence in males treated with 16 mg/kg hexachlorobenzene (versus 0 in controls). In a 120 week study with Swiss mice [Cabral JRP, Mollner T, Raitano F and Shubit P. 1979. Carcinogenesis of Hexachlorobenzene in Mice. Int. J. Cancer 23 (1): 47–51], liver cell tumors, described as hepatomas, were also produced. At 24 mg/kg/day the incidence was 34 percent for females and 16 percent for males and the response showed a dose-dependency not only in the number of tumor-bearing animals but also in the latent period, multiplicity and size of tumors. The evidence of carcinogenicity and tumorigenicity of hexachlorobenzene is further supported by various studies in rats. In rats, target organs for hexachlorobenzene-induced tumors include liver, kidney, adrenal gland and parathyroid gland. Based on the available evidence, EPA has classified hexachlorobenzene in Group B2: sufficient evidence in animals, inadequate evidence in humans. CAG has used data on hepatocellular carcinomas in female rats after oral ingestion to estimate the carcinogenic potency of hexachlorobenzene. The upper bound lifetime cancer risks of $10^{-6}$, $10^{-5}$ and $10^{-4}$ are associated with concentrations of hexachlorobenzene in drinking water of 0.02, 0.2 and 2 $\mu$g/l, respectively.

Based on the weight-of-evidence for carcinogenicity of hexachlorobenzene, leading to a Group B2 classification, EPA is proposing an MCLG of zero for this contaminant.

Public comments are requested on the proposed MCLG for hexachlorobenzene.

10. Hexachlorocyclopentadiene (HEX)

Hexachlorocyclopentadiene [CAS #77–47–4] is an unsaturated, highly reactive, chlorinated cyclic hydrocarbon of low water solubility. HEX is a chemical intermediate used in the manufacture of chlorinated pesticides and flame retardants with essentially no end uses of its own. HEX is currently produced by only one company in the United States. It has been estimated that between 8 and 15 million pounds/year are produced.

*Occurrence and Human Exposure.* The major source of environmental contamination by HEX is the aqueous discharge from production facilities, with small concentrations present as contaminants in commercial products made from it. However, HEX is not frequently found in the environment and, even when present, it is rapidly degraded. Therefore, current environmental exposure is extremely low. Some isolated cases of site contamination due to disposal of HEX wastes have been reported but no data are available on occurrence and exposure from drinking water, food or air.

*Health Effects.* HEX is moderately toxic when given orally, but has been estimated to be 100 times more toxic when inhaled. Oral $LD_{50}$ values for rats, mice and rabbits are in the 500 to 900 mg/kg range. In animal studies, the absorption of unchanged HEX is lessened because of its reactivity with membranes and tissues, and especially with the contents of the gastrointestinal tract. Radioactivity from $^{14}C$–HEX is retained by the kidneys and livers of animals for at least 72 hours after oral or inhalation dosing. Absorbed HEX is metabolized and rapidly excreted, predominantly in the urine and feces with less than one percent of the HEX found in expired air. Metabolites of HEX have not been identified. Subchronic oral dosing of rats (38 mg/kg/day) and mice (75 mg/kg/day) for 91 days produced nephrosis and inflammation and hyperplasia of the forestomach.

Limited data are available on the health effects in humans from exposure to HEX. Isolated instances have occurred that show HEX to cause severe irritation of the eyes, nose, throat and lungs. Human exposures have elicited effects that include short-term irritations, with recovery after cessation of exposure. The long-term health effects of continuous low-level and/or intermittent acute exposure in humans are not known.

There is no information on the long-term health effects of HEX. Therefore, the study selected for calculation of the DWEL is a subchronic, 13-week oral toxicity study [SRI/Southern Research Institute. 1981. Subchronic Toxicity of Hexachlorocyclopentadiene (C53607) in Fischer Rats. Unpublished Report. NTP.]. In this study, HEX was administered in corn oil by gavage to groups of 10 male and 10 female F344 rats at doses of 0, 10, 19, 38, 75 or 150

mg/kg. At the 150 mg/kg level, six male rats died, while one rat in the 75 mg/kg group died as a result of chemical toxicity. Other deaths occurred, but these were attributed to improper gavage technique by the investigators. Stomach lesions (hyperplasia and focal inflammation) were observed in male and female rats at the 38, 75 and 150 mg/kg dose groups and only female rats at the 19 mg/kg dose level. At higher doses (>150 mg/kg) toxic nephrosis in females was observed. According to the investigators, these lesions decreased in severity with decreasing dose, with hyperplasia being the primary lesion. One female rat at the 19 mg/kg dose level had a squamous cell papilloma of the epithelial surface. The only effect reported for the 10 mg/kg dose was a slight depression in body weight in both male and female rats. The NOAEL for this study was reported as 10 mg/kg/day.

EPA has used the NOAEL reported in this study for rats to calculate the DWEL. Since the animals were given daily doses only five days a week, a correction factor (5/7) was used to adjust the NOAEL for continuous exposure from a 5 day to 7 day exposure. A DWEL of 0.25 mg/l was then derived for a 70-kg adult consuming 2 liters of water per day by applying an uncertainty factor of 1,000, which EPA considers appropriate for use with study data that are significantly less-than-lifetime in duration.

$$\text{DWEL} = \frac{10\ \text{mg/kg/day} \times (5/7) \times 70\ \text{kg}}{1{,}000 \times 2\ \text{l/day}} = 0.25\ \text{mg/l}$$

*In vitro* test results from two species (*Escherichia coli* and *Salmonella typhimurium*) have not shown HEX to be a mutagen. Studies on the teratogenic potential of HEX have been conducted in rats, rabbits and mice. The results indicate that HEX is not teratogenic in these species at the levels tested. The data base for carcinogenic effects is neither extensive nor adequate at the present time. Therefore, the Agency has classified this chemical in Group D, i.e., the available data base is inadequate to assess the carcinogenic potential of this substance.

EPA is proposing to regulate hexachlorocyclopentadiene based on its potential to cause nephrosis and inflammation and hyperplasia of the forestomach in laboratory animals. EPA is proposing an MCLG of 0.05 mg/l based upon the DWEL of 0.25 mg/l, assuming a maximum potential drinking water contribution of 20 percent.

$$\text{MCLG} = 0.25\ \text{mg/l} \times 0.2 = 0.05\ \text{mg/l}$$

Public comments are requested on the proposed MCLG for hexachlorocyclopentadiene.

11. *Oxamyl (Vydate).* Oxamyl [S-methyl N, N'-dimethyl-N-(methyl-carbamoyloxyl)-1-thiooxamimidate, CAS # 23135-22-0] also known as vydate, is an insecticide/nematicide widely used for control of insects, mites and nematodes on field crops, fruits and ornamentals. The majority of oxamyl is applied to apples (36 percent), potatoes (33 percent), and tomatoes (20 percent). EPA estimated that 0.4 million pounds of oxamyl were produced in the U.S. in 1982. Oxamyl is highly soluble in water, is relatively stable in aqueous solutions at acidic pH, and hydrolyzes rapidly to an oximino compound at alkaline pH. Studies on the effect of light on the hydrolysis of oxamyl have shown that exposure to light results in rapid decomposition of oxamyl, primarily to the oximino derivative. Rapid decomposition of oxamyl has also been observed in soils under both aerobic and anaerobic conditions. The oximino derivative is the primary metabolite in field studies. Under laboratory conditions, oxamyl is moderately to highly mobile in soils. However, field study data indicate that the mobility of oxamyl in soils is limited. The rapid degradation of oxamyl appears to preclude its rapid movement in soil under normal conditions.

*Occurrence and Human Exposure.* Drinking water occurrence data for oxamyl are limited to a few regional/State studies. There are no national surveys that have addressed the occurrence of oxamyl in drinking water. In Suffolk County, New York, oxamyl residues were detected at 1 to 49 μg/l in 455 of the 15,535 samples tested between 1980 and 1985. The average concentration was 10 μg/l. In Massachusetts, monitoring of 341 public and private water sources in 27 communities indicated that of the 146 wells sampled for oxamyl, 1 was positive at the detection limit of 1 μg/l.

The U.S. Food and Drug Administration collected data from 1982 to 1984 for the Total Diet Study of 234 food items on selected chemicals. Two food samples, raw cucumber and raw green sweet pepper, were found to be contaminated with oxamyl residues of 0.031 and 0.011 ppm, respectively.

No data are available on the levels of oxamyl in air.

Because of the extremely limited data available on the occurrence of oxamyl in drinking water, food and air, it is not possible to describe total exposure or the relative source contributions.

*Health Effects.* Oxamyl has proved to be toxic to laboratory animals when administered orally, via inhalation or after intraperitoneal injection. Acute oral $LD_{50}$ values range from 2.3 to 7.0 mg/kg body weight for three species. Oxamyl is less toxic via the dermal route, with $LD_{50}$ values of 750 and >1,200 mg/kg reported in rabbits and rats, respectively. The major mechanism of toxicity of oxamyl is cholinesterase inhibition. Clinical signs after acute exposure include tremors, salivation and lacrimation. Oxamyl is rapidly absorbed, metabolized, and eliminated in test animals. Animal studies have shown that oxamyl is absorbed from the GI tract. Oxamyl appears to be extensively metabolized after oral or intraperitoneal administration. Several metabolites have been identified in the urine of test animals and most of the oxamyl is excreted within 3 days of administration, primarily in the urine. Little accumulation of oxamyl has been found in tissues, although some accumulation did occur in the skin and hair of test rats.

The principal adverse effect of oxamyl is decrease in body weight. This toxicological effect has been observed in two chronic feeding studies with rats and mice. EPA believes that a chronic study in rats receiving daily doses of oxamyl in the diet for two years is the best available study to calculate the MCLG [Kennedy GL. 1986b. Chronic toxicity, reproductive and teratogenic studies with oxamyl. Fundam. Appl. Toxicol. 7:106–118]. This study was selected because it is a comprehensive, adequately run study of appropriate duration. In this study, groups of 36 weanling rats of each sex were given doses of 0, 2.5, 5.0, and 7.5 mg/kg in the diet daily for 2 years. Significant decreases in body weights were noted in males and females in the groups fed 5.0 and 7.5 mg/kg/day compared to controls

throughout the study. Slight decreases in food consumption of the group fed 7.5 mg/kg/day compared to the control group were reported. No other clinical signs of toxicity attributable to oxamyl administration were reported, and mortality rates were comparable between control and test groups. The group of rats administered 2.5 mg/kg/day did not show any signs of toxicity. This level is similar to the acute oral $LD_{50}$. Also, it appears that tolerance develops with repeated exposures to oxamyl. Based on these data, the 2.5 mg/kg/day dose level was identified as the NOAEL for rats for a 2-year exposure. From this NOAEL, a DWEL of 0.88 mg/l for the 70-kg adult can be derived by applying an uncertainty factor of 100, which is appropriate for use with a NOAEL derived from an animal study, and assuming a consumption of 2 liters of water per day.

$$DWEL = \frac{2.5\ mg/kg/day \times 70\ kg}{100 \times 2\ l/day} = 0.88\ mg/l$$

The teratogenicity and reproductive toxicity of oxamyl have been investigated in rats and rabbits. A teratogenicity study in rats showed no increase in fetal variations or malformations in oxamyl-treated groups fed up to 20.5 mg/kg/day compared to controls. Similarly, a study in which pregnant rabbits were fed oral doses of 2 mg/kg/day oxamyl, no compound-related effects on the fetuses were noted. The only effect noted in the rats and rabbits was decrease in maternal body weight gain. A limited number of *in vitro* mutagenicity assays with oxamyl have shown negative results. The carcinogenic potential of oxamyl has also been evaluated in two studies with rats and mice. In the first study, rats fed oxamyl at levels of up to 7.5 mg/kg/day for 2 years showed no increases in incidence of neoplastic or non-neoplastic lesions [Kennedy, 1986b]. Similar results were obtained in a 2-year feeding study in mice given doses of up to 11.25 mg/kg/day [Kennedy, 1986b]. Oxamyl is not considered to be a carcinogen based on the two studies available, and it has been classified in Group E: No evidence of carcinogenicity.

EPA is proposing to regulate oxamyl based on its observed effect of decreased body weight in test animals. EPA is proposing an MCLG of 0.2 mg/l based upon the DWEL of 0.88 mg/l, assuming a drinking water contribution of 20 percent.

$$MCLG = 0.88\ mg/l \times 0.2 = 0.2\ mg/l$$

Public comments are requested on the proposed MCLG for oxamyl.

12. Polycyclic Aromatic Hydrocarbons (PAHs)

Polycyclic aromatic hydrocarbons (PAHs) are a class of compounds which possess two or more conjugated rings. PAHs are also known as PNAs, for polynuclear aromatic hydrocarbons. In general, PAHs have low water solubility, extremely low vapor pressure and high affinities for particle surfaces. PAHs are not manufactured commercially in the United States, but are ubiquitous in the environment. These compounds form as a result of incomplete combustion of organic material. Major natural sources of combustion include forest fires, volcanoes and peat fires. Anthropogenic combustion sources resulting in the production of PAHs include fossil fuel burning, coal tar and wood burning.

Thousands of compounds can be classified as PAHs. Traditionally, EPA has focused on the following 15 PAHs which are included on the list of 126 priority pollutants (40 CFR, Part 136, Appendix A):

| Abbr. | Name |
|---|---|
| BaA | Benz(a)anthracene. |
| BaP | Benzo(a)pyrene. |
| BbF | Benzo(b)fluoranthene. |
| BbK | Benzo(k)fluoranthene. |
| Chr | Chrysene. |
| DbA | Dibenz(a,h)anthracene. |
| IP | Indenopyrene. |
| Ace | Acenaphthylene. |
| Ant | Anthracene. |
| Bpe | Benzo(g,h,i)perylene. |
| Fth | Fluoranthene. |
| Fl | Fluorene. |
| Na | Naphthylene. |
| Phe | Phenathrene. |
| Pyr | Pyrene. |

These 15 PAHs were selected based on available information on their occurrence and health effects. Information on the occurrence and health effects of PAHs is summarized below. The Agency refers readers to the following documents for additional information: "Occurrence and Exposure Assessment of Polycyclic Aromatic Hydrocarbons in Public Drinking Water Supplies" (U.S. EPA, 1989) and "Drinking Water Criteria Document for Polycyclic Aromatic Hydrocarbons" (U.S. EPA, 1988).

*Occurrence and Human Exposure.* PAHs are of concern primarily because many are known to be potent mutagens and carcinogens. The presence of one PAH in an environmental sample indicates that other PAHs are also likely to be present. PAH mixtures vary widely in composition, and no single compound or group of compounds is known to be a particularly good indicator of total levels of PAHs found in the environment.

Concerns about the human health hazards of PAHs usually focus on inhalation exposures, either from man-made sources (e.g., coke oven emissions, cigarette smoke) or natural sources (e.g., forest fires, volcanoes, peat fires). PAH concentrations in the atmosphere vary with air temperature, amount of sunlight, traffic and the geography of the site. Information on the occurrence of PAHs is most complete for one compound, BaP. Generally, ambient air contains levels of BaP ranging from 0.4 to 3 $ng/m^3$ with levels generally higher in urban areas and higher in winter when home heating contributes to PAHs in air.

PAHs have also been found in numerous foods. Levels of PAHs can become elevated during food preparation, with the highest levels found in charbroiled or smoked meats. The Table below summarizes the levels of BaP and other PAHs found in food.

LEVELS OF BAP AND OTHER PAHS IN FOOD

[Adapted from U.S. EPA, 1980]

| Food (preparation) | BaP content (ppb) | Other PAHs[a] (ppb) |
|---|---|---|
| Meats (Smoked/cooked). | 0.04 to 55 | 0.04 to 161 |
| Fish (Smoked) | 0.2 to 6.6 | 0.2 to 67 |
| Veg. Oils & Margarine. | 0.7 to 8 | 0.7 to 29.5 |
| Fruits | 0.02 to 8[b] | |
| Vegetables | 0.01 to 24[b] | |
| Cereals and grains. | 0.1 to 60[b] | |
| Total Diet (estimated). | 0.1 to 1 | 1.0 to 10[c] |

[a] Concentrations measured for fluorene, anthracene, phenanthrene, fluoranthene, pyrene, benz(a)anthracene, benzo(e)pyrene, and/or benzo(g,h,i)perylene. Range represents extreme values for individual PAH.

[b] Grown in polluted environments.

[c] Range represents estimate of the total of all PAHs found in the diet.

There are two major sources of PAHs in drinking water: (1) Contamination of raw water supplies from natural and anthropogenic sources and (2) leachate from coal tar and asphalt linings in water storage tanks and distribution lines. The concentrations of individual PAHs in raw water sources are generally within the low ng/l to ug/l range. PAHs tend to adsorb onto the surface of particles which are effectively removed by treatment techniques such as filtration. Surface waters tend to have higher concentrations of PAHs than ground waters. However, most surface water systems are subject to new filtration requirements (54 FR 27486, June 19, 1989), which will result in the removal of PAHs in the process.

The major source of elevated levels of PAHs in tap water appears to be the presence of PAH-containing materials in water storage tanks and in the drinking water distribution system. Contact of water with coal tar linings and sealants during storage and distribution can cause the drinking water concentrations of some PAHs to reach 10,000 ng/l. The magnitude of contamination in distribution systems is often determined, in part, by the age of the coatings, contact time and area with water, quantity, and type of coating used, the method of application, deposition of carbonate and other factors. Only a limited data base exists describing the potential for PAHs to leach during water storage and distribution, and available data do not demonstrate a consistent trend with regard to contamination and the type of coal tar lining used. The World Health Organization (WHO) has recommended a ban on coal tar sealants and coating in water storage and distribution systems because of the potential for PAHs to leach from these materials. In addition, WHO has established a standard for BaP of 10 ng/l. Asphalt linings may also be a source of PAHs in drinking water, but the potential for leaching from asphalt linings appears to be quite small.

Several estimates have been published regarding total exposure to PAHs (WHO, 1984; U.S. EPA, 1980; Howard and Santodonato, 1980). The majority of exposure to PAHs is expected to occur via inhalation of PAHs (especially for smokers or for those exposed occupationally to high PAH levels) and via ingestion of PAHs found in food. The contribution drinking water makes to total PAH exposure is believed to be quite small, less than 1 percent, for these three estimates.

*Health Effects.* Limited data are available on the systemic toxicity of many of the PAHs. Animal studies associated with exposure to PAHs tend to be limited in the number of PAHs considered and the route of administration. Toxic effects that have been linked to exposures include anemia and hemolysis. For many PAHs, the available animal and human data are insufficient for determining the likely effects of chronic oral exposure. Recently, EPA has verified RfDs for five non-carcinogenic PAHs, and an RfD is under review for another PAH. There is evidence that BaP, DbA, and BaA may cause immunotoxic effects. BaP has also been shown to cause developmental and reproductive toxicity. However, these effects have only been observed at dose levels higher than those shown to cause significant increases in forestomach tumors.

Several complex mixtures from which PAHs have been identified are known human carcinogens, including coke oven emissions, cigarette smoke, coal tar, and coal tar pitch. Insufficient data are available to determine which, if any, of the individual component PAHs are responsible for the human carcinogenicity of these mixtures. Therefore, no individual PAH has been classified as a Group A, known human carcinogen.

Sufficient data are available from animal studies to classify seven of the PAHs as Group B2, probable human carcinogens. The other eight PAHs are classified as Group D compounds because insufficient data are available to assess their carcinogenic potential.

*Group B2*

Benz(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Chrysene
Dibenz(a,h)anthracene
Indenopyrene

*Group D*

Acenapthylene
Anthracene
Benzo (g,h,i)perylene
Fluoranthene
Fluorene
Naphthalene
Phenanthrene
Pyrene.

Only for BaP are sufficient data available to make a quantitative estimate of cancer potency. The study by Neal and Rigdon [Neal, J. and R.H. Rigdon. 1967. Gastric tumors in mice fed benzo(a)pyrene—A quantitative study. Tox. Rep. Biol. Med. 25:553–557.] was used to estimate cancer risks from oral exposure in the Ambient Water Quality Criteria Document for PAHs (1980). In the Neal and Rigdon study, mice were given BaP in the diet for periods ranging from 70 to 197 days. Ten dietary doses (0, 1, 10, 20, 30, 40, 45, 50, 100 or 250 ppm) were tested. Stomach tumors were observed with a positive dose trend and the incidence increased dramatically in the highest three dose groups compared with the seven lowest groups. Based on the data of the lowest seven groups, EPA estimated a value for the $10^{-6}$, $10^{-5}$ and $10^{-4}$ excess cancer risk level of 0.003 $\mu$g/l, 0.03 $\mu$g/l and 0.3 $\mu$g/l, respectively, using the linearized multistage (LMS) model.

The CRAVE postponed review of the BaP quantitation until completion of a thorough review of the Neal and Rigdon study. Deferring the decision allowed approaches using more of the available dose-response data to be considered. Since the animals in the Neal & Rigdon bioassay were exposed for a variable period of time, an age- and duration-dependent extrapolation model is theoretically more desirable than the LMS model. As this type of modelling is still being considered, CRAVE decided to postpone the acceptance of an ingestion slope factor pending the outcome of the analysis.

Some idea of the oral potency of the other PAHs can be derived from skin painting studies by comparing their relative potency to BaP in skin painting, mutagenicity or other genotoxicity tests. From these studies, it appears that BaP is as potent, or more potent, than the other PAHs considered in this notice.

For carcinogens, the ODW typically sets a reference risk range of $10^{-4}$ to $10^{-6}$ for the MCLs. However, the Agency has only quantified the risks from exposure to BaP, and these risk estimates are still tentative. There are insufficient data for determining the oral potency of the other six carcinogenic PAHs that EPA is considering for regulation. Therefore, a reference risk range could not be calculated.

Since it is difficult to assess the carcinogenic potency of PAHs, EPA has considered alternative approaches for controlling the exposure to PAHs from drinking water. These approaches are: (1) Setting an MCLG of zero for BaP only, based on its carcinogenic potential, and (2) setting an MCLG of zero for the seven carcinogenic PAHs. Because there are different concerns related to each approach, EPA has not yet determined which approach it will adopt in the final rule.

Option 1: Setting an MCLG for BaP only

The health effects information for BaP indicates that it is a potent carcinogen. Supporting evidence includes its *in vitro* mutagenicity tests. In addition, BaP has been found to produce reproductive effects in animals. Based on the available health information for BaP, EPA would set an MCLG of zero for this compound.

Option 2: Setting MCLGs for seven carcinogenic PAHs

EPA is also considering setting an MCLG of zero for each of the seven carcinogenic PAHs. The available data are sufficient to classify these seven PAHs in Group B2, resulting in a health-based goal (MCLG) of zero for all seven.

The Agency is requesting comment on these two approaches. EPA believes that the establishment of an MCLG of zero for BaP under either option is warranted based on the available health information for this chemical. BaP is a known animal carcinogen and preliminary quantitative risk estimates are available. Also, the health data suggest that the potency of BaP is similar to or greater than that of other PAHs found most often in drinking water. The World Health Organization (WHO) has established a standard of 10 ng/l for this compound based on experimental data by Neal and Rigdon (1987). A decision to adopt Option 1, the establishment of a standard for BaP only, would be based on the following: (1) The high potency of BaP relative to other PAHs, (2) the less frequent occurrence of elevated levels of other PAHs in drinking water, (3) evidence that other carcinogenic PAHs always co-occur with BaP, and (4) the relative small contribution of drinking water to total exposure relative to diet. Also, BaP is the only PAH for which sufficient data are available to determine oral potency. Therefore, setting a regulatory limit (i.e., an MCL) in association with an MCLG for the other six carcinogenic PAHs would present special concerns since there would be no way of determining whether risks of exposure to the MCL would fall within the general risk range used by the Agency. In addition, the available control technology for BaP would also remove the other six PAHs if present.

Under Option 2, EPA would set an MCLG of zero for all seven identified carcinogenic PAHs (BaP, PaA, BbF, BbK, Chr, DbA and IP) on the basis that the presence of BaP in drinking water indicates that other PAHs may be present. There is in fact only limited occurrence data on the PAHs other than BaP. The data indicate that when one or more of these six carcinogenic PAHs is reported, BaP is also reported. However, these limited data do not provide a high degree of assurance that BaP is always a good indicator of the presence of these other PAHs. Therefore, setting an MCLG of zero for the seven carcinogenic PAHs would provide additional protection in cases where one or more of these PAHs may occur in drinking water in the absence of BaP. A concern with Option 2, however, as noted above, is that a reference risk range could not be calculated for the additional six carcinogenic PAHs, leading to special concerns with setting MCLs for these contaminants.

EPA is requesting comment on the two options being considered for the regulation of PAHs in drinking water. In particular, public comments are requested on the following issues:

- Should PAHs be regulated as a class, as individual compounds or using a surrogate (i.e., assume that all PAHs are equally or less carcinogenic than BaP)?
- Should EPA regulate other PAHs not covered in the previous discussion but which may be more potent carcinogens and/or more soluble than those PAHs discussed?
- The Agency is currently reviewing several approaches for evaluating the carcinogenic potency of BaP. These include use of the multistage and two-stage risk extrapolation models to evaluate the Neal and Rigdon (1967) bioassay data. Should the Agency be considering other approaches towards modeling BaP's cancer risk potency?

13. Phthalates

Phthalates or phthalic acid esters (PAEs) are primarily used as plasticizers in polyvinyl chloride (PVC) resins. Di(2-ethylhexyl)phthalate, or DEHP, is the most commonly used plasticizer in PVC products. DEHP and other phthalates are ubiquitous in the environment due to their widespread use in many common products such as syringes, dialysis tubing and other medical devices, cable insulation, flooring material, furniture upholstery and wall coverings. In 1977, the United States produced approximately 1.2 billion pounds of phthalates. Annual production worldwide is estimated to be between 3 and 4 billion pounds. Phthalates generally have low water solubilities and vapor pressures.

Although many phthalates are of commercial importance, information on their occurrence and toxicity is available only for a few. The discussion below summarizes information available on the occurrence/human exposure and health effects of the following four phthalates:

| Abbr. | Name |
|---|---|
| DEHP | Di(2-ethylhexyl)phthalate. |
| BBP | Butylbenzyl phthalate. |
| DBP | Dibutyl phthalate. |
| DEP | Diethyl phthalate. |

For additional information on these phthalates, EPA refers readers to the following documents: "Occurrence and Exposure Assessment of Phthalates in Public Drinking Water Supplies," (U.S. EPA, 1989) and "Drinking Water Criteria Document for Phthalic Acid Esters (PAEs)," (U.S. EPA, 1988).

*Occurrence and Human Exposure.* Little data are available on typical environmental levels of phthalates. Exposures to these contaminants can occur via inhalation (e.g., volatilization from car interiors), ingestion (e.g., leaching from plastic food wraps and water pipes) and injection (e.g., leaching from plastic blood bags). Levels of up to 68 mg/kg have been reported for DEHP in wrapped food. Remote ambient air levels of up to 2.9 ng/m$^3$ and occupational air levels of up to 66 mg/m$^3$ have been reported for DEHP. Typical ambient air concentrations ranging between 0.2 and 20 mg/m$^3$ have been reported for phthalates. Available data suggest that air may be the largest source of phthalate exposure.

There is limited information on the levels of phthalates in drinking water. Generally, concentrations are below 10 μg/l. Levels of 0.04 to 102 μg/l have been reported for DEHP in drinking water. Levels reported for two other commonly used phthalates, DBP and BBP, are from 0.02 to 50 μg/l and from 0.4 to 1 μg/l, respectively. Although the available data in various media is limited, it is generally accepted that water constitutes a minor route of exposure.

Because of the limited data available on the occurrence of phthalates in drinking water, air and food, it is not possible to calculate relative source contributions.

*Health Effects.* Phthalates appear to have a low order of acute toxicity in test animals. For those phthalates tested via the oral route, $LD_{50}$s are all greater than 1,000 mg/kg. Information on the acute oral toxicity of phthalates in humans is limited. Three individuals have been exposed to DEHP or DBP. Two volunteers swallowed capsules containing either 5 or 10 g DEHP (about 75 or 150 mg/kg, respectively). No

adverse effects were observed other than gastric disturbances and mild catharsis at the high dose. Accidental ingestion of 10 g of DBP by an adult male produced nausea, vertigo and signs of keratitis and toxic nephritis. Administered doses have been found to be rapidly absorbed from the intestine, peritoneum, blood and lungs. A large percentage of ingested diesters are hydrolyzed, although the intact compounds are often present in the excretory products. Distribution studies indicate that accumulation and retention of these compounds are minimal.

Toxic effects associated with subchronic/chronic exposure include hepatotoxicity and testicular toxicity. Hepatic effects commonly reported after oral administration include enlargement of the liver, effects on the mitochondria, and decreased succinate dehydrogenase activity. Testicular atrophy has been associated with oral exposure to DEHP, BBP and DBP. Oral exposure to DEHP has also been shown to cause decreased fertility and developmental toxicity in test animals. In addition, increased cancer incidence in animal bioassays has been reported for DEHP and BBP.

The Agency has calculated DWELs for DEHP, BBP, DBP and DEP based on hepatic effects. The DWEL for DEHP is based on increased liver weight in female guinea pigs [Carpenter, CP, Weil, CP and Smith, Jr, HF. 1953. Chronic oral toxicity of di-(2-ethylhexyl) phthalate for rats, guinea pigs and dogs. AMA Arch. Ind. Hyg. Occup. Med. 8:219–226]. In this study, guinea pigs (23 or 24/sex/group) were fed diets containing 0, 0.04 or 0.13% DEHP (equivalent to doses of 0, 19 or 64 mg/kg/day) for one year. A LOAEL of 19 mg/kg/day was reported by Carpenter et al. Using this LOAEL, the DWEL is derived as follows:

$$\text{DWEL} = \frac{(19\ \text{mg/kg/day})\ (70\ \text{kg})}{(1{,}000)\ (2\ \text{l/day})} = 0.7\ \text{mg/l}$$

A DWEL of 0.7 mg/l has been derived for the 70-kg adult consuming 2 liters of drinking water per day. An uncertainty factor of 1,000 was used in accordance with NAS/ODW guidelines for use with a LOAEL derived from animal data.

The DWEL for BBP is based on a 26-week feeding study [NTP (National Toxicology Program). 1985. Project No. 12307–02, –03. Hazelton Laboratories America, Inc. Unpublished study.]. In this study, F344 rats (15 males/group) were fed diets containing 0, 0.03, 0.09, 0.28, 0.83 or 2.5% BBP (equivalent to about 0, 17, 51, 159, 470 or 2,875 mg/kg/day, respectively). At 470 mg/kg/day, increased absolute and relative liver weights were observed. At the higher dose, effects on kidney weight and testicular atrophy were also observed. Using 159 mg/kg/day as the NOAEL, the DWEL is derived as follows:

$$\text{DWEL} = \frac{(159\ \text{mg/kg/day})\ (70\ \text{kg})}{(1{,}000)\ (2\ \text{l/day})} = 6.0\ \text{mg/l}$$

A DWEL of 6 mg/l has been derived for the 70-kg adult consuming 2 liters of drinking water per day. An uncertainty factor of 1,000 was used in accordance with NAS/ODW guidelines for use with a NOAEL derived from animal data for less-than-lifetime exposure.

The DWEL for DBP is based on a one-year study (Smith, C.C. 1953. Toxicity of butyl stearate, dibutyl sebacate, dibutyl phthalate and methoxyethyl oleate. Arch. Ind. Hyg. Occup. Med. 7:310–318) in which rats (10 males/group) were fed diets containing 0, 0.01, 0.05, 0.25 or 1.25% DBP (equivalent to doses of 0, 5, 25, 125 or 600 mg/kg/day, respectively). Rats in the high dose group suffered increased mortality. No effects were observed at lower doses. Using 125 mg/kg/day as the NOAEL, the resulting DWEL for DBP is 4 mg/l for a 70-kg adult consuming 2 liters of water per day and using an uncertainty factor of 1,000 to account for less-than-lifetime exposure.

$$\text{DWEL} = \frac{(125\ \text{mg/kg/day})\ (70\ \text{kg})}{(1{,}000)\ (2\ \text{l/day})} = 4\ \text{mg/l}$$

The DWEL for DEP is based on a 16-week study [Brown, D., K.R. Butterworth, I.F. Gaunt, P. Grasso and S.E. Gangolli. 1978. Short-term oral toxicity study of diethylphthalate in the rat. Food Cosmet. Toxicol. 16:415–422] in which rats (15/sex/group) were fed diets containing 0, 0.2, 1 or 5% DEP (equivalent to doses of about 0, 150, 750 or 3,160 mg/kg/day, respectively). Depressed weight gain was observed at the high dose group. Using 750 mg/kg/day as the NOAEL, the resulting DWEL for DEP is 26 mg/l for a 70-kg adult consuming 2 liters of water per day and using an uncertainty factor of 1,000 to account for less-than-lifetime exposure.

$$DWEL = \frac{(750\ mg/kg/day)\ (70\ kg)}{(1{,}000)\ (2\ l/day)} = 26\ mg/l$$

A number of genetic toxicity assays, including the *Salmonella typhimurium* assay, have produced mixed positive/negative and weakly positive results for DEHP, DBP, DBP and DEP. The National Toxicology Program evaluated the carcinogenic potential of DEHP in rats and mice in a 2-year feeding study. [NTP (National Toxicology Program). 1982. Carcinogenesis Bioassay of di-(2-ethylhexyl)phthalate (CAS No. 117–81–7) in F344 rats and B6C3F$_1$ mice (feed study). NTP Tech. Rep. NIN/PUB–82–1773, NTP–80–37. NTIS PB82–184011]. DEHP was administered via the diet at levels of 0, 6,000 or 12,000 ppm (rats) or 0, 3,000 or 6,000 ppm (mice). The study included 50 rats or mice/sex/group. The animals were approximately six weeks old when the study began, and survivors were sacrificed at 105 weeks. All animals were necropsied, and a histologic examination of tissues was made. DEHP caused an increased incidence of liver tumors in both rats and mice. An increased incidence of hepatocellular carcinomas was observed in female rats and mice (both doses), and male mice (high dose). High dose male rats had an increased incidence of hepatocellular carcinomas/neoplastic nodules. Based on the weight-of-evidence, EPA has classified DEHP in Group B2: Sufficient evidence of carcinogenicity in animals.

Some evidence of an increased incidence of mononuclear cell leukemia has been reported for female rats exposed to BBP [NTP (National Toxicology Program). 1982. Carcinogenesis Bioassay of Butylbenzyl phthalate (CAS No. 85–68–7) in F344 rats and B6C3F$_1$ mice (feed study). NTP Tech., Rep. NTIS PB83–118398, Research Triangle Park, NC. 98 p.]. The available data for BBP meets the criteria for limited animal evidence and hence BBP is considered to be in Group C according to U.S. EPA Carcinogenic Risk Assessment Guidelines. However, this equivocal evidence may be clarified with the completion of a current NTP bioassay on BBP. The NTP is repeating the rat bioassay because of problems with mortality in male rats in the original study.

There is insufficient information to assess the carcinogenic potential of DBP and DEP. Therefore, these two compounds are classified in Group D.

Since the potential systemic toxicity/carcinogenicity varies for individual phthalates, EPA has considered several approaches in establishing a drinking water standard for this class of compounds. These approaches include setting an MCLG for DEHP only (zero), (2) DEHP (zero) and BBP (MCLG based on the calculated DWEL), and (3) the four phthalates discussed in this notice (zero for DEHP; MCLGs based on DWELs for BBP, DBP and DEP).

*Option 1:* Setting an MCLG of zero for DEHP only

The proposed MCLG would be zero for DEHP since there is sufficient evidence on the carcinogenicity of this compound (this compound is classified in Group B2 based on carcinogenic effects in two animal species). Cancer risks based on the application of the multistage model to the NTP bioassay data result in an estimated upper-bound $10^{-4}$, $10^{-5}$ and $10^{-6}$ cancer risk levels for DEHP corresponding to drinking water concentrations of 300, 30 and 3 $\mu g/l$, respectively.

*Option 2:* Setting an MCLG of zero for DEHP and an MCLG for BBP based on the DWEL

This option includes a proposed MCLG for 88P in addition to an MCLG for DEHP of zero. The MCLG for BBP would be based on the calculated DWEL of 6 mg/l, using an assumed drinking water contribution of 20 percent and an additional uncertainty factor of 10 due to BBP's present classification as a Group C carcinogen. (This classification may be reevaluated after completion of a current NTP bioassay on BBP mentioned earlier.) Provided BBP remains in Group C, the proposed MCLG would therefore be 0.1 mg/l or:

$$\frac{6\ mg/l \times 0.2}{10}$$

*Option 3:* Setting an MCLG for the four phthalates

In addition to an MCLG of zero for DEHP and an MCLG of 0.1 mg/l for BBP, this option would include proposed MCLGs for DBP and DEP based on DWELs of 4 mg/l and 26 mg/l for DBP and DEP, respectively. The proposed MCLGs would be 0.8 mg/l for DBP and 5 mg/l for DEP. These MCLGs assume a drinking water contribution of 20 percent to total exposure. No additional uncertainty factor was included to account for the possible carcinogenicity of these compounds since EPA has classified them as Group D carcinogens.

More information is available on the health effects of DEHP than for other phthalates. There is some concern that regulation of this compound will lead industry to substitute other phthalates that may be equally toxic but which simply have not been as thoroughly tested. For example, the similarity of di-isononyl phthalate (DINP) and di-isodecyl phthalate (DIDP) to DEHP in their ability to induce peroxisomal proliferation has raised concerns that these phthalates may also exhibit similar carcinogenic properties. However, EPA is not proposing regulations for these compounds at the present time because of both insufficient information on their health effects and the lack of any evidence indicating their presence in drinking water.

*Proposed Option.* Based on what is presently known about the toxicity, the occurrence of these compounds in drinking water and the relative contribution of drinking water to the total human exposure, the Agency proposes Option 1. The Agency has determined that there is sufficient information available on the systemic toxicity and on the carcinogenic effects of DEHP to propose an MCLG of zero for this compound. The available occurrence data indicate that DEHP has been found most often in drinking water, while the three other phthalates have rarely been found, and reported levels of the other phthalates are below levels of health concern. Also, drinking water is a minor route of exposure to phthalates in general. Therefore, based on toxicity, occurrence and exposure considerations, EPA proposes to regulate DEHP only at this time. It is highly unlikely that Options 2 and 3 will result in a reduction in exposure to these compounds since the reported levels in drinking water are below levels that would result in adverse health effects. However, comments are requested on whether EPA should regulate BBP, DBP, DEP or any other phthalates in addition to DEHP according to the options described above or in any other manner.

14. Picloram

Picloram [4-amino-3,5,6-trichloropicolinic acid; CAS #1918-02–1] also known as Tordon, is a registered herbicide used for control of broadleaf and woody plants. EPA estimated that

0.3 million pounds of picloram were produced in the U.S. in 1982. It is commercially available in a variety of concentrations and formulations, some containing 2,4-dichlorophenoxyacetic acid (2,4-D). "Agent White", a mixture of picloram and 2,4-D, was widely used as a defoliant in Vietnam. The free acid is slightly soluble in water, and it is subject to photochemical degradation with a typical half-life of 2 to 7 days in water, depending on conditions. Degradation of picloram is extremely slow in the absence of light and under anaerobic conditions in soil or water. Picloram has a typical half-life in soil of a few months following normal application and normal field conditions. Under certain use conditions, picloram is suspected of leaching.

*Occurrence and Human Exposure.* Drinking water occurrence data for picloram are limited to contamination incidence surveys developed by the EPA and two studies conducted by the Minnesota Departments of Health and Agriculture during July 1985 to June 1987. The EPA surveys indicate that picloram was detected in South Dakota in two samples from 17 sites at values of 520 and 8,300 μg/l. In Minnesota, picloram was not detected in any of 100 samples taken from observation, irrigation, and drinking water wells. The detection limit was 1.8 μg/l. In a second survey, picloram was found in five samples from three wells, out of 400 wells sampled, at a median concentration of 0.16 μg/l and a range of 0.08 to 0.63 μg/l. The detection limit was 0.04 μg/l.

No data are available on the levels of picloram in ambient air.

EPA's Office of Pesticides and Toxic Substances conducted an evaluation of drinking water guideline values in relation to the Theoretical Maximum Residue Contribution (TMRC) for picloram. Using the reference dose for picloram (0.07 mg/kg/day) and assuming that picloram is present on treated crops at the tolerance levels established by EPA, the total theoretical dietary exposure including water is estimated at 1.9 μg/kg/day for the overall U.S. population. The theoretical exposure from water only was estimated to be 0.065 μg/kg/day.

The available data on picloram are not adequate for describing total exposure or the relative source contributions for the general population. It would appear however that even when present at tolerance levels, picloram in the diet and in drinking water would contribute a very small percentage of the RfD.

*Health Effects.* Picloram exhibits slight to moderate toxicity in a number of species, with $LD_{50}$ values ranging from 0.7 to 8.2 g/kg body weight. Acute toxicity effects include central nervous system toxicity, weakness, diarrhea, and weight loss. Animal studies have demonstrated that picloram is almost completely absorbed from the GI tract of mammals. It distributes through the body, with some preferential accumulation in the kidneys. Picloram is not significantly metabolized and is rapidly excreted in unaltered form, primarily in the urine. A study with six human male volunteers on absorption and excretion of picloram showed similar results, i.e., rapid absorption and excretion in the urine. When exposure ceases, picloram is rapidly depleted from blood and tissues without significant retention.

The principal toxic effect of picloram is liver swelling, but the mechanism of the change is not known. This toxicological effect has been observed in several animal studies which include mice, rats or dogs. Two studies have been considered for the determination of the MCLG. The first study is a six-month (subchronic) study in dogs receiving daily doses of picloram in the diet [Dow. 1982. Dow Chemical U.S.A., Lake Jackson, TX. Results of a six-month dietary toxicity study of picloram (4-amino-3,5,6-trichloropicolinic acid) administered in the diet to male and female dogs. TXT:K–038323–(28). MRID 00110534 (CBI)]. In this study, picloram was fed to beagle dogs in the diet at dose levels of 0, 7, 35, or 175 mg/kg/day for six months (six male and six female dogs per dose level). Statistically significant increased absolute and relative liver weights, decreased food consumption, decreased body weight gain, and changes in liver enzymes were observed at the highest dose (175 mg/kg/day) for both male and females. At 35 mg/kg/ day, statistically significant increased absolute and relative liver weights were observed in males only. No compound-related effects were detected in females at 35 mg/kg/day or in males or females at 7 mg/kg/day. The NOAEL for this study was identified as 7 mg/kg/day.

The second study considered by EPA for the calculation of the MCLG is a two-year chronic study in rats [Landry TD, Johnson KA, Cieszlak FS, Wolfe EL, Kropscott BE. 1986. Picloram: A two-year dietary chronic toxicity-oncogenicity study in Fischer 344 rats. Dow Chemical Co. Unpublished study. MRID 00155940 (CBI)]. In this study, picloram was fed to rats in the diet at dose levels of 0, 20, 60, or 200 mg picloram/kg body weight for 2 years. Relative liver weights of male and female rats increased at the 60 mg/kg/day dose level at 6 months and at the 200 mg/kg/day level at both 6 and 12 months. At the completion of the study, a statistically significant increase in the incidence of minimally increased size and altered tinctorial properties of the centrilobular hepatocytes was observed in the rats receiving 60 and 200 mg/kg/day. No compound-related effects were observed at the lowest dose level of 20 mg/kg/day, and this level represents the NOAEL for rats in this study.

EPA believes that the subchronic study in dogs should be chosen to calculate the MCLG because dogs appear to be the most sensitive species to picloram. The 7 mg/kg/day dose level was identified as the NOAEL for dogs for a six month exposure. From a NOAEL of 7 mg/kg/day, a DWEL of 2.5 mg/l for the 70-kg adult can be derived by applying an uncertainty factor of 100, which is appropriate for use with a NOAEL derived from animal data, and assuming a consumption of 2 liters of water per day.

$$\text{DWEL} = \frac{7\ \text{mg/kg/day} \times 70\ \text{kg}}{100 \times 2\ \text{l/day}} = 2.5\ \text{mg/l}$$

A limited number of genetic toxicity assays that have been performed with picloram indicate no compelling evidence of mutagenic effects in relevant biological systems. Tests in microorganisms have yielded mostly negative (but a few weakly positive results). For example, picloram has shown mutagenic activity in *S. coelicolor*, but negative results have been obtained in other well-conducted microbial, mammalian cell, and Drosophila mutagenicity studies. Thus, the weight of evidence indicates that picloram has low mutagenic potential.

The carcinogenic potential of picloram has been evaluated in two studies. The National Cancer Institute conducted a

study in rats and mice (NCI. 1978. National Cancer Institute. Bioassay of picloram for possible carcinogenicity. Technical Report Series No. 23, Washington, DC: Department of Health, Education and Welfare). No increase in malignant tumors was observed in male rats or in male or female mice with dietary exposures of 208 to 723 mg/kg/day for 80 weeks, but a statistically significant increase in neoplastic nodules in the liver was observed in female rats. Evaluation of this study indicates that there may have been cross-contamination of test animals with animals already exposed to known carcinogens and there is the possibility that picloram was contaminated with hexachlorobenzene. Thus, the results of this study are questionable. A second study did not report any statistically significant increase in tumor incidence in rats that received 20 to 200 mg picloram/kg body weight in the diet for 2 years [Landry TD, Johnson KA, Cieszlak FS, Wolfe EL, Kropscott BE. 1986. Picloram: A two year dietary chronic toxicity-oncogenicity study in Fischer 344 rats. Dow Chemical Co. Unpublished study. MRID 00155940 (CBI)]. Based on the weight-of-evidence and consistent with EPA's guidelines for Carcinogenic Risk Assessment, EPA has classified picloram as a Group D chemical. The available studies are not adequate to assess the carcinogenic potential in humans.

The proposed MCLG is 0.5 mg/l based on the DWEL of 2.5 mg/l and an assumed drinking water contribution of 20 percent.

$$\text{MCLG} = 2.5\ \text{mg/l} \times 0.2 = 0.5\ \text{mg/l}$$

Public comments are requested on the proposed MCLG for picloram. Specific comments are requested on whether the dog study NOAEL (7 mg/kg/day) should be preferred over the rat study NOAEL (20 mg/kg/day), even though it is based on less-than-lifetime exposure.

15. Simazine

Simazine [2-chloro-4,6-bis(ethylamino)-1,3,5-triazine; CAS No. 122-34-9] is a selective preemergent herbicide used to control annual grasses and broadleaf weeds in deep-rooted crops, and in turf grass sod production. It is also used to control herbaceous weeds in non-agricultural land, to control submerged weeds, and as an algicide. The amount of simazine produced in the United States between 1978 and 1980 was estimated to be approximately 8 to 11 million pounds (Zygaldo, 1982). The net supply available for use in the United States (after exports) was estimated at 7 to 9 million. Simazine is sufficiently persistent in soil and water and sufficiently mobile in both media that it may present a threat to ground water drinking water supplies via leaching and percolation, and to surface water supplies via precipitation runoff.

*Occurrence and Human Exposure.* Simazine was one of the analytes in the National Screening Program for Organics in Drinking Water (NSP) survey conducted by EPA from June 1977 to March 1981. Finished drinking water samples, collected from 12 groundwater systems and 104 surface water systems throughout the United States, were analyzed for simazine. Only 1 of the 12 groundwater systems sampled (a system serving more than 100,000 persons) had a concentration of simazine in excess of the quantification limit of 0.1 μg/l. The value of the positive sample was 1 μg/l. Of the 104 surface water systems sampled, 13 systems contained simazine in excess of the quantification limit of 0.1 μg/l. The range of positive values of simazine was 0.1 to 4 μg/l. Regional studies conducted in California, Minnesota and Ohio reported low levels of contamination. The highest reported value on these studies was 2 μg/l.

One study contained data on the presence of simazine in ambient air. During eight rain events from May to September, ambient air and rain samples were taken. The range and median concentration in air were found to be $<0.06$ to 2 $\mu g/m^3$ and 0.18 $\mu g/m^3$, respectively. The range and median concentration in rain water were 0.0086 to 0.16 μg/l and 0.033 μg/l, respectively.

Limited data are available for the occurrence of simazine in food. The Total Diet Study of 234 food items conducted by the U.S. Food and Drug Administration (FDA) in FY 82-88 included simazine in its group of selected chemicals. Simazine was not detected in the 24 market baskets collected in these studies.

The Office of Pesticides and Toxic Substances conducted an analysis of drinking water guidelines values in relation to the TMRC for pesticides including simazine. Using the 1986 interim reference dose of 0.005 mg/kg/day, a total theoretical dietary exposure including water was calculated to be 0.0049 mg/kg/day for the overall U.S. population. The theoretical exposure from water alone was calculated to be 0.00045 mg/kg/day. However, this value is somewhat higher than that calculated based on actual monitoring data from drinking water sources. It appears from this analysis that food would be the major source of exposure to simazine.

The available data on simazine are not adequate for describing total exposure or the relative source contributions for the general population.

*Health Effects.* EPA did not propose an MCLG for simazine in the November 13, 1985 notice due to questions raised regarding the adequacy of the data used by the NAS to calculate the ADI for simazine based upon an 80-week study. The Agency found this study invalid for use in the derivation of an MCLG for simazine. Other studies available at that time had not been evaluated by EPA to determine their adequacy for derivation of an MCLG. Since then, these candidate studies have undergone careful review and an interim RfD of 0.005 mg/kg/day was verified in 1986 by EPA's RfD Workgroup based on a 1965 three-generation study by Woodard Research Corporation. However, recently new chronic studies have been submitted to the Agency and evaluated. Based on these new data, the RfD has been re-verified in 1989. After consideration of all the available studies, EPA believes that there are sufficient data upon which to base an MCLG for simazine. EPA is proposing an MCLG of 0.001 mg/l for simazine, based upon an evaluation of noncarcinogenic effects and a classification of the compound in Group C: Possible human carcinogen. Public comments are also being requested on whether the MCLG should be set at 0.004 mg/l (see discussion below).

Three old studies were considered for calculation of the interim RfD (1986) and three recent studies were considered for the re-verified RfD (1989) and DWEL for simazine. For the interim RfD of 1986, the first study involved a three-generation reproduction study with rats [Woodard Research Corporation. 1965. Three-generation reproduction study of simazine in the diet of rats. MRID Nos. 23365, 80631]. In this study, two groups of 40 weanling rats (20 per sex) were used; one served as the control, and the other was fed approximately 5 mg simazine/kg/day in the diet continuously during two gestation periods. After 74 days of dosing, animals were paired and mated for 10 days, resulting in $F_{1a}$ litters. After weaning, the parents were re-mated to produce $F_{1b}$ litters. The $F_1$ animals were divided into two test groups. One group was fed approximately 2.5 mg simazine/kg/day and the other group was fed approximately 5 mg simazine/kg/day. After 81 days of dosing, animals were mated, and $F_{2a}$ and $F_{2b}$ litters were produced. $F_{2b}$ rats were mated to produce $F_{3a}$ and $F_{3b}$ litters. Reproductive performance of male rats could not be adequately evaluated in this study. Noted decreases in body weight for the animals (parent and progeny) did not

appear to be significant at the end of the study because the final mean body weights were within the acceptable changes for the Maximum Tolerated Dose. Reproductive performance of female rats fed simazine was the same as that of controls, and no teratological changes were detected. Thus, a NOAEL of 5 mg/kg/day was initially identified for this study and an interim RfD was proposed in 1986 based on this NOAEL and a 1,000-fold uncertainty factor (UF) due to the absence of adequate chronic studies at that time. Other studies considered for calculation of the RfD at that time were a two-year oral chronic study in rats [Gysin H, Knusli E. 1960. Chemistry and herbicidal properties of triazine derivatives. In: Metcalf RL, ed. Advances in pest control research. Vol. III. New York: Interscience Publishers, Inc., pp. 328–330] and a two-year oral chronic study in dogs [NAS. 1977. National Academy of Sciences. Safe Drinking Water Committee. Drinking Water and Health. Part 1, Chap. 1–5. Washington, DC: National Academy of Sciences, pp. V–184, V–348]. These studies were not selected because they lacked sufficient documentation on which to base evaluation or dose response.

Ciba-Geigy recently submitted three chronic studies that were considered for the 1989 re-verified RfD and DWEL. The old 1965 three-generation study in rats was also reevaluated for this re-verification but it was not used in these calculations due to several flaws in the protocol of this study and due to the perceived potential effects on the male reproductive potency.

The first of the three new studies is a chronic toxicity/oncogenicity study in Sprague-Dawley rats [Ciba-Geigy Corporation. 1988a. Simazine-technical: 104-week oral chronic toxicity and carcinogenicity study in rats. McCormick GC, Arthur AT and Green JD. MRID Number: 406144–05. Study Number: 2–0011–09. Testing Facility: Pharmaceuticals Division, Summit, NJ.] In this study technical simazine was administered in the diet to Sprague-Dawley rats at dose levels of 0, 10, 100 or 1,000 ppm; these doses corresponded to a mean daily actual consumption of 0.4, 4.2 or 45.8 mg/kg/day simazine for males and 0.5, 5.3 or 63.1 mg/kg/day for females. A satellite group of 10 animals/sex/dose were used for interim sacrifice and an additional 10 animals/ sex in each of the control and high-dose groups were similarly given the untreated diet for the remainder of the study period after the first 52 weeks of initial exposure. In addition, the main study consisted of two main groups of animals: 20 animals/sex/dose were selected for the chronic portion of the study and 50 animals/sex/dose were considered for the oncogenic portion of the study. All animals were observed daily for clinical symptoms of toxicity and mortality. Food consumption was determined weekly for weeks 1 through 13, biweekly for weeks 14 through 25 and monthly thereafter. Water consumption was measured on weeks 1, 2, 53 through 64, and 102 on study. All animals were palpated for masses at 4-week intervals for the first 9 months on study and at 2-week intervals thereafter. Female rats had a significantly increased trend in mortality with dose increments of simazine. Significant reductions in body weight gain and hematologic parameters in females at 100 ppm (5.3 mg/kg/day) and in the additional animals, 30/sex/dose, which were included to evaluate chronic toxicity. A significant increase in mammary carcinomas was reported at the mid- and high-dose (5.3 and 63.1 mg/kg/day) females. Pituitary tumors were also increased in females in the top two dosage groups. A slight but not statistically significant increase in liver tumors in males at the highest dosage (45.8 mg/kg/day) was observed. The NOAEL for this study was established at 10 ppm (0.5 mg/kg/day) for the weight changes and hematologic parameters observed in females at 100 ppm (5.3 mg/kg/day).

The second new study is a one-year feeding study in the beagle dog [McCormick GC and Green JD. Ciba-Geigy Corporation. 1988b. Simazine-technical: A 52-week oral feeding study in dogs. MRID Number: 406144–02. Study Number: 87122. Testing Facility: Pharmaceuticals Division, Summit, NJ.]. In this study technical simazine was mixed with the diet at concentrations of 0, 20, 100 or 1,250 ppm; the actual dose through food consumption was 0, 0.68, 3.4 or 43 mg/kg/day for females and 0, 0.76, 3.6 or 45 mg/kg/day for males (with average rounded values for both sexes of 0, 0.7, 3.5 or 44 mg/kg/day). Four animals/sex/dose were used. A dose-related decrease in body weight gain was noted in females at the mid- and high-dose levels and in high-dose males. Decreases in hematologic parameters were noted in females at the mid- and high-dose levels and in high-dose males. An increase in platelet count was also noted in both sexes at the high dose level. The NOAEL in this study is 7 mg/kg/day and the LOAEL is 3.5 mg/kg/day.

The third new study is a chronic/oncogenic study in mice [Hazellette JR and Green JD. Ciba-Geigy. 1988c. Simazine-technical; 95-week oral toxicity/oncogenicity study in mice. Accession/MRID Number: 406144–04, Lab. Study Number: 842121. Testing Facility: Pharmaceuticals Division, Summit, NJ.]. In this study, simazine technical was administered in the diet for 95 weeks to groups of 60 mice/sex/group at the following concentrations: 0, 40, 1,000 or 4,000 ppm (equivalent to 0, 6, 150 or 600 mg/kg/day). There were no specific compound-related effects except for a decrease in mean body weight in both males and females in the mid- and high-dose groups, and a decrease in food consumption in mid- and high-dose males and in mid-dose females. There were decreases in erythroid parameters which may have been related to weight loss. The incidence of amyloidosis was high in all groups. The LOAEL from this study, based on decreased weight gain, is 1,000 ppm (150 mg/kg/day) and the NOAEL is 40 ppm (6 mg/kg/day).

From the three new studies discussed above, it appears that the dog and rat are more sensitive to simazine toxicity than the mouse. Therefore, the study selected for the calculation of the RfD and the DWEL is the two-year chronic feeding/oncogenicity study in rats (Ciba-Geigy, 1988a), as supported by the recent one-year feeding study in dogs (Ciba-Geigy, 1988b). The NOAEL for systemic effects other than oncogenicity in the rat study was identified as 0.5 mg/kg/day and supported by 0.7 mg/kg/day in the dog study. From the NOAEL, a DWEL of 0.058 mg/l has been derived. An uncertainty factor of 300 was applied which is consistent with guidelines for use with a NOAEL from chronic studies in animals in the presence of a data gap (in this case, a new three-generation study would be needed to remove the additional uncertainty factor of 3). The calculation assumed consumption of 2 liters of water per day for a 70-kg adult.

$$\text{DWEL} = \frac{0.5\ \text{mg/kg/day} \times 70\ \text{kg}}{300 \times 2\ \text{l/day}} = 0.058\ \text{mg/l}$$

Most tests of mutagenic potential for simazine have been negative, both in procaryotic and eucaryotic systems. The herbicide was nonmutagenic in the *Salmonella*/microsome assay, mitotic recombination assay in *Saccharomyces*, and unscheduled DNA synthesis assay in human fibroblasts. However, it induced sex-linked recessive lethal mutations in *Drosophila* and sister chromatid exchanges in human lymphocytes.

Simazine did not produce teratogenic effects in the rat by gavage at doses up to 600 mg/kg or in the rabbit at doses up to 200 mg/kg.

No increase in tumor frequency and/or neoplastic lesions was observed in mice dosed at 215 mg/kg/day by stomach tube for 18 months [Innes JRM, Ulland BM, Valerio MG et al. 1969. Bioassay of pesticides and industrial chemicals for tumorigenicity in mice. A preliminary note. J. Natl. Cancer Inst. 42:1101–1114]. While low-level carcinogenicity was reported for mice and rats following chronic feeding, dermal application, or subcutaneous injections of simazine [Pliss GB, Zabezhinsty MA. 1977. Carcinogenicity of symmetric triazine derivatives. Pest. Abstr. 5:72–1017], details of the tumor types and incidences in comparison with the control groups were not available, only an abstract of the study was available for evaluation. Therefore, these data remain questionable. However, in a recent study in mice (Ciba-Geigy, 1988c), simazine technical was administered in the diet to groups of 60 male and 60 female Crl:CD1(ICR)BR mice at 0 (control), 40, 1,000 or 4,000 ppm for 95 weeks (equivalent to 0, 6, 150 or 600 mg/kg/day). There were no increases in neoplasms reported for any dosed group. There was no evidence of a compound-related effect on survival or target organ toxicity. The dosing was considered to be adequate for assessing the oncogenic potential of simazine, based on body weight gain depressions of 14 percent in males and 19 percent in females seen at 1,000 ppm.

In a two-year dietary study in Charles River rats [Hazelton Laboratories. 1960. A Two-year Dietary Feeding Study—Albino Rats. Unpublished study submitted by Ciba-Geigy Corporation. MRID 00037752, 00025441, 00025442, 00042793 and 00080626] administered simazine in feed at 0, 1, 10 or 100 ppm, the authors reported an excess of thyroid and mammary tumors in high-dose females. However, complete histopathological details were not provided and statistical significance was not evaluated. Although the high incidence of respiratory and ear infections in all groups renders this study unsuitable for evaluating the carcinogenic potential of simazine, another recent study [Ciba-Geigy, 1988a] indicates that simazine is oncogenic in the Sprague-Dawley rat with the mammary glands as the target organ as previously noted with atrazine and propazine. This study is a chronic feeding/oncogenicity study in Sprague-Dawley rats with 10 animals/sex/dose used as a satellite group for interim sacrifice after 52 weeks of exposure and 50 animals/sex/group used as the main oncogenicity study. The animals were exposed to technical simazine in the feed for 104 weeks at 0, 10, 100 or 1,000 ppm. This dose corresponded to 0.4, 4.2 or 45.8 mg/kg/day for males and 0.5, 5.3 or 63.1 mg/kg/day for females. At the 52-week interim sacrifice, increased incidences of mammary gland adenocarcinomas (5 of 10 animals) and pituitary gland adenomas (6 of 10 animals) were observed in female albino rats (no increase was found in the males) fed simazine at a dose of 1,000 ppm in the diet. No mammary gland carcinomas and 1/10 pituitary adenomas were observed in the control females. Increased incidence of mammary gland hyperplasia (6 of 10 animals) was noted in the males (no increase was found in the females) fed 1,000 ppm simazine in diet. The incidences of mammary gland hyperplasia in rats receiving 10 or 100 ppm were not significantly different from those of controls at 52 weeks. However, at the end of the study, female rats had a significantly increasing trend in mortality with dose increments of simazine. There were significant differences in mortality in two dose groups, 100 and 1,000 ppm as compared with controls. The females exhibited a significantly increasing trend in mammary gland carcinomas with increasing doses of simazine. In the pairwise comparison with controls, two dose levels, 100 and 1,000 ppm, were also significantly different.

Applying the criteria described in EPA's guidelines for the assessment of carcinogenic risk (U.S. EPA, 1986a), EPA classifies simazine in Group C. This category is used for substances with limited or equivocal evidence of carcinogenicity in animals in the absence of human data. This classification is supported by the fact that two similar compounds, atrazine and propazine, also cause mammary tumors in the same animal species (the rat) and are classified in Group C. In addition, the EPA has determined that data are available to attempt to quantify the carcinogenic potential of simazine and thus has derived a unit of carcinogenic potency/risk, the $q_1^*$. The cancer unit risk is usually derived from a multistage model with a 95% upper confidence limit providing a low-dose estimate of cancer risk. It is unlikely that the cancer risk is in excess of the stated values.

For contaminants classified in Group C, EPA currently considers two options for setting the MCLG as described in 50 FR 46949, November 13, 1985. The lead option is to set the MCLG based on noncarcinogenic endpoints (the RfD adjusted for an adult drinking an average of 2 L water/day over a lifetime) if adequate data exist. To account for possible carcinogenicity, an additional uncertainty factor of up to 10 is applied. If adequate noncarcinogenic data are not available, the second option consists of setting the MCLG in the theoretical excess cancer risk range of $10^{-5}$ to $10^{-6}$.

Since adequate noncarcinogenic data are available for simazine, EPA is proposing an MCLG derived from a rat chronic/carcinogenicity study (Ciba-Geigy, 1988a) as supported by a one-year dog study (Ciba-Geigy, 1988b). This results in a DWEL of 0.06 mg/l and an MCLG of 0.001* mg/l. The MCLG includes an additional uncertainty factor of 10 for Group C contaminants and assumes a drinking water contribution to total intake of 20%.

* Note that a 3-fold modifying factor has been used in the calculation of the RfD to account for a data gap (the 3-generation rat study needs to be repeated). If this study becomes available to the Agency in the near future, and if the data from this anticipated study would not raise any specific toxicological concerns at the dose used in the calculation of the MCLG, the 3-fold modifying factor may be dropped and the DWEL would then be 0.2 mg/l and the MCLG would be 0.004 mg/l.

$$MCLG = \frac{0.058 \text{ mg/l}}{10} \times 0.2 = 0.001 \text{ mg/l}$$

If adequate noncarcinogenic data were not available, and the second option applied, the MCLG would lie in the range of $10^{-5}$ to $10^{-6}$ which would be 3 to 0.3 μg/1** (or 0.003 to 0.0003 mg/l).

EPA invites comments on the carcinogenic classification of simazine, the appropriateness of either of the two options for setting an MCLG for Group C contaminants and the 20% drinking water contribution to total exposure.

16. *1,2,4-Trichlorobenzene.* Trichlorobenzene has three isomers: 1,2,3-, 1,2,4- and 1,3,5-trichlorobenzene. The 1,2,4- isomer is the most prevalent commercially. Major uses of 1,2,4-trichlorobenzene include those as a precursor in herbicide manufacture and as a dye carrier. Current production figures in the U.S. are not available. EPA estimated the industrial production in 1983 for 1,2,4-trichlorobenzene [CAS # 120–82–1] to be in the range of 3 to 8 million pounds.

*Occurrence and Human Exposure.* Two Federal surveys were used to estimate levels of 1,2,4-trichlorobenzene in the nation's public water supply: the National Organic Monitoring Survey (NOMS) and the National Screening Program for Organics in Drinking Water (NSP). Using combined survey data, it is estimated that no groundwater system contains 1,2,4-trichlorobenzene at levels greater than 0.5 μg/1. For surface water supplies, it is estimated that about 99.7 percent have either no 1,2,4-trichlorobenzene present or levels <0.5 μg/1. It is estimated that 0.3 percent of surface water systems have levels >0.5 μg/1; none are estimated to have 1,2,4-trichlorobenzene above 5 μg/1.

The daily intake of 1,2,4-trichlorobenzene from drinking water has also been estimated. The majority of persons using public drinking water supplies would be exposed to intake levels at or below 0.014 μg/kg/day.

Insufficient data were obtained on levels of trichlorobenzene in foods to determine a daily dietary intake from that source.

Data on levels of trichlorobenzene (undifferentiated by isomer) in ambient air in the United States were used to determine the respiratory intake of trichlorobenzene. It was estimated that rural/remote and maximum levels of trichlorobenzene in ambient air would approximate 0 and 2.7 μg/m³, respectively. Using these data, respiratory intake for the adult male was estimated to vary between 0 and 0.89 μg/kg/day.

The total daily multimedia intake of trichlorobenzene was estimated using a range of low to high intake values for air and drinking water exposure. Total intake was estimated to range from 0 to 1 μg/kg/day for the adult male. At a typical urban air level of 0.062 μg/m³, drinking water would not be the predominant source of exposure unless drinking water levels reached 0.7 μg/l and above.

*Health Effects.* The effects in mammals of acute exposure by various routes to trichlorobenzenes, mainly the 1,2,4- isomer, include local irritation, convulsions, and death. Livers, kidneys, adrenals, mucous membranes and brain ganglion cells appear to be target organs with effects including edema, necrosis, fatty infiltration of livers, increased organ weights, porphyrin induction and microsomal enzyme induction. The $LD_{50}$ is 756 mg/kg in rats.

Quantitative data on the toxic effects of trichlorobenzenes following subchronic exposure by various routes have been obtained in a variety of species. In general, these studies indicate that the liver and kidney are target organs. Inhalation of 1,2,4-trichlorobenzene at >74.2 mg/m³ (10 ppm) for 6 hours/day, 5 days/week for up to 26 weeks induced hepatocytomegaly and hyaline degeneration in several species, although these effects may be to some extent reversible. Subchronic oral studies have also shown that the trichlorobenzenes induce hepatic xenobiotic metabolism and porphyria. Subchronic dermal exposure resulted in mild to moderate irritation. The best available data indicate a NOAEL of 22.3 mg/m³ (equivalent to 1.31 mg/kg/day) for 1,2,4-trichlorobenzene in an inhalation study. One chronic study, on the effects of 1,2,4-trichlorobenzene painted on the skin of mice for two years, reportedly increased mortality in females at the low dose (30 percent solution in acetone) and in both sexes at the high dose (60 percent solution).

The Agency considered a 90-day oral rat study [Carlson and Tardiff. 1976. Effect of chlorinated benzenes on the metabolism of foreign organic compounds. Toxicol. Appl. Pharmacol. 36:383–394] for the derivation of the DWEL. This study established a NOAEL and LOAEL of 20 and 40 mg/kg/day, respectively. The endpoint was changes in liver-to-body weight ratio. However, this well-conducted oral study was not used as a basis for the derivation of the DWEL. When all available data are examined, it is evident that the most sensitive indicator of toxicity is porphyria. Since Carlson and Tardiff (1976) did not assay for this endpoint, their NOAEL and LOAEL values may be inaccurate, and thus not useful in deriving the DWEL. Therefore, two subchronic studies [Korciba et al. 1981. Subchronic toxicity study of 1,2,4-trichlorobenzene in the rat, rabbit and beagle dog. Drug Chem. Toxicol. 4(3):229–249; and Watanabe et al. 1978. Subchronic toxicity studies of 1,2,4-trichlorobenzene in experimental animals. Toxicol. Appl. Pharmacol. 45(1):332–333] were used instead in the derivation of the DWEL.

Korciba et al. (1981) exposed 20 male Sprague-Dawley rats, 4 male New Zealand rabbits and 21 male beagle dogs by inhalation to 1,2,4-trichlorobenzene (99.4 percent pure) at levels of 0, 223 mg/m³ (30 ppm) or 742 mg/m³ (100 ppm) for 7 hours/day, 5 days/week for a total of 30 exposures in 44 days. There were no significant effects on body weight, hematologic indices or serum biochemistry tests. Upon necropsy, gross and comprehensive histological examination revealed no significant treatment-related effects in any of the species. At the 742 mg/m³ level, increased liver weights were detected in dogs and rats and increased kidney weights in rats. Urinary excretion of porphyrin was increased in rats exposed to 1,2,4-trichlorobenzene at 223 or 742 mg/m³, which the investigators interpreted as a

** Although for Class C oncogens ODW uses an extra 10-fold safety factor, the Office of Pesticide Programs computed the unit risk $q_1^*$ for simazine as $1.2 \times 10^{-1}$ (mg/kg/day)$^{-1}$. Using this $q_1^*$, the risk level associated with 0.001 or 0.004 mg/1 is $3.4 \times 10^{-6}$ or $1.4 \times 10^{-5}$, respectively. The unit oncogenic risk, $q_1^*$, has been calculated in human equivalent using the multistage model. This estimate is based upon mammary gland carcinomas in female Sprague-Deby rats. Since there was a significantly increasing trend in mortality in female rats with dose increments, Weibull 83 has been used to calculate the $q_1^*$. The $q_1^*$ is an estimate of the upper (95 percent) bound on risk. However, the true value of the oncogenic risk is unknown and the lower limit of risk may be as low as zero (Ref: U.S. EPA, 1989. Simazine Quantitative Risk Assessment, Two Year Chronic/Oncogenicity Rat Study. Memo by Bernice Fisher, June 5).

compound-specific physiologic effect rather than a toxic effect. A follow-up study supported this interpretation.

The same investigators exposed male and female Sprague-Dawley rats to 1,2,4-trichlorobenzene at 0, 22.3 mg/m³ (3 ppm) or 74.2 mg/m³ (10 ppm) for 6 hours/day, 5 days/week for 3 months. The results, which were reported in an abstract (Watanabe et al., 1978), indicated that urinary excretion of porphyrins was slightly increased in the 74.2 mg/m³ group during exposure, but returned to control range 2 to 4 months after exposure. Since this appeared to be the most sensitive indicator in rats, and exposure to trichlorobenzene at 22.3 mg/m³ did not cause increased porphyrin excretion, 22.3 mg/m³ was considered a NOAEL for rats by the authors. This dose was converted to an equivalent drinking water dose of 1.31 mg/kg/day by applying conversion factors and assumptions, as shown in the Health Criteria Document. An uncertainty factor of 1,000 is applied to the NOAEL of 1.31 mg/kg/day because this NOAEL was derived from a subchronic study. The resulting DWEL for the 70-kg adult consuming 2 liters of drinking water per day is 0.046 mg/l.

$$\text{DWEL} = \frac{1.31\ \text{mg/kg/day} \times 70\ \text{kg}}{1{,}000 \times 2\ \text{l/day}} = 0.046\ \text{mg/l}$$

Results of two reports on mutagenicity tests with *Salmonella typhimurium* test strains were negative. However, this test system is generally insensitive to chlorinated compounds.

There is presently no evidence that 1,2,4-trichlorobenzene is (or is not) carcinogenic. One study [Yamamoto et al. 1982. Chronic toxicity and carcinogenicity test of 1,2,4-trichlorobenzene on mice by dermal painting. J. Nara. Med. Assoc. 33:132–145 (Jap.)] where 30 percent or 60 percent solutions of 1,2,4-trichlorobenzene in acetone were applied to the skin of Slc.ddy mice twice weekly for two years was evaluated by the EPA. The Agency determined that insufficient information was presented in this study to allow an acceptable interpretation of the data to be made. Also, this single study was found to be clearly inadequate for making any conclusions about carcinogenicity in humans. Therefore, the trichlorobenzenes are classified in Group D.

The MCLG for 1,2,4-trichlorobenzene has been calculated from the DWEL derived using the study conducted by Watanabe et al. (1978). Assuming a 20 percent contribution from drinking water to total exposure, the MCLG is 0.009 mg/l.

$$\text{MCLG} = 0.046\ \text{mg/l} \times 0.2 = 0.009\ \text{mg/l}$$

EPA requests comments on the proposed MCLG for 1,2,4-trichlorobenzene.

17. 1,1,2-Trichloroethane

The primary use of 1,1,2-trichloroethane [1,1,2-TCE; CAS #79–00–5] is in the production of vinylidene chloride. Other applications include its use in adhesives and lacquer, production of teflon tubing, and as a solvent in manufacture of fats, waxes, natural resins, alkaloids, and chlorinated rubber. An estimated 124 million pounds of 1,1,2-TCE was produced in the U.S. during 1974, based on the manufacture of vinylidene chloride. The U.S. EPA estimates the gross annual discharge of 1,1,2-TCE waste in the U.S. to be 4 million pounds.

*Occurrence and Human Exposure.* The Groundwater Supply Survey (GWSS) conducted from 1980 to 1981 included 1,1,2-TCE as one of the analytes. A total of 929 finished drinking water supplies serving more than 25 individuals were sampled. None of the samples contained 1,1,2-TCE in excess of the minimum quantifiable concentration of 0.5 μg/l. The National Screening Program for Organics in Drinking Water (NSP) conducted from 1977 to 1981 examined both raw and finished drinking water from 166 water systems for 1,1,2-TCE and 50 other volatile organic chemicals. In this study, chlorodibromomethane and 1,1,2-TCE coeluted and, thus, were not distinguishable. The study results indicated that five samples were positive for chlorodibromomethane or 1,1,2-TCE, or both. The reported concentrations were from 0.2 to 12 μg/l. The minimum quantifiable concentration for 1,1,2-TCE was 0.1 μg/l.

Limited data are available on the occurrence of 1,1,2-TCE in ambient air. Values reported for samples taken in 1980 indicated a mean concentration of 0.12 μg/m³ for 1,1,2-TCE in an urban environment.

No data are available on the occurrence of 1,1,2-TCE in food.

The available information on the occurrence of 1,1,2-TCE in drinking water, food, and air is insufficient to determine national distribution of intake by any of these routes of exposure.

*Health Effects.* Acute oral $LD_{50}$ values for 1,1,2-trichloroethane of 378 and 491 mg/kg have been reported for mice, and $LD_{50}$ values in the range of 100 to 835 mg/kg have been reported for rats. The estimated oral $LD_{50}$ for 1,1,2-trichloroethane in dogs is 720 mg/kg. Side effects accompanying acute oral exposure include gastric irritation, red or hemorrhaged lungs, and pale liver. In a study on the metabolic disposition of radiolabeled 1,1,2-trichloroethane in rodents, most of the oral dose was absorbed within 48 hours after administration. Approximately 72 to 76 percent of the radiolabel appeared in the urine and feces, and 10 to 14.5 percent was present in the expired air. The major route of elimination is the urine. Short-term oral exposure to 1,1,2-trichloroethane is hepatotoxic in several species of animals. Hepatotoxicity in rats was indicated by increases in serum glutamic-oxaloacetic transaminase (SGOT) and serum glutamic-pyruvic transaminase (SGPT). In dogs, histological examination revealed renal and hepatic necrosis and fatty degeneration of the liver; vacuolization of hepatocytes, dilation of renal collecting ducts, and irritation of the gastrointestinal tract were also observed.

There are two approaches that EPA considered for estimation of the DWEL for 1,1,2-TCE: (1) utilization of two 90-day drinking water studies in mice [Sanders VM et al. 1985. Humoral and Cell-mediated Immune Status of Mice Exposed to 1,1,2-Trichloroethane. Drug Chem. Toxicol. 8:357–372; White KL et al. 1985. Toxicology of 1,1,2-Trichloroethane in the Mouse. Drug Chem. Toxicol. 8:333–355], with application of an additional uncertainty factor to account for a less- than-lifetime exposure; or (2) selection of a chronic toxicity/oncology study with rats [NCI. 1978. National Cancer Institute. Bioassay of 1,1,2-Trichloroethane for Possible Carcinogenicity—DHEW Publication No. (NIH)78–1324. National Institutes of Health, Bethesda, MD] in

which the lower dose used in the 78-week study might serve as a NOAEL.

The studies of Sanders et al. (1985) and White et al. (1985) were selected for the calculation of the DWEL because they are adequate studies in which mice of both sexes were exposed to 1,1,2-trichloroethane for 90 days. The NCI study was not used because using histopathology failed to detect effects at much higher exposure levels than the selected studies. In the studies conducted by Sanders et al. (1985) and White et al. (1985), animals were exposed to 0, 20, 200 or 1,000 mg/l of 1,1,2-trichloroethane in water; corresponding to intakes of 0, 4.4, 46 and 305 mg/kg/day for males and 0, 3.9, 44 and 384 mg/kg/day for females. Clinical chemistry parameters and organ weights indicated adverse effects on the liver of mid- and high-dose males and high-dose females. Water consumption in high-dose males was depressed 30 percent, and a dose-related reduction in weight gain was statistically significant. Females showed no effects with respect to water consumption and weight gain. Mice of both sexes had altered serum chemistries that indicated possible adverse effects on the liver. Females exhibited a non-dose-related increase in fibrinogen levels and a dose-dependent decrease in prothrombin time. The LOAEL seen in females at the 200 mg/l level (44 mg/kg dose) was based on decrease in prothrombin time and in hemagglutination. At this same dose level there was a reduction of cytochrome P-450 levels and aniline hydroxylase activity and an increase in SGOT and SAP activities. In males, the LOAEL was 46 mg/kg, based on reductions in liver weights and liver glutathione. The NOAEL in both males and females was at the 20 mg/l (4.4 and 3.9 mg/kg, respectively) dose level. The lower value of 3.9 mg/kg was used to calculate a DWEL of 0.14 mg/l for a 70-kg adult consuming 2 liters of water per day by applying an uncertainty factor of 2,000 (which is used with a NOAEL derived from an animal study of less-than-lifetime duration).

$$\text{DWEL} = \frac{3.9\ \text{mg/kg/day} \times 70\ \text{kg}}{1{,}000 \times 2\ \text{l/day}} = 0.14\ \text{mg/l}$$

1,1,2-Trichloroethane was nonmutagenic in various strains of *Salmonella typhimurium* either with or without metabolic activation. Weakly positive results were reported in a mammalian cell transformation assay with BALB/c-3T3 cells. When injected intraperitoneally (ip) into rats and mice, $^{14}C$-1,1,2-trichloroethane bound covalently to DNA, RNA, and protein of the liver, kidney, lung, and stomach.

In the NCI (1978) study evaluating the oncogenicity of 1,1,2-trichloroethane, the compound was administered by gavage to male and female Osborne-Mendel rats 5 days/week for 78 weeks at average dose levels of 46 and 92 mg/kg/day. No significant neoplastic changes were observed in treated animals as compared to control rats. It was concluded that there is no convincing evidence to indicate carcinogenicity of 1,1,2-trichloroethane in Osborne-Mendel rats under the conditions of the study. In contrast, male and female B6C3F$_1$ mice, given the compound at average dose levels of 195 or 390 mg/kg/day, 5 days/week for 78 weeks, developed hepatocellular carcinomas and adrenal gland pheochromocytomas at levels significantly greater than those seen in control animals. It was concluded that under the conditions of the bioassay, 1,1,2-trichloroethane is carcinogenic in B6C3F$_1$ mice, causing hepatocellular carcinomas and adrenal pheochromocytomas. EPA has classified 1,1,2-trichloroethane in Group C based on the limited evidence of carcinogenicity in mice.

As with simazine (see discussion above), the EPA has determined that data are available to attempt to quantify the carcinogenic potential of 1,1,2-trichloroethane and thus has derived a unit of carcinogenic potency/risk. If adequate noncarcinogenic data were not available, the MCLG would be in the range of $10^{-5}$ to $10^{-6}$ which would be 0.006 to 0.0006 mg/l.

Since adequate noncarcinogenic data are available for 1,1,2-trichloroethane, EPA is proposing an MCLG derived from the studies conducted by Sanders et al. (1985) and White et al. (1985). The proposed MCLG is 0.003 mg/l. This MCLG has been calculated from the DWEL of 0.14 mg/l by applying a safety factor of 10, which is the norm for Group C carcinogens, and assuming a 20 percent contribution of drinking water to total exposure.

$$\text{MCLG} = \frac{0.14\ \text{mg/l}}{10} \times 0.2 = 0.003\ \text{mg/l}$$

The second option would involve setting the MCLG at 0.06 mg/l based on a risk of $10^{-5}$. Public comments are requested on the two options for setting the MCLG for 1,1,2-trichloroethane, i.e., using a noncarcinogenic endpoint to set the MCLG as proposed, or setting the MCLG based on a cancer risk range of $10^{-5}$ to $10^{-6}$. Specifically, are there any other studies that may have an impact on the MCLG?

18. 2,3,7,8-Tetrachlorodibenzo-p-dioxin

2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD; Dioxin; CAS #1746-01-6] is one of the most toxic and environmentally stable tricyclic aromatic compounds having the dibenzo-para-dioxin structure. It is a contaminant formed in the production of 2,4,5-trichlorophenol. It is also a contaminant of a few chlorinated phenoxy acids (especially the herbicide 2,4,5-trichlorophenoxy acetic acid and silvex) and hexachlorophene. Additionally, it may be formed as an impurity during the pyrolysis of chlorinated phenols, chlorinated benzenes, and polychlorinated diphenyl ethers.

*Occurrence and Human Exposure.* There are limited data available for describing general population exposure to dioxin. No drinking water occurrence data for dioxin are available from national, regional, or state studies. Similarly, no national or regional studies are available on the presence of 2,3,7,8-TCDD in ambient air.

The occurrence of 2,3,7,8-TCDD residues in commercial fish and other foods have been reported. The National Dioxin Study sampled whole fish and filets at 395 sites not associated with 2,4,5-TCP and derivative herbicide production, and detected 2,3,7,8-TCDD in 112 composite samples. 2,3,7,8-TCDD was detected in 23 of 29 samples taken from the Great Lakes region, including sport fish consumed by humans. Positive values ranged from <25 to 41 parts per trillion (ppt).

2,3,7,8-TCDD has also been detected at levels ranging between 5 to 60 ppt in the adipose tissue of beef cattle with access to rangeland that had been treated with 2,4,5-T.

Because of the limited data available on the national occurrence of dioxin in air, food and drinking water, it is not possible to describe typical exposure levels or relative source contributions. EPA has a multi-media risk assessment study of dioxin under way under a legal Consent Agreement between EPA and environmental groups. This study will provide additional information on occurrence and human exposure to dioxin from potential water sources and from eating fish in the near future.

*Health Effects.* There are great differences in species sensitivity to 2,3,7,8-TCDD, with $LD_{50}$s ranging from 0.6 μg/kg bw in the guinea pig to 5 mg/kg bw in the hamster. Acute effects observed in species tested include liver damage, weight loss, thymic atrophy, and immunosuppression. 2,3,7,8-TCDD is readily absorbed by mammals following oral or dermal exposure and is rapidly distributed to tissues with a high lipid content. The liver appears to be the major site of accumulation in many species. Metabolism of 2,3,7,8-TCDD occurs slowly, with the polar metabolites excreted in the urine.

EPA has selected a three-generation reproduction study in rats as a basis for the DWEL [U.S. EPA. 1984. Ambient Water Quality Criteria for 2,3,7,8-Tetrachloro-dibenzo-p-dioxin. Prepared by the Office of Health and Environmental Assessment, Environmental Criteria Assessment Office, Cincinnati, OH for the Office of Water Regulations and Standards, Washington, DC. EPA 440/5–84–007]. The rationale as presented in this document is as follows:

> 2,3,7,8-TCDD displays an unusually high degree of reproductive toxicity. It is teratogenic, fetotoxic and reduces fertility. In a 3-generation reproductive study, Murray et al. (1979) reported a reduction in fertility after daily dosing at 0.1 or 0.01 μg 2,3,7,8-TCDD/kg in the $F_1$ and $F_2$ generations of Sprague-Dawley rats. Although Murray et al. (1979) considered the lowest dose tested, 0.001 μg/kg, to be a no-observed- adverse-effect level (NOAEL), a re-evaluation of these data by Nisbet and Paxton (1982), using different statistical methods, indicated that there was a reduction in the gestation index, decreased fetal weight, increased liver-to-body weight ratio, and increased incidence of dilated renal pelvis at the 0.01 μg/kg dose. The re-evaluated data would suggest that equivocal adverse effects were seen at the lowest dose (0.001 μg/kg/day) and that this dose should, therefore, represent a lowest-observed-adverse-effect level (LOAEL). Schantz et al. (1979) found reductions in fertility and various other toxic effects in rhesus monkeys fed a 50 ppt 2,3,7,8-TCDD diet for 20 months. This corresponds to a calculated daily dose of 0.0015 μg 2,3,7,8-TCDD/kg/day. These results suggest that monkeys may be somewhat more sensitive than rats, since the effects in monkeys were more severe and not equivocal. Since the data from the limited study by Schantz et al. (1979) are supportive of the findings by Murray et al. (1979), it seems reasonable to determine an RfD based on the LOAEL.

A DWEL of 0.000035 μg/1 was derived for the 70-kg adult from the LOAEL of 0.001 μg/kg/day by dividing the LOAEL by an uncertainty factor of 1,000 (which is appropriate for use with a LOAEL from an animal study), and assuming a consumption of 2 liters of water per day.

$$\text{DWEL} = \frac{0.001\ \mu\text{g/kg/day} \times 70\ \text{kg}}{1{,}000 \times 2\ \text{l/day}} = 0.000035\ \mu\text{g/l}$$

2,3,7,8-TCDD has been demonstrated to be teratogenic in rats, mice and rabbits, and feticidal in monkeys. The major toxic signs and terata observed were cleft palate in mice, edema, hemorrhage, and kidney anomalies in rats and extra ribs in rabbits. Some epidemiological studies have indicated a possible teratogenic effect in humans, but the evidence is not sufficient to reach a firm conclusion. *In vivo* and *in vitro* mutagenicity tests have produced inconclusive evidence as to the mutagenicity of 2,3,7,8-TCDD.

However, a number of bioassays have demonstrated this compound to be a potent animal carcinogen. A number of epidemiological studies have attempted to relate 2,3,7,8-TCDD exposure to carcinogenicity but studies with exposure to 2,3,7,8-TCDD alone have generally been limited by small sample sizes and short follow-up period. Other studies are confounded by exposure to multiple compounds. Taken together, the epidemiological studies based on exposure to 2,3,7,8-TCDD by itself are inadequate to establish a relationship between 2,3,7,8-TCDD and the development of tumors in humans. 2,3,7,8-TCDD contaminated phenoxy herbicides have been associated with soft-tissue sarcomas, lymphomas, and stomach cancer in humans. EPA has classified the 2,3,7,8-TCDD contaminated phenoxy herbicides as category B1 based on limited evidence of cancer in humans. In comparison, a number of cancer bioassays have clearly demonstrated the carcinogenic potential of 2,3,7,8-TCDD in animals [Korciba RJ et al. 1978a. Results of a Two-year Chronic Toxicity and Oncogenicity Study of 2,3,7,8-Tetrachlorodibenzo-p-dioxin in Rats. Toxicol. Appl. Pharmacol. 46(2):279–303; Kociba RJ et al. 1978b. Toxicologic Studies of 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) in Rats. Toxicol. Occup. Med. 4:281–287; Van Miller et al. 1977a. Increased Incidence of Neoplasms in Rats Exposed to Low Levels of 2,3,7,8-Tetra-chlorodibenzo-p-dioxin. Chemosphere. 6(10):625–632; Van Miller et al. 1977b. Increased Incidence of Neoplasms in Rats Exposed to Low Levels of 2,3,7,8-Tetrachloro-dibenzo-p-dioxin. Chemosphere. 6(9):587–544; Toth et al. 1979. Carcinogenicity Testing of Herbicide 2,4,5-Trichlorophenoxyethanol Containing Dioxin and of Pure Dioxin in Swiss Mice. Nature. 278(5704):548–549; NTP (National Toxicology Program). 1982a. Carcinogenicity Bioassay of 2,3,7,8-Tetrachlorodibenzo-p-dioxin (CAS No. 1746–01–06) in Osborne-Mendel Rats and B6C3F1 Mice (Gavage Study). NTP, Research Triangle Park, NC. NTP Tech. Rep. Ser. Issue 209; NTP (National Toxicology Program). 1982b. Carcinogenesis Bioassay of 2,3,7,8-Tetrachlorodibenzo-p-dioxin (CAS No. 1746–01–6) in Swiss-Webster Mice (Dermal Study). NTP, Research Triangle Park, NC. NTP Tech. Rep. Ser. 20]. Adenomas or carcinomas of the thyroid, hepatocellular carcinomas, carcinomas of the tongue and hard palate, and adenomas of the adrenal gland have all been produced in rats and mice.

Based on the weight-of-evidence from the animal studies, EPA has classified 2,3,7,8-TCDD in Group B2 (i.e., sufficient animal evidence of carcinogenicity). Because 2,3,7,8-TCDD is usually found in association with other materials (e.g., chlorophenols, phenoxyacetic acids, combustion products, etc.), it is difficult to evaluate the carcinogenicity of 2,3,7,8-TCDD by itself in humans. The carcinogenic risk estimate has been derived from the feeding study of female

Sprague-Dawley rats conducted by Kociba et al. (1978a,b). For a 70-kg human drinking 2 liters of water per day, the upper-limit individual lifetime risk of $10^{-4}$ corresponds to a concentration of 2,3,7,8-TCDD of $2.2 \times 10^{-5}$ µg/l.

The proposed MCLG for 2,3,7,8-TCDD is zero based on its classification as a Group B2 carcinogen. EPA requests comments on the proposed MCLG for 2,3,7,8-TCDD.

## IV. Determination of Proposed MCLs

The MCLs being proposed by EPA are as follows:

TABLE 4.—PROPOSED MCLS FOR THE IOCS AND THE SOCS

| Compound | Proposed MCL (mg/l) |
|---|---|
| Inorganics: | |
| Antimony | 0.01/0.005 [1] |
| Beryllium | 0.001 |
| Cyanide | 0.2 |
| Nickel | 0.1 |
| Sulfate | 400/500 [2] |
| Thallium | 0.002/0.001 [1] |
| Organics: | |
| Dalapon | 0.2 |
| Di(ethylhexyl)adipate | 0.5 |
| Di(ethylhexyl)phthalate [3] | 0.004 |
| Dichloromethane (Methylene chloride). | 0.005 |
| Dinoseb | 0.007 |
| Diquat | 0.02 |
| Endothall | 0.1 |
| Endrin | 0.002 |
| Glyphosate | 0.7 |
| Hexachlorobenzene | 0.001 |
| Hexachlorocyclopentadiene | 0.05 |
| Oxamyl (Vydate) | 0.2 |
| PAHs: | |
| Benzo(a)pyrene | 0.0002 |
| Benz(a)anthracene | 0.0001 |
| Benzo(b)fluoranthene | 0.0002 |
| Benzo(k)fluoranthene | 0.0002 |
| Chrysene | 0.0002 |
| Dibenz(a,h)anthracene | 0.0003 |
| Indenopyrene | 0.0004 |
| Picloram | 0.5 |
| Simazine | 0.001 |
| 1,2,4-Trichlorobenzene | 0.009 |
| 1,1,2-Trichloroethane | 0.005 |
| 2,3,7,8-TCDD (Dioxin) | $5 \times 10^{-8}$ |

[1] EPA proposes an MCL of 0.01 mg/l for antimony, and MCL of 0.002 mg/l for thallium based upon a PQL of ten times the MDL; EPA also proposes as an alternative option for public comment an MCL of 0.005 mg/l for antimony, and an MCL of 0.001 mg/l for thallium based on a PQL of five times the MDL.

[2] EPA is proposing two alternative options for the sulfate MCL.

[3] EPA also requests comment on setting an MCL of 0.1 mg/l for butylbenzyl phthalate.

Under today's proposal all community (CWS) and non-transient, non-community water systems would be required to meet the MCLs. Although sulfate is associated with acute health effects, EPA is not proposing that the MCL apply to transient, non-community water systems due to the low severity of effects and fast acclimatization to high sulfate concentrations. The proposed standard is based on the potential for gastroenteritis in infants. This population appears to be the high risk population because of the potential for dehydration, which has been fatal in third world countries. Transient populations may suffer intestinal distress and diarrhea if individuals are not used to high sulfate levels. However, these adverse effects are short term in nature and the human body adjusts readily to the higher levels. Because transient populations can be adversely affected by this acute effect, EPA requests comments on whether the proposed MCL for sulfate should apply to transient systems.

As noted earlier, the SDWA directs EPA to set the MCL "as close to" the MCLGs "as is feasible." The term "feasible" means "feasible with the use of the best technology, treatment techniques, and other means, which the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking costs into consideration)." SDWA section 1412(b)(5). Each national primary drinking water regulation which establishes an MCL must list the technology, treatment techniques, and other means which the Administrator finds to be feasible for meeting the MCL [SDWA section 1412(b)(6)].

The present statutory standard for "best available technology" (BAT) under section 1412(b)(5) represents a change from the provision prior to 1986, which required EPA to judge feasibility on the basis of "best technologies generally available" ("BTGA"). The 1986 amendments to the SDWA changed BTGA to BAT and added the requirement that BAT must be tested for efficacy under field conditions, not just under laboratory conditions. The legislative history explains that Congress removed the term "generally" to assure that MCLs "reflect the full extent of current technology capability." [S. Rep. No. 56, 99th Cong., 1st Sess., at 6 (1985)]. Read together with the legislative history, EPA has concluded that the statutory term "best available technology" is a broader standard than "best technology generally available" and that this standard allows EPA to select a technology that is not necessarily in widespread use, as long as it has been field tested beyond the laboratory. In addition, EPA believes this change in the statutory requirement means that the technology selected need not necessarily have been field tested for each specific contaminant. Rather, EPA may project operating conditions for a specific contaminant using a field tested technology from laboratory or pilot systems data.

Based on the statutory directive for setting the MCLs, EPA derives the MCLs based on an evaluation of (1) the availability and performance of various technologies for removing the contaminant, and (2) the costs of applying those technologies. Other factors which are considered in determining the MCL include the ability of laboratories to measure accurately and consistently the level of the contaminant with available analytical methods. For carcinogens, EPA also evaluates the health risks that are associated with various levels of the contaminants with the goal of ensuring that the risks at the MCL fall within the $10^{-4}$ to $10^{-6}$ risk range that the Agency considers protective of public health and therefore achieves the overall purpose of the SDWA.

EPA's initial step in deriving the MCL is to make an engineering assessment of technologies which are capable of removing a contaminant from drinking water. This assessment determines which of those technologies are "best." EPA reviews the available data to determine technologies which have the highest removal efficiencies, are compatible with other water treatment processes, and are not limited to a particular geographic region. A detailed discussion of EPA's engineering assessment of the available technologies for treating each contaminant and the proposed BAT(s) is contained in Section IV–B, below.

Based on the removal capabilities of the various technologies, EPA calculates the level of each contaminant that is achievable by their application to relatively clean raw water sources. [See H.R. Rep. 1185, 93d Cong., 2nd Sess. at 13 (1974); 132 Cong. Rec. S6287, May 21, 1986, statement of Sen. Durenberger.]

In evaluating whether technologies are economically available, EPA considers whether they are reasonably affordable by regional and large metropolitan public water systems. This standard was established when the SDWA was enacted in 1974 [see H.R. Rep. No. 93–1185 at 18 (1974)] and reaffirmed when the Act was amended in 1986 [see 132 Cong. Rec. S6287 (May 21, 1986) (statement of Sen. Durenberger)]. EPA also evaluates the total national compliance costs. This evaluation considers the number of systems that will have to install treatment in order to comply with the MCL. The lower the MCL, the greater the number of systems that may have to install BAT in order to achieve compliance. EPA believes that national

costs should be considered by the Agency as part of its determination of what MCL level is "feasible."

The feasibility of setting the MCL at a precise level is also influenced by laboratory ability to measure reliably for the contaminant. EPA derives practical quantitation levels (PQLs) which reflect the lowest level that can be measured by good laboratories under normal operating conditions within specified limits of precision and accuracy. (A detailed explanation of the PQL may be found in previous notices; see 52 FR 25699 and 54 FR 22100.) Because compliance with the MCL is determined by analysis with approved analytical techniques, the ability to analyze consistently and accurately for a contaminant at the MCL is important to enforce a regulatory standard. Thus, the feasibility of meeting a particular level is affected by the ability of analytical methods to determine with sufficient precision and accuracy whether such a level is actually being achieved. This factor is critically important in determining the MCL for carcinogenic contaminants, for which EPA proposes to set the MCLG at zero, a number which by definition cannot be measured. The limitations of analytical methods to determine contaminant levels with sufficient precision and accuracy at the proposed MCLG may be a limiting factor for some noncarcinogens as well. Limits of analytical detection and quantitation require that the MCL be set at some level greater than the MCLG for these contaminants. In these cases, EPA examines the reduction capability of BAT and the accuracy of analytical techniques as reflected in the PQL to determine the appropriate MCL level.

EPA also evaluates the health risks that are associated with various contaminant levels in order to ensure that the MCL adequately protects the public health. For drinking water contaminants, EPA sets a reference risk range for carcinogens at $10^{-4}$ to $10^{-6}$ excess individual risk from lifetime exposure. Most regulatory actions in a variety of EPA programs generally target this range using conservative models which are not likely to underestimate the risk. Since the underlying goal of the Safe Drinking Water Act is to protect the public from adverse effects due to drinking water contaminants, EPA seeks to ensure that the health risks associated with MCLs for carcinogenic contaminants are not significant.

Below is a detailed discussion of the Agency's derivation of the proposed MCLs.

*A. Analytical Methods*

The SDWA directs EPA to set an MCL for a contaminant "if, in the judgment of the Administrator, it is economically and technologically feasible to ascertain the level of such contaminant in water in public water systems." SDWA Section 1401(1)(c)(ii). To make this threshold determination for contaminants proposed today, EPA evaluated the availability, costs and the performance of analytical techniques which measure drinking water contaminants. This evaluation is discussed below. EPA also considered the ability of laboratories to measure consistently and accurately for a contaminant (i.e., the PQL) to determine the appropriate MCL.

The reliability of analytical methods is critical at the maximum contaminant level. Therefore, each analytical method was evaluated for accuracy or recovery (lack of bias) and precision (good reproducibility) at the MCL range(s). The primary purpose of this evaluation is to determine:

- Whether analytical methods exist to measure drinking water contaminants;
- Reasonable expectations of technical performance by analytical laboratories at the MCL levels; and
- Analytical costs.

In selecting analytical methods, EPA considered the following factors:

(a) Reliability (i.e., precision/accuracy) of the analytical results;

(b) Specificity in the presence of interferences;

(c) Availability of enough equipment and trained personnel to implement a national monitoring program (i.e., laboratory availability);

(d) Rapidity of analysis to permit routine use; and

(e) Cost of analysis to water supply systems.

1. Inorganic Chemicals

Analytical methods exist to measure each inorganic contaminant covered by today's proposed rule. Table 5 lists the analytical methods available for the inorganic chemical contaminants in this notice. Most of the analytical methods listed in this table have been used for many years in water analyses. Two new analytical techniques are now available for the determination of metals (antimony, beryllium, nickel and thallium) and sulfate. These techniques are: inductively-coupled plasma—mass spectrometry (ICP–MS) for the metals and ion chromatography for sulfate. EPA requests public comments on whether these two techniques should be considered available technologies for purposes of this rule.

TABLE 5.—AVAILABLE METHODOLOGY FOR INORGANIC CONTAMINANTS

| Contaminant | Methodology (6) | EPA (1) | ASTM(2) | SM(3) | USGS(4) | Other |
|---|---|---|---|---|---|---|
| Antimony | Atomic Absorption; Furnace Technique | 204.2 | | 304 | | |
| | Inductively-Coupled Plasma | 200.7 | | | | |
| | ICP Mass Spectrometry | 5 200.8 | | | | |
| | Hydride-Atomic Absorption Spectrometry | | D-3697 | | | |
| Beryllium | Atomic Absorption; Furnace Technique | 210.2 | D-3645 | 304 | | |
| | Inductively-Coupled Plasma | 200.7 | | 305 | | |
| | ICP Mass Spectrometry | 5 200.8 | | | | |
| Nickel | Atomic Absorption; Furnace Technique | 249.2 | | 304 | | |
| | Atomic Absorption; Direct Aspiration | 249.1 | | | | |
| | Inductively-Coupled Plasma | 200.7 | | 305 | | |
| | ICP Mass Spectrometry | 5 200.8 | | | | |
| Thallium | Atomic Absorption; Furnace Technique | 279.2 | | 304 | | |
| | Inductively-Coupled Plasma | 200.7 | | | | |
| | ICP Mass Spectrometry | 5 200.8 | | | | |
| Cyanide | Distillation, Titrimetric | 335.2 | D-2036-82A | 412C | I-3300-84 | |
| | Distillation, Automated, Spectrometric | 335.3 | D-2036-82A | 412D | | |
| Sulfate | Automated, Chloranilate | 375.1 | | 426D | | |
| | Gravimetric | 375.3 | D-516-82A | 426A,B | | 7 33.107 |
| | Turbidimetric | 375.4 | D-516-82B | 426C | | |
| | Ion Chromatography | 300.0 | D-4327-88 | 429 | | |

[1] "Methods of Chemical Analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268
[2] Annual Book of ASTM Standards, Vol. 11.01, 1988, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.
[3] "Standard Methods for the Examination of Water and Wastewater," 16th Edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1985.
[4] Techniques of Water Resources Investigation of the U.S. Geological Survey, Chapter A-1, "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," Book 5 (1979, Stock #024-001-03177-9). Available at Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.
[5] Method available from U.S. EPA's Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268.
[6] For approved analytical procedures for metals, the technique applicable to total metals must be used.
[7] "Official Methods of Analysis of the AOAC," 16th Edition, Association of Official Analytical Chemists, 1985.

Table 6 lists the analytical methods that EPA is proposing today to comply with the proposed monitoring requirements. EPA believes that the analytical methods listed in Table 6 are technically and economically available for inorganic monitoring, except that ICP/MS is not considered available because of high capital costs of the instrumentation (about $150 K per instrument) and the fact that it is not yet in general use. The analytical cost for the metals (antimony, beryllium, nickel and thallium) is estimated at about $20 to $30 dollars per sample and $10 to $30 per sample for cyanide and sulfate. EPA believes that these costs are affordable. (The actual analytical costs may vary with the laboratory, analytical technique selected, the total number of samples and other factors.) The number of laboratories that routinely participate in EPA's Water Supply and Water Pollution performance evaluation studies indicates that many laboratories have the capability to conduct analysis for the inorganics.

Below is a description of the proposed analytical techniques. For information on the precision and accuracy of these methods, EPA refers the readers to the references listed in Table 5. EPA requests public comments on the technical adequacy of these proposed analytical techniques.

TABLE 6: PROPOSED METHODOLOGY FOR INORGANIC CONTAMINANTS, METHOD DETECTION LIMITS (MDLS) AND PRACTICAL QUANTITATION LEVELS (PQLS)

| Contaminant | Method [1] | MDL (mg/l) | PQL (mg/l) |
|---|---|---|---|
| Antimony | Atomic Absorption; Furnance [2] | 0.001 | 0.01/0.005 [3] |
| | ICP-Mass Spectrometry | 0.00002 | |
| | Hydride-Atomic Absorption | 0.001 | |
| Beryllium | Atomic Absorption; Furnace | 0.0002 | 0.001 |
| | Inductively Coupled Plasma [3] | 0.0002 | |
| | ICP-Mass Spectrometry | 0.0001 | |
| Nickel | Atomic Absorption; Furnace | 0.001 | 0.050 |
| | Inductively Coupled Plasma [3] | 0.005 | |
| | ICP-Mass Spectrometry | 0.00003 | |
| Thallium | Atomic Absorption; Furnace [3] | 0.0002 | 0.002/0.001 [3] |
| | ICP-Mass Spectrometry | 0.00005 | |
| Cyanide | Distillation, Titrimetric | 0.02 | 0.200 |
| | Distillation, Automated, Spectrometric | 0.005 | |
| Sulfate | Automated, Chloranilate | 10 | 10.000 |
| | Gravimetric | 10 | |
| | Turbimetric | 1 | |
| | Ion Chromatography | 0.2 | |

[1] As explained in the text, ICP-MS is a new technique, not yet in wide use, with high capital costs and it is therefore not being used to estimate the PQLs for these contaminants.
[2] Using the 4X concentration step described in Appendix to Method 200.7.
[3] Two alternative PQLs are proposed for antimony and thallium based on "ten times the MDL" and "five times the MDL."

a. *Metals (Antimony, Beryllium, Thallium and Nickel)—Atomic Absorption Methods*—Metals in solution may be determined by atomic absorption spectroscopy. There are two techniques that can be used: direct aspiration, and the furnace technique. These techniques have been thoroughly discussed in 54 FR 22096 (May 22, 1989) and elsewhere.

Atomic absorption is applicable to the determination of antimony, beryllium, thallium and nickel. The specific requirements for determining these metals by atomic absorption techniques varies with the metal and the concentration to be determined. Even with preconcentration, direct aspiration does not provide adequate sensitivity for these contaminants. Furnace atomic absorption is proposed for these metals. When the furnace atomic absorption technique is used, it may be necessary to utilize a sample concentration technique prior to analysis to achieve the low levels of analytical detection that are required for drinking water samples.

*Inductively Coupled Plasma (ICP)—Atomic Emission Spectrometric Method*—This method (known as "EPA Method 200.7") has been thoroughly discussed in 54 FR 22096 (May 22, 1989). While ICP does not have the sensitivity of furnace atomic absorption, an advantage of this method is the ability to perform simultaneous multi-element analysis. In order to meet the proposed MCLs for some of the metals it may be necessary to use sample preconcentration techniques. EPA believes there have been sufficient new developments in sample aspirators used on ICP instruments, including ultrasonic nebulizers, and ion chromatographic autosamplers, to extend this technique to the metals in today's rule as well as other metals that EPA will regulate under the SDWA.

*ICP–Mass Spectrometric Method*—This method (known as "EPA Method 200.8") is a relatively new technique, which allows metals to be determined by mass spectrometry. While the acquisition cost is quite high (>$100K), the ability of this equipment to measure metals at low concentrations by simultaneous analysis and issuance of a single computerized report makes this a feasible alternative for metal analysis. This technique is similar to ICP-spectrophotometric methods in that liquid samples are nebulized to an aerosol into a plasma torch.

Rather than measuring the emitted light, the purpose of the plasma

excitation is to provide a stable ionization source to provide metal ions with a single mass-charge ratio (m/z) to be extracted into the mass spectrometer. ICP–MS is capable of detecting all the metals in this proposal at sub-microgram levels. Public comments are requested on whether ICP–MS is appropriate for the determination of antimony, beryllium, nickel and thallium, especially in light of the limited availability of this technology to laboratories.

b. *Anions (Cyanide and Sulfate).* The two anions in this notice, cyanide and sulfate, have a long history as water quality parameters. There is a large body of performance data available from water pollution studies. The analytical methods available have MDLs and PQLs lower than the proposed MCLGs for cyanide and sulfate.

*Cyanide.* Cyanide procedures include both titrimetric and colorimetric procedures. Cyanide is one of the traditional water quality parameters, with a large body of water pollution performance evaluation (PE) data, and with adequate laboratory capacity.

*Sulfate.—Traditional Methods*—The three traditional procedures take advantage of the formation of insoluble barium sulfate. In the case of the automated colorimetric chloranilate procedure, barium chloranilate reacts with the sulfate releasing the colored chloranilate. The gravimetric and turbimetric procedures involve the formation of barium sulfate.

*Ion Chromatography*—Sulfate can be measured simultaneously with nitrate and other anions. The ion chromatography method is discussed thoroughly in 54 FR 22097 (May 22, 1989). The corresponding EPA method based on the ion chromatography technique is Method 300.

2. Synthetic Organic Chemicals

While the volatile organic chemicals are synthetic organic chemicals, they have been referred to as the "VOCs" in other notices, whereas the non-volatile pesticides and industrial organic chemicals have been referred to as the synthetic organic chemicals, or "SOCs." Many of the VOCs and SOCs in today's notice have already been included as analytes in existing analytical methods for other drinking water contaminants, as noted below.

a. *Volatile Organic Chemicals (VOCs).* The EPA has developed five analytical methods for VOCs that it has determined are feasible (SDWA, Section 1401(1)(C)) for monitoring compliance with the MCLs for three VOCs in this notice (dichloromethane, 1,2,4-trichlorobenzene and 1,1,2-trichloroethane). The factors considered in feasibility were delineated in 52 FR 25690 (July 8, 1987). The five methods listed below were approved for the determination of eight regulated VOCs and certain unregulated VOCs (52 FR 25690, July 8, 1987). EPA refers readers to that rule for information on these methods, including methods performance, the availability of laboratories, and analytical costs. EPA has determined that the analytical methods listed below are technically sound and economically available for routine use. The analytical costs associated with the determination of VOCs in this rule will be minimal since the other regulated VOCs are being monitored for compliance purposes using the same analytical techniques. The methods are specified below:

(1) U.S. EPA Method 502.1, "Volatile Halogenated Organic Compounds in Water by Purge and Trap Gas Chromatography."

(2) U.S. EPA Method 502.2, "Volatile Organic Compounds in Water by Purge and Trap Capillary Gas Chromatography with Photoionization and Electrolytic Conductors Detectors in Series."

(3) U.S. EPA Method 503.1, "Volatile Aromatic and Unsaturated Organic Compounds in Water by Purge and Trap Gas Chromatography."

(4) U.S. EPA Method 524.1, "Volatile Organic Compounds in Water by Purge and Trap Gas Chromatography/Mass Spectroscopy."

(5) U.S. EPA Method 524.2, "Volatile Organic Compounds in Water by Purge and Trap Capillary Column Gas Chromatography/Mass Spectroscopy."

While EPA has found all the methods listed above to be satisfactory, users should be aware that methods 502.1, 503.1, and 524.1 are all packed column methods. Even with the use of a confirmatory column, there may be coelution when a large number of VOCs are present in the sample. While method 524.1 may be able to separate VOCs by their spectra, laboratories should demonstrate in initial monitoring that coelution is not a problem.

Dichloromethane is one of the VOCs included in today's notice. Since dichloromethane is frequently used as an extractant of semi-volatile contaminants in environmental laboratories, all the methods for VOCs contain a cautionary statement addressing potential contamination in the laboratory. Users must demonstrate low background levels of dichloromethane contamination in the blanks.

b. *Pesticides.* EPA has developed the following ten analytical methods for pesticides. EPA is proposing the use of these analytical methods to analyze for the pesticides in this notice:

(1) U.S. EPA Method 505, "Analysis of Organohalide Pesticides and Aroclors in Drinking Water by Microestraction and Gas Chromatography."

(2) U.S. EPA Method 507, "Determination of Nitrogen- and Phosphorus-containing Pesticides in Water by Gas Chromatography with a Nitrogen-Phosphorus Detector."

(3) U.S. EPA Method 508, "Determination of Chlorinated Pesticides in Water by Gas Chromatography with an Electron Capture Detector."

(4) U.S. EPA Method 515.1, "Determination of Chlorinated Acids in Water by Gas Chromatography with an Electron Capture Detector."

(5) U.S. EPA Method 531.1, "Measurement of N-Methyl Carbamoyloximes and N-Methyl Carbamates in Drinking Water by Direct Aqueous Injection HPLC with Post-Column Derivatization."

(6) U.S. EPA Method 549, "Determination of Diquat and Paraquat in Drinking Waters by High Performance Liquid Chromatography with Ultraviolet Detection."

(7) U.S. EPA Method 548, "Determination of Endothall in Aqueous Samples."

(8) U.S. EPA Method 547, "Analysis of Glyphosate in Drinking Water by Direct Aqueous Injection HPLC with Post-Column Derivatization."

(9) U.S. EPA Method 513, "Determination of 2,3,7,8–TCDD in Drinking Water by Gas Chromatography/High Resolution Mass Spectrometry."

(10) U.S. EPA Method 525, "Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column GC/Mass Spectrometry."

The sampling procedures for the pesticides are specified in each method. These procedures in some cases involve extensive cleanup steps and derivatizations which may require special care and attention to laboratory safety.

Method 505 measures endrin, hexachlorobenzene, hexachlorocyclopentadiene, and simazine, although Method 507 is the preferred method for simazine. Method 508 also measures endrin, hexachlorobenzene, and hexachlorocyclopentadiene. These methods have been previously discussed in 54 FR 22098 (May 22, 1989). The single

laboratory accuracy and precision has been determined in Method 505 by analysis of replicate samples of reagent, ground and tap water matrices spiked at low microgram to submicrogram levels. The accuracy ranged from 67 to 119 percent and the precision ranged from 4.4 to 31 percent for the above listed analytes. Method 507 gives an 86 to 103 percent recovery for simazine and a relative standard deviation of 5 to 14 percent. Method 508 lists recoveries of 68 to 104 percent and relative standard deviation of 7 to 22 percent for endrin and hexachlorobenzene.

Method 515.1 has been previously discussed in 54 FR 22099 (May 22, 1989). This method can be used to determine the acid herbicides: dalapon, dinoseb, and picloram. The single laboratory recoveries for these analytes range from 42 to 128 percent, while the relative standard deviations range from 15 to 24 percent. This method requires derivatization of the acidic materials to neutral methyl esters. Previous methods allowed analysts to use boron-trifluoride/methanol as the methylating reagent. Some of the acidic herbicides the Agency is proposing to regulate require the use of the diazomethane procedure which is specified in Method 515.1. EPA is investigating the use of a safer substitute for diazomethane which will produce equivalent data. In the meantime, analysts using diazomethane should be aware this chemical is a carcinogen. Therefore, extreme care must be taken in handling this material. EPA laboratories which have been using this procedure for many years indicate that as long as the microgeneration procedure listed in the method is followed, toxic and explosive hazards are minimized.

Method 531.1 is a high pressure liquid chromatography (HPLC) method that measures oxamyl in addition to several other pesticides proposed for regulation in 54 FR 22062. The method was described in that notice and it is only referenced here. Method 531.1 gives a 97 to 102 percent recovery for oxamyl and a relative standard deviation of 3 to 10 percent.

Method 549 is a new method being proposed in this notice for the analysis of diquat. In this method, a measured volume of sample adjusted to a pH of 10.5 is concentrated by solid phase extraction. The analysis is by ion-pair high pressure liquid chromatography with an ultraviolet detector. The single laboratory recovery and precision data for diquat was 86 to 102 percent and 4 to 13 percent, respectively.

Method 548 is a new method being proposed in this notice for the analysis of endothall. In this procedure, endothall (a polar molecule) is derivatized in aqueous solution. The reagent used, pentafluorophenylhydrazine, produces a high response to the electron-capture detector commonly used in pesticide analysis. While precision was good, 4 to 10 percent, derivatization efficiencies ran from 53 to 103 percent and resulted in recoveries from 60 to 69 percent.

Method 547 is a new method being proposed in this notice for the analysis of glyphosate. In this method, dechlorination of the water sample is quite important, as glyphosate decomposes rapidly in chlorinated water. After dechlorination, the water sample is injected directly onto a high pressure liquid chromatograph. Glyphosate forms a sensitive chromophore with o-phthalaldehyde, which allows a small volume of sample (200 µl) to be detected by UV-fluorescence. The accuracy and precision of glyphosate measurements with this procedure were 96 to 108 percent and 1 to 12 percent, respectively.

Method 525 is another available technique which involves capillary column gas chromatography/mass spectrometry and utilizes liquid-solid extraction for sample preparation. It may be used for the determination of some compounds in today's proposal. While this method is not sensitive enough for all compounds of interest, it is a useful confirmation technique for some of these compounds, in the event of high enough levels.

c. *Other Synthetic Organic Chemicals (SOCs).* This section refers to other SOCs included in this notice not covered above (i.e., adipates, phthalates, PAHs and 2,3,7,8–TCDD). A number of procedures are available for these compounds which utilize equipment already in use for other drinking water analytes.

Method 513 is a new method that may be used to determine 2,3,7,8–TCDD (dioxin) levels in drinking water. It involves liquid-liquid extraction followed by gas chromatography and high resolution mass spectrometry. *Only those laboratories which have the appropriate containment facilities and equipment should conduct this type of analysis.* Even though historically it has not always been necessary to use cleanup techniques on drinking water, sample cleanup is recommended prior to dioxin analysis. The following steps are absolutely critical to producing adequate data when using this method: (1) use of the labeled surrogate and internal standard, (2) use of the specified GC column, (3) demonstration that the resolving power of the spectrometer meets the requirements of the method, and (4) tuning of the spectrometer to the correct ratios for the unlabeled and labeled ions used in quantitation. Precision and accuracy data are not given, as the method specifies a vigorous QC protocol that must be met before the analysis can be attempted.

Although phthalates and adipates can be measured using electron capture gas chromatography (EC/GC), di(ethylhexyl) adipate has poor sensitivity by this technique. Both compound classes can also be measured simultaneously by capillary column gas chromatography utilizing a photoionization detector (PID/GC) or gas chromatography-mass spectrometry (GC/MS). EPA Method 506 is a PID/GC procedure which takes advantage of the extreme ultraviolet sensitivity of di(ethylhexyl)adipate and the phthalates. In this procedure a one-liter sample is extracted with dichloromethane, and reduced to 1 ml. Analysis is by capillary column/gas chromatography equipped with a photo-ionization detector (CC/PID/GC). The single laboratory accuracy and precision in reagent water for the phthalates and the adipates in this method ranged from 73 to 130% and from 12 to 27%, respectively.

Method 525 can also be used as an analytical technique for the determination of some adipates and phthalates, or for confirmation purposes at higher concentrations. The accuracy and precision for the measurement of phthalates and adipates with this method range from 80 to 195 percent and from 11 to 52 percent, respectively.

Phthalates are ubiquitous in the environment. Extreme care must be taken in the laboratory to avoid contamination. Users must demonstrate low background levels of phthalates in the blanks.

*Polynuclear Aromatic Hydrocarbons*—PAHs are multi-ring aromatics occurring in petroleum, coal tar, combustion residues, coatings in pipes, etc. They are ubiquitous in the industrialized parts of the United States. The ring structures of the PAHs give them extremely sensitive detection levels by a variety of chromatographic techniques. PAHs can be determined by high pressure liquid chromatography (HPLC), PID/GC, and GC/MS procedures. These compounds can be extracted from drinking water by both liquid-liquid and solid phase techniques.

EPA Methods 550 and 550.1 are HPLC methods similar to EPA Method 610. However, Methods 550 and 550.1 are an improvement over Method 610, in that the chromatographic conditions utilized are able to resolve benzo(b)fluoranthene and benzo(k)fluoranthene, both being

considered for regulation in today's proposal. While both Methods 550 and 550.1 use HPLC with ultraviolet (UV) and fluorescence detectors, Method 550 is the classic liquid-liquid extraction (LLE) of a one-liter sample with dichloromethane. A solvent exchange with acetonitrile is performed to prepare the final extract. Method 550.1 is a liquid-solid extraction procedure (SPE) in which one liter of sample is run through a reverse phase C–18 cartridge, that has been previously cleaned. The PAHs are eluted with a small volume of dichloromethane, and the solvent is exchanged with acetonitrile for the final extract. Single lab precision and accuracy data was obtained for both reagent and tap water. Comparable data was obtained for both methods. For reagent water accuracy and precision ranged from 70–113% and 6–20%, respectively, at a spiking level that ranged from 0.125 to 10 μg/l. At lower spiking levels ranging from 0.025 to 2 μg/l, the precision and accuracy ranges were much wider. Single lab precision and accuracy data for PAHs spiked into tap water at the 0.125 to 10 μg/l spiking level gave better ranges except for benzo(a)pyrene which performed poorly for both methods at a level of 0.05 μg/l.

EPA Method 525 may also be used to determine PAHs in drinking water at low concentration levels.

3. Method Detection Limits and Practical Quantitation Limits

Generally, EPA defines the method detection limit (MDL) as the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the true value is greater than zero. The practical quantitation level (PQL) is the lowest concentration that can be reliably measured within specified limits of precision and accuracy during routine laboratory operating conditions. Differences between the MDLs and PQLs are expected, and the PQL is generally 5 to 10 times the MDL in relatively clean matrices such as finished drinking water. [See 52 FR 25699 (July 8, 1987) and 50 FR 46906 (November 13, 1985) for a detailed discussion on MDLs and PQLs.]

The PQL may be determined through interlaboratory studies, such as the performance evaluations (PE) studies. However, if data are not available from interlaboratory studies, the PQLs may be estimated based upon the MDL, by setting the PQL at a higher concentration than the MDL. In such cases, EPA believes that a PQL set at 10 times the MDL achieved by good laboratories is generally a fair expectation for routine operation of most qualified State and commercial laboratories. The use of "5 times the MDL" instead of "10 times the MDL" may be recommended when other considerations suggest the PQL should be lower (e.g., see discussion on the PQL for vinyl chloride at 52 FR 25700, July 8, 1987).

As noted previously, EPA evaluates the PQL as part of its determination of what level is as close to the MCLG as feasible. Consideration of the PQL is especially important for those contaminants for which EPA is proposing MCLGs at zero. Since the zero level cannot be measured, EPA evaluates the performance of available analytical techniques to ascertain the level, greater than zero, which is measured within acceptable limits of precision and accuracy. Therefore, for the carcinogenic contaminants, where the PQLs are, by definition, greater than the proposed MCLGs, the proposed MCLs are all equal to or greater than their PQLs. Analytical techniques may also be a limiting factor in setting MCLs for some noncarcinogenic contaminants if the PQLs are above the proposed MCLGs.

EPA has estimated MDLs and PQLs for the proposed analytical techniques and these are summarized in Tables 6 and 7. The derivation of MDLs has been thoroughly discussed in appendix B to 40 CFR part 136. Readers are referred to that notice for information on the procedure used to determine MDLs. EPA plans to collect additional data from performance evaluation (PE) studies for contaminants in today's notice to verify whether the proposed PQLs for these contaminants are reasonable.

TABLE 7.—METHOD DETECTION LIMITS (MDLs) AND PRACTICAL QUANTITATION LEVELS (PQLs) FOR ORGANIC CONTAMINANTS

| Contaminant | Methodology | MDL (mg/l) | PQL mg/l) |
|---|---|---|---|
| Benzo(a)pyrene | High Pressure Liquid Chromatography | 0.00002 | 0.0002 |
| | Gas Chromatographic/Mass Spectrometry | .00004 | |
| Benzo(a)anthracene [3] | High Pressure Liquid Chromatography | .00001 | .0001 |
| | Gas Chromatographic/Mass Spectrometry | .00004 | |
| Benzo(b)fluoranthene [3] | High Pressure Liquid Chromatography | .00002 | .0002 |
| | Gas Chromatographic/Mass Spectrometry | .00002 | |
| Benzo(k)fluoranthene [3] | High Pressure Liquid Chromatography | .00002 | .0002 |
| | Gas Chromatographic/Mass Spectrometry | .0002 | |
| Butylbenzyl phthalate [3] | Photoionization/Gas Chromatography | .0002 | .002 |
| | Gas Chromatographic/Mass Spectrometry | .0003 | |
| Chrysene [3] | High Pressure Liquid Chromatography | .00002 | .0002 |
| | Gas Chromatographic/Mass Spectrometry | .00004 | |
| Dalapon | Electron-Capture/Gas Chromatography | .001 | .01 |
| Dibenz(a,h)anthracene [3] | High Pressure Liquid Chromatography | .00003 | .0003 |
| | Gas Chromatographic/Mass Spectrometry | .0001 | |
| Dichloromethane [4] | Purge and Trap Gas Chromatography | .0002 | .005 |
| | Purge and Trap Gas Chromatographic/Mass Spectrometry | .0009 | |
| Di(ethylhexyl)adipate | Photo-Ionization/Gas Chromatography | .0005 | .005 |
| | Gas Chromatographic/Mass Spectrometry | .0006 | |
| Di(ethylhexyl)phthalate | Photoionization/Gas Chromatography | .0004 | .004 |
| | Gas Chromatographic/Mass Spectrometry | .0006 | |
| Dinoseb | Electron-Capture/Gas Chromatography | .0002 | .002 |
| Diquat | High Pressure Liquid Chromatography | .0004 | .004 |
| Endothall | Derivatization-Electron-Capture/Gas Chromatography | .009 | .09 |
| Endrin | Electron-Capture/Gas Chromatography | .00001 | .0001 |
| Glyphosate | High Pressure Liquid Chromatography Post Column Derivatization | .006 | .06 |
| Hexachlorobenzene | Electron-Capture/Gas Chromatography | .0001 | .001 |
| | Gas Chromatographic/Mass Spectrometry | .0001 | |
| Hexachlorocyclopentadiene | Electron-Capture/Gas Chromatography | .0001 | .001 |
| | Gas Chromatographic/Mass Spectrometry | .00003 | |

TABLE 7.—METHOD DETECTION LIMITS (MDLs) AND PRACTICAL QUANTITATION LEVELS (PQLs) FOR ORGANIC CONTAMINANTS—Continued

| Contaminant | Methodology | MDL (mg/l) | PQL mg/l) |
|---|---|---|---|
| Indenopyrene [3] | High Pressure Liquid Chromatography | .00004 | .0004 |
| | Gas Chromatographic/Mass Spectrometry | .0001 | |
| Oxamyl (Vydate) | High Pressure Liquid Chromatography/Post Column Derivatization | .002 | .02 |
| Picloram | Electron-Capture/Gas Chromatography | .0001 | .001 |
| Simazine | Nitrogen-Phosphorus Detector/Gas Chromatography | .00007 | .0007 |
| 2,3,7,8-TCDD (Dioxin) | High Resolution Gas Chromatographic/Mass Spectrometry | .00000001 | .00000005 |
| 1,2,4-Trichlorobenzene [4] | Purge and Trap Gas Chromatography | .0003 | .005 |
| | Purge and Trap Gas Chromatographic/Mass Spectrometry | .002 | |
| 1,1,2-Trichloroethane [4] | Purge and Trap Gas Chromatography | .0001 | .005 |
| | Purge and Trap Gas Chromatographic/Mass Spectrometry | .0001 | .005 |

[1] Gas chromatography/mass spectrometry is not used to estimate PQLs.
[2] EPA proposes as a regulatory option to regulate butylbenzylphthalate in addition to di(ethylexyl)phthalate.
[3] EPA proposes as a regulatory option to regulate six polynuclear aromatic hydrocarbons (PAHs) in addition to benzo(a)pyrene. These PAHs are: benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene and indenopyrene.
[4] This contaminant is a volatile organic chemical (VOC). See text for information on how EPA estimated the PQL.

a. *Inorganics.* The PQLs for inorganics are determined based upon the MDLs and the results from performance evaluation data. No PE data are available for three of the inorganics in this notice (antimony, beryllium and thallium) at the proposed MCLGs. Therefore, the PQL for these contaminants has been estimated from the respective MDLs by using "ten times the MDL" or "five times the MDL" to set the PQL.

As noted in Table 6, the MDL for a given contaminant varies with the analytical method. Table 6 indicates that ICP–MS has lower detection limits than atomic absorption or inductively coupled plasma. However, ICP–MS is a newly developed technique requiring a large initial capital outlay to acquire the equipment and specialized training to carry out the analysis. Therefore, the Agency does not believe this technique is generally available to most analytical laboratories. EPA thus did not consider the MDLs reported for this technique in setting the PQLs for antimony, beryllium and thallium. Instead, EPA selected the lowest reported MDL for a proposed method other than ICP–MS to estimate the PQL for each contaminant. The Agency believes that the resulting PQL will be achievable by most good laboratories using generally available techniques.

For beryllium, the PQL is being proposed at a level of five times the MDL because the resulting PQL of 0.001 mg/l approximates the $10^{-4}$ risk level for carcinogenic effects, and a PQL set at 10 times the MDL would exceed the $10^{-4}$ risk level. EPA believes that it is appropriate to accept less precision where the risk posed by a contaminant at a level of ten times the MDL is greater than the maximum individual lifetime cancer risk of $1 \times 10^{-4}$. Public comments are requested on the proposed PQL for beryllium.

For antimony and thallium, EPA is considering two options for setting the PQLs and is proposing both options today for public comment. The first option is to set PQLs at 0.01 mg/l and 0.002 mg/l, respectively, using the "ten times the MDL" approach. The second option is to set PQLs of 0.005 mg/l and 0.001 mg/l using the "five times the MDL" approach. The Agency requests public comment on whether the second option should be adopted for antimony and thallium since the resulting MCL would be closer to the target health goals (i.e., MCLGs).

The PQLs for the remaining inorganics (cyanide, nickel and sulfate) were determined using the MDLs and EPA and State laboratory data from Water Pollution (WP) PE studies #12–16, using the procedure described in 54 FR 22100. Readers are referred to that notice for information on the procedure used to determine the PQLs for these inorganic contaminants. Using the procedure described in that notice, the PQLs for cyanide, nickel and sulfate were set at a concentration where at least 75 percent of EPA and State laboratories are within the specified acceptance range. The resulting PQLs are shown in Table 6.

Public comments are requested on the approach used to determine the PQLs for inorganic contaminants and on the proposed PQLs for these contaminants. In particular, public comments are requested on the use of "five times the MDL" to set the PQL for beryllium, and on the alternative options proposed today of using five *or* ten times the MDL to set the PQL for antimony and thallium. Also, EPA requests information on any new developments in methodology for these contaminants that may lower the MDLs achievable by good laboratories, resulting in lower PQLs.

b. *Synthetic Organic Chemicals.* This proposal contains EPA estimates of MDLs and PQLs for volatile synthetic organic compounds (VOCs) and other SOCs. The VOCs and other SOCs are discussed separately because the approach to estimate MDLs and PQLs for each is different. The different approaches result from the type and amount of available performance data.

*Volatile Organic Compounds*—The VOCs were included in recent Water Supply performance evaluation studies. In addition, other VOC performance data are also available. EPA has evaluated the available data to estimate the VOCs MDLs. Typical MDLs for the VOCs are in the range of 0.0002 mg/l to 0.0005 mg/l (see 54 FR 22102). Based on the available data (e.g., Water Supply performance evaluation data, and method detection limits), EPA has derived PQLs of 0.005 mg/l for the VOCs as listed in Table 7. EPA believes that these PQLs are set at a level where adequate performance is expected for most laboratories. EPA considered the PQLs to determine the proposed VOC MCLs. As noted previously, the PQLs are critical to determine MCLs for carcinogenic contaminants with MCLGs of zero, such as dichloromethane.

EPA proposes PQLs of 0.005 mg/l (or 5 μg/l) for the three VOCs in this notice (dichloromethane, 1,1,2-trichloroethane and 1,2,4-trichlorobenzene). These are the same as the PQLs proposed by EPA for other VOCs (see 54 FR 22103). These PQLs are consistent with reported MDLs and recent Water Supply performance data.

Public comments are requested on the proposed PQLs for the VOCs.

*Other Synthetic Organic Compounds*—The proposed analytical methods to determine concentrations of other (i.e., non-volatile) SOCs in this notice were developed recently. Therefore, information on the performance of these methods is limited.

Information currently available to estimate PQLs for these contaminants consists primarily of the single laboratory-calculated MDLs using the procedure described in 40 CFR part 136, appendix B. Table 7 summarizes the reported MDLs for the SOCs. Because performance evaluation data are not currently available, the PQLs for the non-volatile SOCs in this proposal are estimated as ten times the MDLs. This approach to determining PQLs when data is not available is supported by previous studies which indicate that PQLs are generally ten times the MDL (see 54 FR 22103). EPA intends to verify actual laboratory performance at the PQL level in future multilaboratory validation studies and performance evaluation studies.

Although gas chromatography/mass spectrometry (GC/MS) is being proposed in today's notice as an existing analytical technique for some of the SOCs listed in Table 7, EPA did not consider the MDLs reported for this technique to estimate the PQLs because GC/MS methodology is not available to some analytical laboratories due to the large initial capital investment for equipment and it requires specialized training to carry out the analyses. In addition, detection limits with GC/MS methods are generally higher than for other gas chromatographic techniques. Therefore, EPA estimated the PQL as ten times the MDL reported for the non-GC/MS method. The Agency believes that the resulting PQL will be achievable by most good laboratories using generally available techniques.

For 2,3,7,8-TCDD, EPA proposes to set the PQL at five times the MDL. Lower contaminant levels are associated with greater difficulty in measurement and consequently less precision and accuracy. However, EPA believes it is appropriate to accept less precision if the risk posed by a carcinogenic contaminant at a level of ten times the MDL is greater than the $1 \times 10^{-4}$ maximum individual lifetime risk that is generally considered by the Agency to be acceptable. For 2,3,7,8-TCDD, a level of $1 \times 10^{-7}$ mg/l (10 times the MDL) is associated with an increased cancer risk of $5 \times 10^{-4}$. A level of $5 \times 10^{-8}$ mg/l (5 times the MDL) would be associated with a lower risk approximately equal to $2.5 \times 10^{-4}$.

EPA request comments on whether it is feasible to set the PQL for 2,3,7,8-TCDD at a level of 5 times the MDL or whether a different level would be more appropriate. Public comments are also requested on the proposed PQLs for the other SOCs.

*B. Treatment Technologies, Costs and Selection of the Proposed MCLs*

Section 1412(b)(6) of the Act states that each national primary drinking water regulation which establishes an MCL shall list the technology, treatment techniques, and other means which the Administrator finds to be feasible for meeting the MCL. In order to fulfill the requirements of section 1412(b)(6), EPA has identified the best available technologies (BAT) for each chemical listed in this proposal. BAT is determined by identifying available technologies which reduce contaminant concentration levels and by evaluating the costs and commercial availability of the technologies. Technologies are designated BAT based upon the following general criteria: high removal efficiency, general geographic applicability, compatibility with other water treatment processes, and the ability to achieve compliance at a reasonable cost. To determine BAT, EPA considers whether such technologies are reasonably affordable by regional and large metropolitan public water systems [H.R. Rep. No. 93–1185, p. 18 (1974)].

Below is a discussion of the technologies that the Agency is proposing as BAT under Section 1412 of the SDWA for the IOCs and SOCs. The proposed BATs were determined on the basis of an evaluation of removal efficiencies of available technologies for each of the contaminants, as well as the costs of installing BAT for large systems. The following discussion also indicates, for each contaminant, the proposed MCL and presents the Agency's rationale for selecting the proposed MCLs. In determining the proposed MCLs based on these technological and economic feasibility considerations, EPA also sought to ensure that the SDWA goal of providing safe drinking water is met.

1. Inorganic Chemicals

Table 8 summarizes the treatment technologies which EPA evaluated and those it is proposing as BAT for antimony, beryllium, cyanide, nickel, sulfate and thallium. Table 9 lists the efficiencies of removal based on available treatment data for each technology. Examination of these technologies indicates that, in general, each can reduce the contaminant levels from the maximum expected occurrence levels to below the proposed MCLGs, except for beryllium and antimony. Several of the treatment studies for antimony, beryllium and thallium were limited to bench-scale studies and further research will be conducted to verify the effectiveness of these BATs.

TABLE 8. PROPOSED BAT FOR IOCs

| IOC | BAT* |
|---|---|
| Antimony | C/F; RO. |
| Beryllium | AA; IE; RO; LS; C/F. |
| Cyanide | IE; RO; CH. |
| Nickel | IE; RO; LS. |
| Sulfate | RO; IE. |
| Thallium | AA; IE. |

*Best Available Technology (BAT):

AA=Activated Alumina
IE=Ion Exchange
LS=Lime Softening
RO=Reverse Osmosis
C/F=Coagulation/Filtration
CH=Chlorine Oxidation

TABLE 9. BAT REMOVAL EFFICIENCIES

| Inorganic contaminant | Best available technologies | | | | | |
|---|---|---|---|---|---|---|
| | Activated alumina | Ion exchange | Reverse osmosis | Lime softening | Coagulation filtration | Chlorine oxidation |
| Antimony | | | 69–77 | | 75–80 | |
| Beryllium | 95 | 80–95 | 96–99 | <95 | 90 | |
| Cyanide | | <90 | 85–99 | | | <70 |
| Nickel | | <70 | <90 | <90 | | |
| Sulfate | | <75 | 86–97 | | | |
| Thallium | <95 | <90 | | | | |

Beryllium has a proposed MCLG of zero (no technology will remove 100% of beryllium). For this inorganic contaminant, BATs are capable of reducing contaminant levels to below the PQL.

The available BATs for antimony will typically remove 75 to 80% of that compound. Since the maximum reported occurrence level for this inorganic contaminant is 0.045 mg/l, these technologies may not remove antimony to below the proposed MCLG of 0.003 mg/l. However, BAT is not the limiting factor in setting an MCL for antimony since the PQL for antimony is estimated at 0.01 mg/l, as discussed in Section IV–A above. Systems with antimony that are not able to meet the proposed MCL after they have applied BAT could apply for a variance (unless variances are not permitted under a State-authorized program).

Estimated costs for the removal of specific contaminants using the proposed BATs are summarized in Table 10. These costs are representative of typical system costs using BAT. The general assumptions used to develop the treatment costs include: Capital costs amortized over 20 years at a 10 percent interest rate; engineering fees; contractor overhead and profit; late 1986 power, fuel, labor and chemical costs.

TABLE 10. COST OF CONTAMINANT REMOVAL BY BAT

[$/Household/Year]*

| Contaminant/BAT | Population served** | | |
|---|---|---|---|
| | 500–1,000 | 3,301–10,000 | 1,000.000 |
| Antimony: | | | |
| Reverse Osmosis | 460 | 330 | 160 |
| Coagulation/Filtration | 330 | 190 | 39 |
| Beryllium: | | | |
| Activated Alumina | 160 | 65 | 42 |
| Ion Exchange | 130 | 55 | 38 |
| Reverse Osmosis | 460 | 330 | 160 |
| Lime Softening | ..... | 230 | 50 |
| Coagulation/Filtration | 330 | 190 | 39 |
| Cyanide: | | | |
| Ion Exchange | 120 | 58 | 29 |
| Reverse Osmosis | 460 | 330 | 160 |
| Chlorine Oxidation | 20 | 5 | 1 |
| Nickel: | | | |
| Ion Exchange | 130 | 55 | 38 |
| Reverse Osmosis | 460 | 330 | 160 |
| Lime Softening | ..... | 230 | 44 |
| Sulfate: | | | |
| Reverse Osmosis | 350 | 220 | 100 |
| Ion Exchange | 290 | 190 | 140 |
| Thallium: | | | |
| Activated Alumina | 160 | 65 | 44 |
| Ion Exchange | 130 | 55 | 38 |

*Costs in $/household/year. Production in ¢/1,000 gallons is equal to dollars per household per year (i.e., 35¢/1,000 gallons=$35/household per year).
**See the appropriate Technologies and Costs (Tcument for cost information on other systems sizes).

Costs may vary somewhat from those shown depending on local conditions and do not include waste disposal costs. The disposal of waste by-products generated by the treatment processes increases overall treatment costs for all systems. Waste disposal does not significantly increase the total treatment costs for large systems which are the systems used to identify BAT and economical disposal technologies. Nevertheless, waste disposal costs may be significant for small systems. (See Table 22 in 54 FR 22109, and accompanying discussion, for a summary of lowest cost waste disposal alternatives for various system sizes as shown by population ranges.) Costs of treatment will be less than shown in Table 10 if contaminant concentration levels encountered in the raw water are lower than those used for the calculations. Conversely, costs of treatment may be higher if additional system-specific treatment or storage requirements are needed.

One of the BATs for the IOCs is reverse osmosis (RO). This technology utilizes semi-permeable membranes to remove a high percentage of almost all inorganic ions. The effectiveness of RO is adversely affected by the presence of turbidity, iron, manganese, silica, or scale-producing constituents in the source water. If pretreatment is not already in place to remove these constituents, the additional cost to install technologies (e.g., pH adjustment, filtration, or scale-prevention additives) may be a factor, and the cost generated by the model includes the cost of a scale inhibitor. On the other hand, in situations where high dissolved solids and/or several contaminants may have to be removed simultaneously, the RO process may offer an especially desirable and cost-effective approach to their removal.

The following sections discuss the BAT(s) which EPA is proposing for each of the IOCs, as well as the Agency's rationale for deriving the proposed MCLs. The Agency selected these technologies from among all the technologies available because the Agency believes that these are the technologies that fulfill the requirements of section 1412 of the SDWA for BAT.

*Antimony*

1. *Technologies and Costs.* The Agency proposes that reverse osmosis and coagulation/filtration fulfill the SDWA requirements as best available technologies to remove antimony.

*Reverse Osmosis.* This technology is considered BAT for antimony because it has been demonstrated to be effective in removing antimony at feasible costs. Laboratory tests indicate that reverse osmosis is capable of removing between 69 and 77 percent of the antimony from drinking water. Reverse osmosis has

been used on a full scale basis for the reduction of contaminants other than antimony. Estimated costs for reducing antimony by reverse osmosis range from $4.60/1,000 gallons for systems serving between 500 and 1,000 persons to $1.60/1,000 gallons for systems serving more than 1,000,000 people.

*Coagulation/Filtration.* Laboratory studies indicate that conventional coagulation/filtration using ferric sulfate as a coagulant can achieve between 75 and 92 percent removal of the antimony from drinking water. Coagulation/filtration has been used on a full scale basis for the reduction of contaminants other than antimony in drinking water. Estimated costs of reducing antimony levels by use of conventional coagulation/filtration techniques range from $3.30/1,000 gallons for systems serving between 500 and 1,000 persons to $0.39/1,000 gallons for systems serving more than 1,000,000 persons.

2. *Proposed MCL for Antimony.* All of the technologies have demonstrated high antimony removal efficiencies, are currently available, have been installed in public water supplies and are compatible with other water treatment processes in different regions of the U.S. Based on the cost data summarized above, EPA believes that the costs of these technologies to large systems are reasonable. The proposed MCLG for antimony is 0.003 mg/l. The PQL for antimony is proposed alternatively at 0.01 mg/l or 0.005 mg/l (ten or five times the MDL). The maximum occurrence level is 0.045 mg/l in drinking water. In the NIRS survey, approximately 0.3 percent of the groundwater systems had positives for antimony. A positive was a concentration at or above 0.009 mg/l. The concentrations for all of these samples were within the range of 0.041 to 0.045 mg/l. The technologies listed above cannot remove antimony from these occurrence levels to below the MCLG; however, EPA is proposing an MCL of 0.01 mg/l for antimony based on the proposed PQL. Alternatively, the MCL would be set at 0.005 mg/l if the PQL is set at that level. Those systems that cannot meet the MCL after they have applied BAT would be eligible for a variance if they meet the statutory criteria (unless variances are not permitted under a State-authorized program). Based on the occurrence data, it is unlikely that a large number of systems would be unable to meet the proposed MCL.

*Beryllium*

1. *Technologies and Costs.* The Agency proposes that activated alumina, ion exchange, reverse osmosis, lime softening and coagulation/filtration fulfill the SDWA requirements as best available technologies to remove beryllium.

*Activated Alumina.* Activated alumina removes beryllium from waters by adsorption. Laboratory studies have indicated that activated alumina can remove greater than 95 percent of the beryllium from water. The capacity for beryllium adsorption by activated alumina is affected by the presence of anions in the source water such as fluoride (the regeneration frequency of the alumina bed decreases with the presence of fluoride). Estimated costs for activated alumina to reduce beryllium concentrations range from $1.60/1,000 gallons for systems serving between 500 and 1,000 persons to $0.44/1,000 gallons for systems serving more than 1,000,000 persons. When the removal efficiency required to treat the water is lower than the listed efficiency, a portion of the water can be treated and blended with an untreated portion to reduce the cost of this process.

*Ion Exchange.* Cation exchange to remove beryllium is considered BAT because of its demonstrated ability to reduce beryllium concentrations to levels below 0.001 mg/l at reasonable costs. Sodium cation exchange resins and ion exchange equipment are commercially available. Sodium cation exchange has successfully removed 95 percent of the beryllium from water. Typical beryllium removal for sodium cation exchange is in the range between 80 and 90 percent. The typical removals listed for beryllium are more than adequate since the occurrence data indicate that beryllium concentrations are unlikely to exceed 0.003 mg/l. Estimated costs for ion exchange to reduce beryllium concentrations range from $1.30/1,000 gallons for systems serving between 500 and 1,000 persons to $0.38/1,000 gallons for systems serving more than 1,000,000 persons. Since the removal efficiency required to treat drinking water contaminated with beryllium is unlikely to approach the typically achieved removal efficiency, treating only part of the source water and blending it with untreated water can significantly reduce ion exchange equipment and operating costs.

*Reverse Osmosis.* Reverse osmosis (RO) utilizes semi-permeable membranes to remove a high percentage of almost all inorganic ions, including beryllium. This technology is considered BAT for beryllium because it has been demonstrated to be effective in removing beryllium at feasible costs. Laboratory tests indicate that reverse osmosis is capable of removing between 96 and 99 percent of the beryllium. Reverse osmosis has been used on a full scale basis for the reduction of contaminants other than beryllium. Estimated costs for ion exchange to reduce beryllium concentrations range from $4.60/1,000 gallons for systems serving between 500 and 1,000 persons to $1.60/1,000 gallons for systems serving more than 1,000,000 persons. Since the removal efficiencies required for beryllium are expected to be lower than 96–99 percent, partial treatment and blending of the water could be used, which would reduce the estimated costs for this technology.

*Lime Softening.* Lime softening can achieve at least 95 percent removal of beryllium at optimum pH levels (i.e., above 11.5), as indicated by laboratory and pilot plant studies. Lime softening has been used on a full scale basis to reduce the hardness of drinking water. Estimated costs for lime softening to reduce beryllium concentrations range from $2.30/1,000 gallons for systems serving between 3,301 and 10,000 persons to $0.50/1,000 gallons for systems serving more than 1,000,000 persons. Since the removal efficiencies required for beryllium are expected to be lower than 95 percent, a portion of the water can be treated and blended with an untreated portion to reduce the costs of this process.

*Coagulation/Filtration.* Laboratory and pilot plant studies indicate that conventional coagulation using ferric sulfate, ferric chloride, or alum as a coagulant can achieve at least 90 percent removal of beryllium. Coagulation/filtration has been used on a full scale basis for the reduction of contaminants other than beryllium in drinking water. Estimated costs of reducing beryllium levels by use of conventional coagulation techniques range from $3.30/1,000 gallons for systems serving between 500 and 1,000 persons to $0.39/1,000 gallons for systems serving more than 1,000,000 persons. Since the removal efficiencies required for beryllium are expected to be lower than 90 percent, a portion of the water can be treated and blended with an untreated portion to reduce the cost of this process,

2. *Proposed MCL for Beryllium.* All of the technologies have demonstrated high beryllium removal efficiencies, are currently available, have been installed in public water supplies and are compatible with other water treatment processes in different regions of the U.S. Based on the cost data summarized above, EPA believes that the costs of these technologies to large systems are reasonable. The proposed MCLG for beryllium is zero. The PQL for beryllium

is proposed at 0.001 mg/l (five times the MDL), which is the level associated with a maximum lifetime individual risk of $1 \times 10^{-4}$. The maximum occurrence level for beryllium is under 0.003 mg/l in drinking water. Since all of the technologies listed above can remove beryllium from the maximum occurrence level to below the PQL, EPA is proposing an MCL of 0.001 mg/l for beryllium based on the proposed PQL. Comments are also being requested on whether the PQL and, thus, the MCL should be set at 0.002 mg/l (i.e., ten times the MDL).

*Cyanide*

1. *Technologies and Costs.* The Agency proposes that ion exchange, reverse osmosis and chlorine oxidation fulfill the SDWA requirements as best available technologies to remove cyanide.

*Ion Exchange.* Anion exchange to remove cyanide is considered BAT because of its demonstrated ability to reduce cyanide concentrations to levels below the proposed MCLG at reasonable costs. Typical cyanide removals for anion exchange are greater than 90 percent in bench scale studies. Estimated costs for ion exchange to reduce cyanide concentrations range from $1.20/1,000 gallons for systems serving between 500 and 1,000 persons to $0.29/1,000 gallons for systems serving more than 1,000,000 persons. Since the removal efficiency required for cyanide should be less than 90 percent, a portion of the water can be treated and blended with an untreated portion to reduce the cost.

*Reverse Osmosis.* This technology is considered BAT for cyanide because it has been demonstrated to be effective in removing cyanide at feasible costs. Laboratory bench scale tests indicate that reverse osmosis is capable of removing between 85 and 99 percent of the cyanide. Reverse osmosis has been used on a full scale basis for the reduction of contaminants other than cyanide. Estimated costs for reducing cyanide by reverse osmosis range from $4.60/1,000 gallons for systems serving between 500 and 1,000 persons to $1.60/1,000 gallons for systems serving more than 1,000,000 persons. Since the removal efficiency required for cyanide should be less than 85 percent, a portion of the water can be treated and blended with an untreated portion to reduce the cost of this process.

*Chlorine Oxidation.* Oxidation of cyanide by chlorination at pH $\geq$10 is considered BAT because of its demonstrated ability to reduce cyanide to levels below the proposed MCLG at reasonable costs. Reductions in cyanide concentrations are typically greater than 70 percent using this treatment. Estimated costs to reduce cyanide concentrations range from $0.20/1,000 gallons for systems serving between 500 and 1,000 persons to $0.01/1,000 gallons for systems serving more than 1,000,000 persons. Disinfection by-products can be a problem with this treatment if the raw water contains precursors. Pretreatment filtration might be required and would significantly increase treatment costs.

2. *Proposed MCL for Cyanide.* All of the technologies have demonstrated high cyanide removal efficiencies, are currently available, have been installed in public water supplies and are compatible with other water treatment processes in different regions of the U.S. Based on the cost data summarized above, EPA believes that the costs of these technologies to large systems are reasonable. The proposed MCLG for cyanide is 0.2 mg/l. The maximum reported occurrence level for cyanide in drinking water is 0.008 mg/l. EPA is proposing an MCL equal to the proposed MCLG of 0.2 mg/l for cyanide. EPA anticipates that no systems will exceed the proposed MCL of 0.2 mg/l.

*Nickel*

1. *Technologies and Costs.* The Agency proposes that ion exchange, reverse osmosis and lime softening fulfill the SDWA requirements as best available technologies to remove nickel.

*Ion Exchange.* Cation exchange to remove nickel is considered BAT because of its demonstrated ability to reduce nickel concentrations to levels below the proposed MCLG at reasonable costs. Typical nickel removals for cation exchange are greater than 70 percent in waste water studies where influent concentrations are close to drinking water levels. Removals in excess of 90 percent have been observed in several nickel treatment studies. Estimated costs for ion exchange to reduce nickel concentrations range from $1.30/1,000 gallons for systems serving between 500 and 1,000 persons to $0.38/1,000 gallons for systems serving more than 1,000,000 persons. Since the removal efficiency required for nickel should be less than the listed removal efficiencies, a portion of the water can be treated and blended with an untreated portion to reduce the cost of this process.

*Reverse Osmosis.* Reverse osmosis (RO) utilizes semi-permeable membranes to remove a high percentage of almost all inorganic ions, including nickel. This technology is considered BAT for nickel because it has been demonstrated to be effective in removing nickel at feasible costs. Laboratory tests indicate that reverse osmosis is capable of removing between 83 and 99.9 percent of nickel, with typical removal efficiencies in excess of 90 percent. Reverse osmosis has been used on a full scale basis for the reduction of contaminants other than nickel. Estimated costs for reducing nickel by reverse osmosis range from $4.60/1,000 gallons for systems serving between 500 and 1,000 persons to $1.60/1,000 gallons for systems serving more than 1,000,000 persons. Since the removal efficiency required for nickel should be less than 80 percent, a portion of the water can be treated and blended with an untreated portion to reduce the cost of this process.

*Lime Softening.* Lime softening can achieve at least 90 percent removal of nickel at optimum pH levels above 10, as indicated by laboratory, pilot and full scale waste water treatment studies. Lime softening has been used on a full scale basis to reduce the hardness of drinking water. Estimated costs for lime softening to reduce nickel concentrations range from $2.30/1,000 gallons for systems serving between 3,301 and 10,000 persons to $0.38/1,000 gallons for systems serving more than 1,000,000 persons. Since the removal efficiencies required for nickel are expected to be lower than 90 percent, a portion of the water can be treated and blended with an untreated portion to reduce the costs of this process.

2. *Proposed MCL for Nickel.* All of the technologies have demonstrated high nickel removal efficiencies, are currently available, have been installed in public water supplies and are compatible with other water treatment processes in different regions of the U.S. Based on the cost data summarized above, EPA believes that the costs of these technologies to large systems are reasonable. The proposed MCLG for nickel is 0.1 mg/l. The maximum reported occurrence level for nickel is 0.153 mg/l. Since all of the technologies listed above can remove nickel from the maximum occurrence level to below the MCLG, EPA is proposing an MCL equal to the proposed MCLG of 0.1 mg/l for nickel.

*Sulfate*

1. *Technologies and Costs.* The Agency proposes that reverse osmosis and ion exchange fulfill the SDWA requirements as best available technology to remove sulfate.

*Reverse Osmosis.* This technology is considered BAT for sulfate because it has been demonstrated to be effective in removing sulfate at feasible costs. Full scale tests indicate that reverse osmosis

is capable of removing between 86 and 97 percent of the sulfate. Reverse osmosis has been used on a full scale basis for the reduction of contaminants other than sulfate. Estimated costs for reducing sulfate by reverse osmosis range from $3.50/1,000 gallons for systems serving between 500 and 1,000 persons to $1.00/1,000 gallons for systems serving more than 1,000,000 persons. High sulfate levels are typically associated with high levels of total dissolved solids, which can indicate the presence of other inorganics; in such cases, reverse osmosis becomes a cost effective treatment technology because it removes those other inorganics as well. Since the removal efficiency required for sulfate will typically be less than 86 percent, a portion of the water can be treated and blended with an untreated portion to reduce the cost of this process.

*Ion Exchange.* Anion exchange to remove sulfate is considered BAT because of its demonstrated ability to reduce sulfate concentrations to levels below the alternative MCLGs of 400 mg/l and 500 mg/l at reasonable costs. Typical sulfate removals for anion exchange are greater than 75 percent in pilot and full-scale studies that evaluated influent concentrations that are close to drinking water levels. Estimated costs for ion exchange to reduce sulfate concentrations range from $2.90/1,000 gallons for systems serving between 500 and 1,000 persons to $1.40/1,000 gallons for systems serving more than 1,000,000 people. When the removal efficiency required for sulfate is less than 75 percent, a portion of the water can be treated and blended with an untreated portion to reduce the cost. For those systems with other anions that need to be removed (such as nitrate), the removal efficiency will decrease for those anions since sulfate is the preferred anion. Reverse osmosis should be considered in those cases.

2. *Proposed MCL for Sulfate.* Reverse osmosis and ion exchange have demonstrated high sulfate removal efficiencies, are currently available, have been installed in public water supplies and are compatible with other water treatment processes in different regions of the U.S. Based on the cost data summarized above, EPA believes that the costs of this technology to large systems are reasonable. There are two alternative MCLGs being proposed for sulfate (400 mg/l and 500 mg/l). The maximum reported occurrence level for sulfate in a national study is 1,000 mg/l. Since RO and IE can remove sulfate from the maximum occurrence level to below either of the proposed MCLGs, EPA is proposing an MCL equal to the MCLG adopted in the final rule.

EPA has considered allowing systems that can demonstrate that water will not be available to infants to meet a less stringent MCL for sulfate in the same manner as the current regulations for nitrate (see 40 CFR Section 141.11(d)). The Agency is not proposing such an exception today to the sulfate MCL, but requests comments on whether such an exception should be allowed.

*Thallium*

1. *Technologies and Costs.* The Agency proposes that ion exchange and activated alumina fulfill the SDWA requirements as best available technologies to remove thallium.

*Ion Exchange.* Cation exchange to remove thallium is considered BAT because of its demonstrated ability to reduce thallium concentrations to levels below 0.001 mg/l at reasonable costs. Sodium cation exchange resins and ion exchange equipment are commercially available. Sodium cation exchange has successfully removed greater than 90 percent of the thallium from water. This removal efficiency is adequate since occurrence data indicate that thallium concentrations are unlikely to exceed 0.01 mg/l. Estimated costs for ion exchange to reduce thallium concentrations range from $1.30/1,000 gallons for systems serving between 500 and 1,000 persons to $0.38/1,000 gallons for systems serving more than 1,000,000 persons. When the removal efficiency required to treat the water is lower than the listed efficiencies, a portion of the water can be treated and blended with an untreated portion to reduce the cost of this process.

*Activated Alumina.* Activated alumina removes thallium from waters by adsorption. Laboratory studies have indicated that activated alumina can remove greater than 95 percent of the thallium from water. The capacity for thallium adsorption by activated alumina is affected by the presence of anions in the source water such as fluoride (the regeneration frequency of the alumina bed decreases with the presence of fluoride). Estimated costs for activated alumina to reduce thallium concentrations range from $1.60/1,000 gallons for systems serving between 500 and 1,000 persons to $0.44/1,000 gallons for systems serving more than 1,000,000 people. When the removal efficiency required to treat the water is lower than the listed efficiency, a portion of the water can be treated and blended with an untreated portion to reduce the cost of this process.

2. *Proposed MCL for Thallium.* Both of the above technologies have demonstrated high thallium removal efficiencies, are currently available, have been installed in public water supplies and are compatible with other water treatment processes in different regions of the U.S. Based on the cost data summarized above, EPA believes that the costs of these technologies to large systems are reasonable. The proposed MCLG for thallium is 0.0005 mg/l. The PQL for thallium is proposed alternatively at 0.002 mg/l or 0.001 mg/l (ten or five times the MDL). The maximum occurrence level for thallium is 0.010 mg/l in drinking water. Since all of the technologies listed above can remove thallium from the maximum occurrence level to below the PQL, EPA is proposing an MCL of 0.002 mg/l for thallium based on the proposed PQL. Alternatively, the MCL would be set at 0.001 mg/l if the PQL is set at that level. Comments are being requested on whether the PQL and, thus, the MCL should be set at 0.001 mg/l or 0.002 mg/l.

3. *Synthetic Organic Chemicals.* The following section discusses EPA's consideration of technologies to remove SOCs and the Agency's determination of proposed BATs for the SOCs in this notice. In addition, this section discusses the Agency's rationale for the proposed MCLs. The rationale considers treatment technologies, costs, analytical method performance, and the goal of the SDWA to reduce health risks.

a. *Treatment Technologies.* EPA has examined the potential of a number of treatment processes to remove the SOCs which are the subject of this proposal. The compounds have been tested by EPA and other researchers in bench scale, pilot scale and full scale projects. The data generated by the various studies went into the determination of what is the Best Available Technology for the removal of the contaminant(s) and contributed to the evaluation of what the maximum contaminant level (MCL) in drinking water should be for each SOC.

In the 1986 Amendments to the Safe Drinking Water Act, Congress specified in Section 1412(b)(5) that:

> Granular activated carbon is feasible for the control of synthetic organic chemicals, and any technology, treatment technique, or other means found to be the best available for the control of synthetic organic chemicals must be at least as effective in controlling synthetic organic chemicals as granular activated carbon.

In practice, the effectiveness of granular activated carbon (GAC) for control of organic chemicals is highly dependent upon the characteristics of

the chemical, the type of carbon and the design of the carbon contactors.

In addition to GAC, EPA has examined other technologies for their potential to remove the proposed SOCs. These technologies are discussed in the document, "Technologies and Costs for the Removal of Synthetic Organic Chemicals from Potable Water Supplies" (referred to below as the SOC Tument). A draft of this document is available from the National Technical Information Service at the address listed at the front of this notice. A more complete description of the technologies evaluated can be found in EPA's drinking water regulations covering volatile organic chemicals (50 FR 46092, November 13, 1985, and 52 FR 25698, July 8, 1987) and in the proposal to regulate additional synthetic organic chemicals in drinking water (54 FR 22114, May 22, 1989). These materials and the reference SOC Tument are part of the public docket for this rulemaking. A summary of the individual technologies is provided below.

*Granular Activated Carbon.* Granular activated carbon (GAC) is capable of removing all the SOCs in this proposal. This technology has had extensive bench-scale testing either in the form of isotherm or dynamic minicolumn. Some pilot and several full scale evaluations have also been performed. Extensive testing of carbon absorption indicates it is effective in removing a broad spectrum of SOCs. Therefore, it is a feasible technology in removing SOCs from drinking water and is considered a best available technology for all SOCs covered in today's proposal (except dichloromethane, as discussed below).

*Packed Tower Aeration.* Packed tower aeration (PTA) has been successfully used to treat five of the SOCs in this notice. These tests primarily involved pilot scale testing of air stripping equipment. The five SOC compounds tested are chlorinated solvents and represent the more volatile (i.e., strippable) SOCs. Studies show PTA is as effective as GAC in removing some volatile SOCs and is, therefore, a best available technology for certain contaminants.

The transfer of VOCs from water to air has been a concern in the past. EPA has examined the risks resulting from aeration of VOC contaminated water and determined that this risk is negligible relative to that resulting from drinking contaminated water. For further information on air emissions of VOCs, see 50 FR 46911, November 13, 1985; 52 FR 25699, July 8, 1987; and 54 FR 22118, May 22, 1989.

*Reverse Osmosis.* Reverse osmosis along with other membrane technologies such as ultrafiltration has been tested for the removal of some SOCs from water. However, the available treatability information is rather limited and there is some question as to how SOC removals occur (i.e., rejection by the membrane or adsorption or to the membrane). For the above reasons, RO is not considered a best available technology at this time. Rather it should be considered as an additional technology which requires further development.

*Oxidation.* A number of oxidants are available for removing SOCs in drinking water. These include ozone, chlorine, chlorine dioxide, permanganate, hydrogen peroxide, and ultraviolet light (UV) (either by itself or in combination with any of the other oxidants). The ultimate end-product of complete oxidation is carbon dioxide and water, but the mechanism rarely goes to completion, as intermediate compounds formed during oxidation may be more resistant to oxidation. EPA does not consider oxidation best available technology at the present time because there is insufficient data on the removal of these SOCs by oxidation. Rather, it should be considered as an additional technology that requires further development. In addition to limited data on its effectiveness for the removal of SOCs, EPA has considerable concern about the potential health effects of degradation products formed by partial oxidation of some SOCs. See 54 FR 22114, May 22, 1989, for more information on the removal of SOCs by oxidation.

*Powdered Activated Carbon.* Powdered activated carbon (PAC) is considered an applicable method of applying carbon adsorption to remove SOCs. PAC is most frequently used for taste and odor control in conventional coagulation/filtration plants treating surface waters since it requires the same facilities (feed equipment, mixing chambers, clarifiers, and filtration) as those plants, as well as additional sludge handling capabilities. Unless these facilities are already in place, PAC is generally not economically feasible to treat drinking water. Therefore, EPA is not defining PAC as BAT at this time.

*Conventional Treatment.* Conventional treatment (coagulation/ sedimentation/ filtration) is capable of removing certain of the SOCs. However, removal levels for most SOCs have been poor and the reliability of the technology has not been proven sufficiently. Therefore, since conventional treatment is of limited effectiveness it is not considered best available technology. Rather, it should be considered as an additional technology of limited applicability.

b. *Identification of BAT.* The Agency is proposing packed tower aeration (PTA) and granular activated carbon (GAC), as best available technologies (BAT) for removing the SOCs from drinking water. The proposed BATs for each of the SOCs are listed in Table 11. These technologies are in wide use and have been successfully applied to the removal of various SOCs in many drinking water plants in the U.S. (see SOC Tument). Properly designed packed tower aeration facilities can achieve a high removal rate (90–99 percent or more) of volatile SOCs, which is as high as that achieved by GAC on these compounds. GAC appears to be capable of removing all of the compounds in this proposal, but is a more costly technique to use for the removal of dichloromethane (methylene chloride). Therefore, packed tower aeration is designated as the only BAT for this chemical. The Agency is designating PTA and GAC jointly as BAT for the other volatile compounds because the two technologies are equally cost effective for those chemicals. The Agency is designating GAC as the BAT for all other SOCs.

PAHs are a special case because EPA proposes to identify central treatment (GAC) as BAT, while PAH contamination may also occur through leaching from coal tar-lined piping. EPA has not found any technologies available to remove distribution system contamination that may be caused by coal tar linings. The Agency considered point-of-entry (POE) and point-of-use (POU) technologies, but determined not to identify these technologies as BAT (for the reasons discussed at 52 FR 25701). Although not identified as BAT, however, POE devices would be an acceptable means of compliance provided the criteria and the procedures set forth in 40 CFR 141.100 are followed. Public comments are requested on any other technologies that should be considered for removal of PAHs.

TABLE 11.—PROPOSED BAT FOR SOCS

| SOC | BAT [1] |
|---|---|
| Di(ethylhexyl)adipate [2] | GAC; PTA |
| Dalapon | GAC |
| Dichloromethane | —; PTA |
| Dinoseb | GAC |
| Diquat | GAC |
| Endothall [2] | GAC |
| Endrin | GAC |
| Glyphosate | GAC |
| Hexachlorobenzene | GAC |
| Hexachlorocyclopentadiene | GAC; PTA |
| Oxamyl (vydate) | GAC |
| PAHs [Benzo(a)pyrene] [2] | GAC |

TABLE 11.—PROPOSED BAT FOR SOCs—Continued

| SOC | BAT [1] |
|---|---|
| Di(ethylhexyl)phthalate | GAC |
| Picloram | GAC |
| Simazine | GAC |
| 1,2,4-Trichlorobenzene | GAC; PTA |
| 1,1,2-Trichloroethane | GAC; PTA |
| 2,3,7,8-TCDD [2] | GAC |

[1] Packed Tower Aeration (PTA); Granular Activated Carbon (GAC).

[2] Tests for di(ethylhexyl)adipate and endothall were inconclusive due to analytical difficulties. For these two compounds and for 2,3,7,8-TCDD, EPA relied on model predictions based on physical/chemical properties.

[3] GAC is also BAT for other PAHs. However, GAC is only BAT if PAH contamination originates at the water source; otherwise, there is no BAT.

Although oxidation and conventional treatment may be capable of removing certain SOCs to some degree, their effectiveness and reliability have not been proven sufficiently to meet the statutory criteria for being designated BAT over GAC (see SDWA section 1412(b)(5)). Therefore, in the Agency's judgment, only GAC and PTA are considered BAT for SOC removal at this time. A detailed discussion of GAC and PTA is provided below.

*Granular Activated Carbon—Process Description.* Research studies evaluating the effectiveness of GAC indicate that GAC can remove a broad spectrum of organic chemicals from water. Although GAC is considered to be the best broad spectrum removal process, it exhibits a wide range of effectiveness in absorbing organic compounds.

In general, the strongly adsorbed compounds consist of high molecular weight pesticides and other SOCs with high boiling points, low solubilities, and consequently low carbon usage rates. Endrin, glyphosate, and simazine are examples of compounds included in this category. In contrast, weakly adsorbed compounds are comprised of low molecular weight SOCs, which possess low boiling points, moderate solubilities, and therefore high carbon usage rates. Methylene chloride is an example of a weakly adsorbed SOC. Moderately adsorbed SOCs which have physical and chemical properties which lie between those of the strongly and weakly adsorbed compounds. Hexachlorobenzene and 1,1,2-trichloroethane have intermediate carbon usage rates characteristic of this classification.

*GAC—Operating Considerations.* The application of granular activated carbon adsorption for removing organic compounds from drinking water supplies involves the following major process design considerations:

—Carbon Usage Rate (CUR)—pounds of carbon per volume of water treated
—Empty Bed Contact Time (EBCT)
—Pretreatment
—Contactor Configuration—downflow versus upflow, pressure versus gravity, single-stage versus multi-stage or parallel versus series
—Method of GAC Regeneration—on-site versus off-site.

A summary of these process design considerations follows. For further information on these parameters, see discussion at 54 FR 22116.

*Carbon Usage Rate.* This basic design parameter, expressed as lbs/1,000 gallons, indicates the pounds of carbon required per 1,000 gallons of water treated—in this case to the level of the MCL. It indicates the rate at which carbon will be exhausted and replaced, thus affecting the operating cost of the treatment system.

The carbon usage rate for the various contaminants depends on the type and the concentration of organic substances in the influent source water, the effect of preloading of natural organics on the carbon, the contact time, and the maximum concentration of organics allowable in the effluent (i.e., levels at or below the MCL). Carbon usage rates derived from distilled water isotherms have been adjusted to reflect competitive adsorption by natural organics.

*Empty Bed Contact Time.* The empty bed contact time (EBCT) is the volume of carbon divided by the hydraulic flow rate of the water. The EBCT provides an indication of the quantity of carbon which must be on-line at any one time to allow sufficient contact time with the water which will flow through it for the carbon to remove the impurity. The EBCT is an important design parameter as it reflects the capital cost for the system. As the EBCT increases, the CUR decreases until about 12–15 minutes where the curve flattens out. The CUR may increase at long EBCTs reflecting competitive adsorption of background organics deeper in the bed.

*Pretreatment.* GAC systems may require some kind of pretreatment to prevent clogging of the carbon bed and to minimize the organic loading on the carbon. Clogging of the bed may be caused by suspended solids in the influent water, by iron and manganese precipitation, or by biological growth when the carbon bed life is long. When the background organic levels in the raw water are high, carbon is used at a faster rate, necessitating more frequent regeneration (or replacement). This increases the operating cost of the system. Pretreatment can reduce the organic loading on the carbon, thereby decreasing the carbon usage rate. The need for pretreatment should, however, be justified on the basis of costs. Examples of processes which may be used for pretreatment include conventional treatment, ozonation, and packed column aeration.

*Contactor Configuration.* The two basic modes of contactor operation are upflow and downflow. Upflow expanded bed contactors allow suspended solids to pass through the bed without producing a major drop in pressure. This configuration is not generally used in water treatment processes where the level of suspended solids is relatively low. Downflow fixed bed contactors offer the simplest and most common contactor configuration for SOC removal from drinking water. These contactors can be operated either under pressure or by gravity.

*Method of GAC Regeneration.* Another basic consideration in evaluating GAC system design for SOC removal is the method of carbon regeneration. The two basic approaches to regenerating the carbon are off-site regeneration or disposal and on-site regeneration. Based on information from GAC manufacturers, on-site regeneration generally does not appear to be economical for systems where the carbon usage rate is less than 1,000 to 2,000 pounds per day.

*Treatability Studies for GAC.* Studies on the treatability of the SOCs by GAC can be classified into four types of evaluations: isotherm, bench (dynamic), pilot and full scale. Freundlich isotherm constants are chemical-specific parameters that characterize the ability of certain concentrations of a substance to adsorb onto GAC. Thus, isotherm evaluations are batch tests which yield information about the maximum equilibrium SOC loading on a particular carbon at a given SOC concentration.

Test results indicate that adsorption of any particular chemical by carbon is influenced by pH, temperature, and type of carbon used. Much of the isotherm information was provided by U.S. EPA Drinking Water Research Division (USEPA–DWRD) (Speth, T.F. and R.J. Miltner, and J.M. Reinhod, 1988; Speth, T.F. and R.J. Miltner, 1990); although information from other investigators was also used. Isotherm values for the various SOCs in this proposal are presented in the SOC T&C document.

Bench scale testing involves the use of dynamic microcolumns to estimate carbon usage rates under flow-through conditions. Bench scale studies also involve determination of adsorption mass transfer parameters for GAC. Pilot

testing is conducted using larger columns than are used in laboratory testing and thus require significantly greater quantities of water and time. Full-scale testing evaluates performance in actual field installations. Bench, pilot and full-scale studies on the SOCs under investigation have been reported in the literature and are summarized by chemical in the SOC T&C document.

The effectiveness of GAC in the bench, pilot and full-scale studies was indicated by the percent removal or the bed life. For those compounds for which experimental data was not available, EPA estimated the effectiveness of GAC by using a model to compare the solubility and molecular weight of a compound with known adsorptivity to estimate the adsorptivity of another compound having similar physical/chemical properties. As mentioned earlier, compounds with low solubilities and/or high molecular weights are amenable to GAC adsorption.

Certain volatile organics (especially at low concentration levels) have relatively poor adsorbabilities, which result in higher carbon usage rates. Because of their volatile nature, these SOCs may be removed more economically by packed tower aeration, which is discussed below.

*Packed Tower Aeration—Process Description.* The purpose of packed tower aeration (PTA) or packed column air stripping is to optimize conditions under which SOCs will transfer out of solution in water to solution in air. According to Henry's Law, the concentration of gas dissolving in a liquid at constant temperature and pressure is proportional to the partial pressure of the gas above the solution. If the equilibrium concentration of the gas above the liquid decreases, the tendency is for the gas dissolved in the liquid to transfer back to the gaseous phase. In PTA, usually water enters the top of a column filled with packing material which spreads the liquid into thin films in the packing providing high surface area. Air is forced up through the column and "strips" the volatile compounds from the water.

The rate at which a volatile compound is removed from water by aeration depends on the following factors:

—physical/chemical characteristics
—temperature of the water and air
—air to water ratio
—packing height
—available area for mass transfer

The first two factors are specific to the water supply; the last three are controlled by the design. The height of the packing, the mass transfer coefficient, the amount of air pushed through the tower (air loading), the amount of water put into the tower (liquid loading), Henry's coefficient and atmospheric pressure are all considerations in determining the best configuration for the packed tower.

Each SOC has a relative tendency to transfer, or partition, out of solution in water, and that tendency is quantified by a mass transfer coefficient (MTC). The mass transfer coefficient is a function of the design of the column and the chemical. The driving force for mass transfer is a change in the equilibrium which develops a concentration gradient. The mass transfer coefficient relates the concentration gradient (driving force) with the actual quantity of material transferred from liquid to air. In packed columns, the packing material maximizes the surface area of water exposed to the air moving through the column. The air moving through the tower prevents equilibrium, and maintains the concentration gradient, forcing more gas out of solution into the air.

The greater the Henry's Law Coefficient (HLC), generally the more volatile the compound, and the less air required to remove the compound from the water (i.e., the air to water ratio can be lower). As a rule of thumb, SOCs having HLCs less than 1 atmosphere at or above room temperature, probably would not be effectively removed by packed tower aeration. In actual field conditions, the coefficient is approximately 50% of the value estimated from vapor pressure and solubility data at 20°C.

*Treatability Studies for PTA.* Bench, pilot and full-scale studies have been conducted on volatile SOCs. Bench scale studies involve the determination of Henry's Constants and mass transfer coefficients. The performance of packed tower aeration systems in removing SOCs is dependent upon the mass transfer coefficient.

The MTCs can be estimated from SOC physical/chemical properties and the physical characteristics of a particular packing material or they can be developed by actual pilot testing. The modeling approach allows the investigators to control the design variables easier than with a full scale plant. Full scale facility data is used to adjust the model to reflect real world conditions but the model gives a consistent basis for cost comparison between different chemicals. The mass transfer coefficients developed by EPA were incorporated into a packed column design model to optimize the design criteria. The design criteria were then used in developing costs to determine the feasibility of PTA in removing individual SOCs from drinking water.

The costs associated with the removal of SOCs by PTA and/or GAC are given in Table 12. Based on this information, EPA proposes that PTA is BAT in addition to GAC for the volatile (i.e., strippable) SOCs with the exception of dichloromethane. For dichloromethane, EPA proposes only PTA as BAT since it is more effective in removing dichloromethane than is GAC, and since the costs associated with its removal are significantly lower than for GAC in all system size categories. EPA requests comments on whether PTA should be specified as BAT for these contaminants.

TABLE 12.—GAC AND PACKED COLUMN COSTS TO REMOVE SOCS

[$/Household/Year] [1]

| | GAC | | | PTA | | |
|---|---|---|---|---|---|---|
| | small | medium | large | small | medium | large |
| Volatile SOCs: [2] | | | | | | |
| Dichloromethane | 1500 | 290 | 112 | 490 | 10 | 7 |
| Di(ethylhexyl)adipate | 930 | 51 | 14 | 170 | 11 | 7 |
| Hexachlorocyclopentadiene | 910 | 36 | 10 | 490 | 10 | 7 |
| 1,2,4-Trichlorobenzene | 910 | 36 | 10 | 490 | 10 | 7 |
| 1,1,2-Trichloroethane | 930 | 51 | 14 | 530 | 22 | 17 |
| Non-Volatile SOCs: | | | | | | |
| Dalapon | 950 | 76 | 23 | | | |
| Di(ethylhexyl)phthalate | 910 | 36 | 10 | | | |
| Dinoseb | 910 | 36 | 10 | | | |

TABLE 12.—GAC AND PACKED COLUMN COSTS TO REMOVE SOCs—Continued

[$/Household/Year] [1]

| | GAC | | | PTA | | |
|---|---|---|---|---|---|---|
| | small | medium | large | small | medium | large |
| Diquat | 930 | 51 | 14 | | | |
| Endothall | 950 | 76 | 19 | | | |
| Endrin | 910 | 36 | 10 | | | |
| Glyphosate | 950 | 76 | 19 | | | |
| Hexachlorobenzene | 910 | 36 | 10 | | | |
| Oxamyl (Vydate) | 930 | 51 | 14 | | | |
| PAHs [Benzo(a)pyrene] | 910 | 36 | 10 | | | |
| Picloram | 950 | 76 | 19 | | | |
| Simazine | 910 | 10 | 36 | | | |
| 2,3,7,8-TCDD (Dioxin) | 910 | 36 | 10 | | | |

[1] Costs include amortized capital and annual operation and maintenance (which include waste disposal costs).
Costs given are for 90% removal, except for the costs for removal of benzo(a)pyrene and di(ethylhexyl)phthalate by packed tower aeration, where costs given are for 95% removal and for removal of 1,2,4-trichlorobenzene by packed tower aeration, where costs given are for 92.5% removal.
Small systems serve 25–100 persons; medium systems serve 10,000–25,000 persons; large systems serve greater than 1,000,000 persons.
Costs in $/household/year. Production in ¢/1,000 gallons is equal to dollars per household per year (i.e., 8¢/1,000 gallons = $8.00/household per year).
[2] Volatile SOCs refers here to strippable compounds.

When both GAC and PTA are effective in treating a volatile SOC, the decision to use either technology depends on, among other things, the SOC, or combination of SOCs, the influent concentration, and the size of the system. For PTA, costs rise with increased percent removals needed to meet the MCL. For GAC, greater removals will only significantly increase cost if the CUR becomes greater than 0.1 lb/1,000 gallons. A volatile SOC may be cheaper to control using GAC than PTA if it has a strong affinity for carbon (a low CUR) and the influent concentration is high (high percent removal required to meet the MCL). For volatile SOCs with a low or medium CUR, total costs using GAC may be lower than PTA for large systems, yet higher than PTA for small systems. The choice of GAC or PTA is also dependent on the design factors of each system.

The transfer of VOCs from water to air by packed tower aeration (PTA) technology may, under certain circumstances, pose a problem of exposure to the surrounding population via inhalation. EPA considered the risks posed to populations near treatment facilities by air stripping of dichloromethane. This contaminant is amenable to removal from water using PTA. It is also a probable carcinogen with a unit risk factor for inhalation (per $\mu g/m^3$) of $4.1 \times 10^{-6}$, and a unit (per $\mu g/l$) risk factor for oral ingestion of $2.1 \times 10^{-7}$.

To quantify the potential risk posed by air stripping to downwind populations, EFA used a human exposure model (HEM) to perform a risk assessment. For dichloromethane, the analysis indicates that the risk resulting from exposure by inhalation from any size treatment plant is several orders of magnitude lower than that resulting from drinking contaminated water, and that the amount of dichloromethane added to the air does not significantly increase risks from overall airborne contamination.

Several states allow no emissions from PTA regardless of downwind risks. In order to provide a sense of the range of costs which could be expected in cases where emission controls are required or prudent, EPA is providing information on the estimated costs using vapor phase carbon. Table 13 gives the estimated costs *in addition* to the cost of the PTA itself.

TABLE 13.—ADDITIONAL COSTS FOR TREATING EMISSIONS FROM PTA UNITS

[$/Household/Year] [1]

| | Vapor phase carbon | | |
|---|---|---|---|
| | System Size | | |
| | Small | Medium | Large |
| Volatile SOCs: | | | |
| Dichloromethane | 350 | 22 | 18 |
| Di(ethylhexyl)adipate | 270 | 9 | 7 |
| Hexachlorocyclopentadiene | 270 | 9 | 7 |
| 1,2,4-Trichlorobenzene | 270 | 9 | 7 |
| 1,1,2-Trichloroethane | 350 | 22 | 18 |

[1] Costs in $/household/year. Production in cents/1,000 gallons in equal to dollars per household per year.
Small systems serve 25–100 persons; medium systems serve 10,000–25,000 persons; large systems serve greater than 1,000,000 persons.

c. *Proposed MCLs for Synthetic Organic Chemicals.* EPA established the proposed MCLs for the synthetic organic chemicals based upon an analysis of several factors. These include: (1) The effectiveness of BAT (either GAC or PTA) to reduce contaminant levels from influent concentrations to the MCLG level. The two BATs are capable of reducing the SOCs to extremely low levels and are not the limiting factor for setting the MCLs for these contaminants as close to the MCLGs as is feasible; (2) The feasibility (including costs) of applying BAT. EPA considered feasibility by considering the costs of installation and operation for large systems (serving more than 1,000,000 people); (3) The practical quantitation level (PQL) for each contaminant. In order to ensure that measurements of contaminants at the MCL are sufficiently precise and accurate, the MCL is set at a level which is no lower than the PQL; (4) After taking into account the above factors, EPA then considered the risks at the MCL level for the carcinogens (i.e., contaminants with proposed MCLGs of zero) to determine whether they would be adequate to protect public health. A target risk range of $10^{-4}$ to $10^{-6}$ was considered adequately protective of public health when calculated by the conservative linear multistage model. The factors EPA used in its analysis are summarized in Tables 14 and 15 for the non-carcinogenic and carcinogenic contaminants, respectively.

TABLE 14.—MCL ANALYSIS FOR SYNTHETIC ORGANIC CONTAMINANTS (NON-CARCINOGENS)

| SOC contaminant | Proposed MCLG (mg/l) | Proposed MCL (mg/l) | PQL (mg/l) | Annual household costs using BAT [1] | |
|---|---|---|---|---|---|
| | | | | GAC | PTA |
| Dalapon | 0.2 | 0.2 | 0.01 | $14.00 | |
| Di(ethylhexyl)adipate | .5 | .5 | .005 | 10.00 | $7.00 |
| Dinoseb | .007 | .007 | .002 | 8.00 | |
| Diquat | .02 | .02 | .004 | 10.00 | |
| Endothall | .1 | .1 | .09 | 14.00 | |
| Endrin | .002 | .002 | .001 | 8.00 | |
| Glyphosate | .7 | .7 | .06 | 14.00 | |
| Hexachlorocyclopentadiene | .05 | .05 | .001 | 8.00 | 7.00 |
| Oxamyl (Vydate) | .2 | .2 | .02 | 10.00 | |
| Picloram | .5 | .5 | .001 | 14.00 | |
| Simazine | .001 | .001 | .0007 | 8.00 | |
| 1,2,4-Trichlorobenzene | .009 | .009 | .005 | 8.00 | 7.00 |
| 1,1,2-Trichloroethane | .003 | .005 | .005 | 10.00 | 17.00 |

[1] For large systems serving >1,000,000 people.

TABLE 15.—MCL ANALYSIS FOR SYNTHETIC ORGANIC CONTAMINANTS (CARCINOGENS)[1]

| SOC contaminant | Proposed MCLG [2] (mg/l) | Proposed MCL (mg/l) | $10^{-4}$ risk | PQL (mg/l) | Annual per capita household costs [3] | | Notes |
|---|---|---|---|---|---|---|---|
| | | | | | GAC | PTA | |
| Dichloromethane | 0 | 0.005 | 0.05 | 0.005 | | $7.00 | |
| Di(ethylhexyl)phthalate[4] | 0 | .004 | .4 | .004 | $8.00 | | |
| Hexachlorobenzene | 0 | .001 | .002 | .001 | 8.00 | | |
| PAHs: | | | | | | | |
| Benzo(a)pyrene | 0 | .0002 | .0002 | .0002 | 8.00 | | |
| Benz(a)anthracene | 0 | .0001 | | .0001 | 8.00 | | $10^{-4}$ risk. |
| Benzo(b)fluoranthene | 0 | .0002 | | .000 | 8.00 | | |
| Benzo(K)fluoranthene | 0 | .0002 | | .0002 | 8.00 | | Is not. |
| Chrysene | 0 | .0002 | | .0002 | 8.00 | | |
| Dibenz(a,h)anthracene | 0 | .0003 | | .0003 | 8.00 | | Available for six PAHs. |
| Indenopyrene | 0 | .0004 | | .0004 | 8.00 | | |
| 2,3,7,8-TCDD | 0 | $5\times10^{-8}$ | $2\times10^{-8}$ | $5\times10^{-8}$ | 8.00 | | PQL is 5 times MDL; Proposed MCL is $2.5\times10^{-4}$ risk. |

[1] Classified by EPA as B2 carcinogens.
[2] EPA policy is that for all A and B carcinogens the MCLG is zero.
[3] For large systems serving <1,000,000 people.
[4] EPA also requests comment on an MCLG and MCL of 0.1 mg/l for butylbenzylphthalate.

*Non-carcinogenic Contaminants.* For twelve of the thirteen non-carcinogenic contaminants listed in Table 14, the MCLs are proposed equal to their proposed MCLGs levels. Section 1412 of the SDWA requires EPA to set MCLs as close to the MCLGs as is feasible (taking costs into consideration). EPA believes that it is feasible to set the MCL at the MCLG for these twelve SOCs because: (1) The PQL for each contaminant is at or below the level established by the MCLG; (2) BAT can remove each contaminant to a level equal to or below the MCLG level; and (3) the annual household costs to install BAT in large systems is a maximum of $17.00 per household per year and generally $10.00 or less. EPA believes that these costs are affordable for large systems. Therefore, EPA proposes the MCLs for these twelve non-carcinogenic contaminants equal to their MCLGs.

For 1,1,2-trichloroethane, the MCL is being proposed at the PQL of 0.005 mg/l, which is slightly higher than the MCLG of 0.003 mg/l. EPA believes that setting the MCL at the PQL for this compound is as close to the MCLG as is feasible. Public comments are requested on all the proposed MCLs and particularly for 1,1,2-trichloroethane.

*Carcinogenic Contaminants.* EPA considered the same factors in determining the proposed MCLs for carcinogenic contaminants as were used for the non-carcinogenic contaminants. However, the proposed MCLGs for carcinogens are zero, a level which by definition is not "feasible" because no analytical method is capable of determining whether a contaminant level is zero. The lowest level which can be reliably measured is the PQL. As described in Section IV–A above, EPA calculated PQLs for most SOCs at 10 times the method detection limit (MDL). For 2,3,7,8-TCDD, EPA proposes to set the PQL at 5 times the MDL reported in Method 513 ($1\times10^{-8}$ mg/l or 10 ppq) because the Agency believes that the carcinogenic risks posed by this contaminant justify somewhat less precision in measurement in order to obtain a more stringent level of control. The resulting PQL of $5\times10^{-8}$ mg/l (or 50 ppq) is associated with an increased cancer risk of $2.5\times10^{-4}$ which is somewhat higher than the $10^{-4}$ to $10^{-6}$ risk range that is generally considered by the Agency to be acceptable. EPA requests comments on whether it is technically feasible to set a lower PQL for 2,3,7,8-TCDD, since EPA considers the PQL to be a lower-bound constraint in setting the MCL. EPA believes that setting the MCL equal to the PQL for each carcinogenic contaminant is as close to the MCLG as is feasible.

EPA's Industrial Technology Division conducted a single laboratory method detection limit (MDL) study recently for Method 1613. This method involves a high resolution gas chromatographic mass spectrometry technique for the determination of 2,3,7,8-TCDD which is similar to the proposed Method 513. The basic design of this study was in accordance with the procedure for determining MDLs specified in Appendix B of 40 CFR part 136. The calculated single laboratory MDL using this procedure was $5 \times 10^{-9}$ mg/l (5 ppq). The "minimum level" listed in Method 1613 is currently 10 ppq. The minimum level corresponds to the concentration in a sample equivalent to the concentration of the analyte in the lowest of the calibration standards, assuming 100 percent recovery. This is the level at which the entire analytical system gives recognizable mass spectra.

EPA plans to conduct an interlaboratory validation study of Method 1613 in the near future to determine the interlaboratory variability of the measurements. This study will determine whether the reported MDL and minimum level values for Method 1613 are a reasonable expectation for different laboratories (and may also be used to reassess Method 513). Interlaboratory variability may be a significant factor in the selection of the final values.

EPA awaits additional information on the performance of Methods 513 and 1613 before a final decision is made on the PQL (and the MCL) for dioxin.

In setting water quality criteria for the protection of human health under the Clean Water Act, the Agency evaluates the same health effects data used in developing drinking water standards. The same assumptions are made with respect to human consumption of drinking water (70-kg adult, 2 liters of water per day). However, water quality criteria include a bioconcentration factor in fish and assumptions related to human fish consumption (not used in the development of drinking water standards) which may result in significantly different water quality criteria that are, for some contaminants, more stringent than drinking water standards. Analytical feasibility is not considered in setting water quality criteria.

In setting National Pollutant Discharge Elimination System (NPDES) permits under the Clean Water Act, limits are generally based on average discharges over a specified time period (with possible exceedance of the concentration limit allowed during a certain time period). The monitoring program involves minimum prescribed monitoring and permittees are generally subject to reporting concentrations at the MDL or above. Under this program, the use of the MDL for reporting contaminant concentrations is often required because there are few permits issued and the Agency feels that the few facilities affected (about 100 pulp and paper plants) can use the best laboratories available to conduct the analyses under tightly controlled conditions. Under such conditions, these laboratories should be able to attain the MDL which was developed under research conditions.

In the drinking water program, standards are applied nationwide to potentially thousands of public water systems instead of a limited number of facilities as for NPDES permit limitations. Therefore, it is not practical for EPA to tailor MCLs to the capabilities of the best analytical laboratories. While the MDL may be acceptable for setting permit limitations for carcinogens under the NPDES permits program, the drinking water standards consider the lowest concentration routinely achievable by good laboratories within specified performance limits. At the present time, there are only about ten laboratories in the United States experienced in dioxin analysis under Superfund's Contract Laboratory Program. As more laboratories are needed for routine analyses under the drinking water program, the Agency expects more variability in their performance. Therefore, the Agency believes that the MDL would not provide a reliable measure of compliance under this program.

Public comments are requested on the approach for setting MCLs in the drinking water program, and for dioxin in particular, given in the discussion above. Specific comments are requested on the following issues:

- Are the alternative MDLs of 5 ppq (Method 1613) and 10 ppq (Method 513) reasonable expectations for 2,3,7,8-TCDD? Which level is more appropriate?
- Should EPA set the PQL and the MCL for 2,3,7,8-TCDD based on five times the MDL given the estimated cancer risk or would a lower PQL (perhaps 2 to 3 times the MDL) be more appropriate in this situation? Using the alternative MDLs listed above (5 ppq and 10 ppq), the PQL (and MCL) would be either 25 ppq or 50 ppq if the "five times the MDL" approach is used.
- Should the MCL be set at the estimated "minimum level" of 10 ppq reported in Method 1613?

EPA also calculated the per capita costs to remove the carcinogenic SOCs to a level at or below the MCL using GAC or PTA. These costs range from $7.00 to $8.00 per household per year for large systems using BAT. EPA believes these costs are reasonable and proposes the MCLs at the levels listed in Table 15.

## V. Variances and Exemptions

### *A. Variances*

Under Section 1415(a)(1)(A) of the SDWA, EPA or a State which has primary enforcement responsibility (i.e., primacy) may grant variances from MCLs to those public water systems that cannot comply with the MCLs because of characteristics of the water sources that are reasonably available. A variance may only be granted to those systems which have installed BAT as identified by EPA pursuant to Section 1415. Though EPA is not proposing that BATs meet specified performance criteria, EPA solicits comments on this issue. EPA at the time of final promulgation of this rule may specify minimum performance criteria before a variance is issued.

Furthermore, before EPA or a State may grant a variance, it must find that the variance will not result in an unreasonable risk to health. The levels representing an unreasonable risk to health for each of the contaminants in this proposal will be addressed in guidance from EPA. In general, the unreasonable risk to health level would reflect acute and subchronic toxicity for short-term exposures and high carcinogenic risks for long-term exposures (as calculated using the linearized multistage model in accordance with the Agency's risk assessment guidelines).

Under section 1413(a)(4), States that choose to issue variances must do so under conditions, and in a manner, which are no less stringent than EPA allows under section 1415. States may adopt MCLs which are more stringent than the federal MCLs.

EPA specifies BATs that must be used for variance purposes. EPA may vary its BAT findings under section 1415 for variances from its BAT findings under section 1412 for MCLs depending on a number of factors, including system size, physical conditions related to engineering feasibility, and MCL compliance costs.

#### 1. Best Available Technology for Inorganic Compounds

EPA proposes the same technologies listed in Table 8 as BAT for the IOCs under section 1415, except coagulation/filtration and lime softening are not proposed as BAT for small systems (i.e.,

those systems <500 connections) for the purpose of granting variances because they are not economically feasible for small systems. Coagulation/ filtration and lime softening of the heavy metals (i.e., antimony, beryllium and nickel) are more complex than conventional treatment methods (i.e., treatment for turbidity removal). EPA believes that coagulation/filtration and lime softening are too complex to be considered practical technologies for small systems because of the need for increased operating time and the increased level of expertise required to operate systems employing these methods (see 54 FR 22123).

Costs of installing and operating reverse osmosis, activated alumina, and ion exchange are relatively high for small systems compared to large systems. However, these cost estimates are based on assumed average flow rates which represent a wide range of flow rates at small systems. Depending on the actual flow rate at a small system, treatment costs may be higher or lower than those used to determine BAT under section 1415. In addition, there may be other engineering designs or operating practices (e.g., blending), which may result in lower costs than those used to determine BAT under section 1415. EPA is currently looking into the availability of other treatment technology designs which may provide less expensive treatments to consider as BAT under section 1415 for these contaminants. The Agency is also developing affordability criteria for purposes of identifying BAT and granting variances. EPA intends to request public comment on those criteria in a separate notice.

With regard to BAT under section 1415, EPA requests comment on: (1) Whether other technologies should be considered BAT under Section 1415 for the IOCs; (2) whether it is appropriate to exclude coagulation/filtration and lime softening for small systems; and (3) the appropriateness of reverse osmosis (RO), ion exchange and activated alumina as BAT under Section 1415 for small systems, considering the large cost per household which would result. EPA notes that RO offers the benefit of multiple contaminant removal and desalting, which makes RO technology especially attractive for some drinking water systems, including small systems.

2. Best Available Technology for Synthetic Organic Chemicals

EPA proposes the same technologies listed in Table II above as BAT for the SOCs under section 1415. GAC is BAT for all the SOCs, except for dichloromethane. PTA is BAT for this contaminant. PTA is also BAT for four additional SOCs in this notice (hexachlorobenzene, hexachlorocyclopentadiene, 1,2,4-trichlorobenzene and 1,1,2-trichloroethane). EPA believes these technologies are technologically and economically feasible for systems of all sizes.

Public comments are requested on the proposed BATs for the SOCs for purposes of granting variances under section 1415.

*Use of POU Devices and Bottled Water:* Under Section 1415(a)(1)(A)(ii) of the Act, when the State grants a variance, it must prescribe an implementation schedule of any additional required control measures. The State may require the use of POU devices, bottled water, or other mitigating measures as "additional control measures" as a condition if an unreasonable risk to health exists. EPA has previously promulgated regulations specifying when POU devices and bottled water may be used. (See 52 FR 25690, 25701–25702, and 25708 July 8, 1987.) This proposed rule would extend those provisions to cover the contaminants in this notice. EPA's explanation for those provisions is contained in the July 8, 1987 rulemaking.

*B. Exemptions*

Under section 1416(a), a State or EPA may grant an exemption extending deadlines for compliance with a treatment technique or MCL if it finds that (1) due to compelling factors (which may include economic factors), the PWS is unable to comply with the requirement; (2) the exemption will not result in an unreasonable risk to human health; and (3) the system was in operation on the effective date of the NPDWR, or, for a system not in operation on that date, that no reasonable alternative source of drinking water is available to the new system.

If EPA or a State grants an exemption it must at the same time prescribe a compliance schedule (including increments of progress) and it may specify appropriate control measures that the system must meet while the exemption is effective. Under Section 1416(2)(A), the schedule must require compliance within one year after issuance of the exemption. However, section 1416(b)(2)(B) states that EPA or the State may extend the final compliance date for a period not to exceed three years, if the public water system is taking all practicable steps to comply and one of the following conditions applies: (1) The system cannot comply without capital improvements which cannot be completed within the period of the exemption; (2) in the case of a system which needs financial assistance for the necessary implementation, the system has entered into an agreement to obtain financial assistance; or (3) the system has entered into an enforceable agreement to become part of a regional public water system. For public water systems which serve less than 500 service connections and which need financial assistance for the necessary improvements, EPA or the State may renew an exemption for one or more additional two-year periods if the system establishes that it is taking all practicable steps to meet the requirements noted above.

Under Section 1416(d), EPA is required to review State-issued exemptions at least every three years and, if the Administrator finds that a State has, in a substantial number of instances, abused its discretion in granting exemptions or failed to prescribe schedules in accordance with the statute, the Administrator, after following established procedures, may revoke or modify those exemptions and schedules. EPA will use these procedures to scrutinize exemptions granted by States and, if appropriate, may revoke or modify exemptions.

As a condition for receiving an exemption, the State may require the use of POU devices or bottled water for the duration of the exemption. The conditions for use of POU devices or bottled water by public water systems who are granted exemptions are the same as those referenced in the variance section.

## VI. Compliance Monitoring Requirements

*A. Background*

Today's proposal includes compliance monitoring requirements to determine whether community (CWS) and non-transient, non-community water systems supply drinking water that meets the MCLs. The contaminants in this proposed rule usually occur at limited frequencies, thereby justifying flexible national monitoring requirements. In general, the possible occurrence of these contaminants may be predictable in drinking water based upon a multiplicity of factors such as geological conditions, use patterns (e.g., pesticides), presence of industrial activities in the area, type of source or historic record. Cases such as these appear to warrant conferring discretion on States with authorized PWS programs so that monitoring activities can be tailored to local

conditions. Thus, although compliance with the MCL will be required in all cases, States would be provided latitude in establishing monitoring requirements provided that they meet minimum federal standards.

In the May 22, 1989 notice, EPA already proposed special monitoring requirements for all six of the inorganic and 13 of the organic chemicals covered in today's notice (see 54 FR 22154). Early monitoring (i.e., monitoring before the MCLs for these contaminants become effective) was proposed for these contaminants under the authority of SDWA section 1445. These special monitoring requirements will be effective 30 days after promulgation of the rule taking final action on the May 22, 1989 proposal, while the proposed MCLs in today's notice will be promulgated under section 1412, and therefore will not be effective until 18 months after promulgation of the rule taking final action on today's proposal. Early monitoring will allow systems to complete monitoring and analysis by the effective dates of the MCLs. Equally important, however, is the synchronization of the monitoring and analysis requirements in today's proposal and those in the May 22, 1989 proposal. Synchronization of the monitoring requirements for these two proposals is desirable because it would minimize overall sample collection and analysis efforts.

EPA proposes to allow a maximum of 12 months from the effective date of the rule taking final action on today's proposal for public water systems to complete the first round of sampling and analysis and to report the results of such monitoring to the States. EPA also proposes to allow a maximum of 12 months from the effective date of the final regulations for the States to complete vulnerability assessments. EPA requests public comments on the timing of the PWS monitoring and reporting requirements and State vulnerability assessments for the contaminants in today's notice.

EPA is considering reducing the three year quarterly monitoring requirement to one year of quarterly monitoring in situations where initial monitoring shows particularly low levels of detection relative to the levels of concern (i.e., MCLs) or in situations where clean-up activities have resulted in low levels of detection. EPA requests public comments on whether reducing the monitoring frequency is appropriate under these circumstances.

EPA has divided the contaminants in this proposed rule into the following three groups for the purpose of developing proposed monitoring requirements:

Group A—*Six Inorganic Chemicals (IOCs)*

Antimony
Beryllium
Cyanide
Nickel
Sulfate
Thallium

Group B—*Three Volatile Synthetic Organic Chemicals (VOCs)*

Dichloromethane
1,2,4-Trichlorobenzene
1,1,2-Trichloroethane

Group C—*Fifteen Synthetic Organic Chemicals (SOCs): Nine Pesticides and Six Non-Pesticides*

*Pesticides*
Dalapon
Dinoseb
Diquat
Endothall
Endrin
Glyphosate
Oxamyl (Vydate)
Picloram
Simazine

*Non-Pesticides*
Di(ethylhexyl)adipate
Hexachlorobenzene
Hexachlorocyclopentadiene
PAHs [Benzo(a)pyrene]
Di(ethylhexyl)phthalate
2,3,7,8-TCDD (Dioxin)

EPA has separated the contaminants in this proposal into three groups for several reasons. First, different factors, such as sources and mechanisms of contamination, have been considered in the development of requirements for each group. Second, developing monitoring requirements on the basis of these three groups will lead to requirements that are consistent with those already specified or proposed by EPA for other similar groups of drinking water contaminants. Third, this approach would allow States to use recent monitoring data for unregulated contaminants in lieu of new data if the system used reliable analytical methods (e.g., data obtained as a result of section 1445 monitoring requirements for unregulated contaminants; see 52 FR 25709 and 54 FR 22154). Fourth, certain contaminants in each group can be monitored with the same analytical methods, thereby minimizing the amount of sampling and analysis that needs to be performed.

In developing the proposed compliance monitoring requirements for these contaminants, EPA considered: (1) The likely source of contamination of drinking water, (2) the differences between ground water and surface water systems, (3) the collection of samples which are representative of consumer exposure, (4) the economic burden of sample collection and analysis, (5) the use of historical monitoring data to identify vulnerable sources and to specify monitoring requirements for each of the individual systems, (6) the usually limited occurrence of some contaminants, and (7) the need for States to tailor monitoring requirements to site-specific conditions. EPA refers readers to the two previous notices for a discussion of these factors (52 FR 25702 and 54 FR 22124).

EPA desires monitoring requirements which ensure the statutory goal of compliance with the MCLs and efficiently utilize State and utility resources and that are consistent with requirements promulgated previously by EPA. The proposed monitoring program focuses monitoring in individual public water systems to the contaminants that are likely to occur. Systems with water sources deemed vulnerable by States would be required to conduct an initial round of monitoring within a specified time period. Repeat monitoring would be based on the initial vulnerability assessment and also on the findings of the initial monitoring. This proposed approach includes:

- For the volatile SOCs listed in section 141.61(a), allowing States to reduce monitoring frequencies based upon a vulnerability assessment. For the non-volatile SOCs listed in section 141.61(c), requiring only systems with vulnerable water sources to monitor.
- Vulnerability Assessments. The States would classify the water sources as either vulnerable or not vulnerable and would provide the basis for that decision. This would allow States to target monitoring to those systems with sources which are vulnerable to a particular contaminant.
- Allowing the use of recent monitoring data in lieu of new data if the water supplier has conducted a monitoring program using reliable analytical methods.
- Encouraging the States to use historical monitoring data meeting specified quality requirements and other available records to make decisions regarding the system's vulnerability.
- Requiring all vulnerable systems to conduct repeat monitoring unless the system demonstrates that its vulnerability status has changed.
- Designating sampling locations and frequencies that permit simultaneous monitoring for all regulated contaminants, whenever possible.

• Encouraging systems to sample during high vulnerability times for those contaminants whose concentration may fluctuate seasonally (e.g., pesticides).

As discussed above, the proposed monitoring approach relies on vulnerability assessments conducted by the States. EPA believes contaminant-specific determinations (i.e., one vulnerability assessment per contaminant per source) are resource-intensive, posing a burden on the States. Consequently, EPA is proposing several alternatives for the process of making vulnerability decisions. One option involves requiring States to assess the overall hydrogeologic vulnerability to contamination of each water source supplying a PWS instead of making contaminant-specific determinations for each contaminant at each PWS. Another option for conducting vulnerability assessments is to assess the overall use of each contaminant within specific regions, focusing on potential sources of contamination within a defined region. A possible variation on this approach is to require suppliers with sources vulnerable to contamination by a specific contaminant to monitor in addition for other contaminants that are subject to the same analytical technique. This requirement to monitor for all contaminants covered by an analytical technique would allow suppliers to gather additional information on the quality of the water at little or no extra cost. EPA proposes to allow States to conduct either an area-wide assessment or one assessment of the water source for all contaminants.

An alternative approach would be to replace State vulnerability assessments with a requirement that every public water supplier conduct an initial round of monitoring for the contaminants covered in this rule. Under this approach, the frequency of repeat monitoring would be based on the results of the initial round and/or a subsequent State vulnerability assessment. A minimum repeat monitoring frequency would then be established. Water systems could apply for relaxation of the monitoring required under this scenario but would need to provide a basis for their request. States would need to develop guidance and establish criteria for these applications. This approach would alleviate the States' burden of conducting vulnerability assessments but would require them to review and approve the assessments conducted by PWSs and would increase the monitoring requirements for the PWSs.

Public comments are requested on the process for making vulnerability decisions, especially on the following issues:

• Should vulnerability assessments be conducted area-wide, for each source, or per contaminant per source?

• If a water source is vulnerable to one contaminant, should the supplier be required to monitor for all contaminants that may be determined using the same analytical technique?

• Should all suppliers conduct one initial round of monitoring in lieu of a State-conducted vulnerability assessment?

A summary of the proposed compliance monitoring requirements for the contaminants in this rule is given below. EPA refers readers to 52 FR 25690 and 54 FR 22124 for additional background information on the development of the monitoring requirements for IOCs and SOCs. Any changes made to the monitoring requirements in the May 22, 1989 proposal as a result of public comments would likely affect the final requirements for the contaminants in today's proposal. Since the Agency's goal is to standardize the monitoring requirements for all the regulations to facilitate implementation, monitoring issues that are resolved as part of the promulgation of the May 22, 1989 proposal may also be adopted for today's proposal.

*B. Proposed Monitoring Requirements for IOCs:* (Antimony, Beryllium, Cyanide, Nickel, Sulfate and Thallium)

EPA proposes monitoring requirements for antimony, beryllium, cyanide, nickel, sulfate and thallium. EPA believes that the inorganic contaminant sampling and analytical costs are reasonable and that sufficient analytical capability exists to analyze all inorganic contaminants in this proposed rule.

As mentioned earlier, the MCLs and the monitoring requirements in today's notice would apply to community (CWS) and non-transient, non-community water systems. EPA requests comments on whether the MCL for sulfate and the associated monitoring requirements should also apply to transient, non-community water systems since this contaminant is associated with acute effects.

1. Dates for Completion of Initial Monitoring

Under section 1412 of the SDWA, the MCLs in today's proposal will not become effective until 18 months after promulgation. Effective 30 days after promulgation, the monitoring requirements contained in the final rule will be in effect for all inorganics. Under this proposal, community water systems are required to complete the initial round of monitoring and report the results to the State within 30 months of promulgation; non-transient, non-community water systems must complete the initial round of monitoring and report the results to the State within four years of promulgation. Since virtually all non-community water systems are small systems serving less than 3,300 persons, this proposal is consistent with previous EPA proposals to phase-in monitoring requirements based on system size. EPA requests comment on this approach allowing non-transient, non-community water systems four years to complete inorganics monitoring.

2. Sampling Location

Under the proposed regulation, surface water systems must sample at points in the distribution system which are representative of each source or at each entry point to the distribution system which is located after any treatment and which is representative of each source. The number of samples will be determined by the number of sources or treatment plants. For ground water systems, sampling must be done at each entry point to the distribution system after treatment. The number of samples a system must take will be determined by the number of entry points. EPA believes this approach will make it easier to pinpoint possible contaminated sources (wells) within a system. In both surface and ground water systems, the proposed sampling locations are such that the same sampling locations may be used for the collection of samples for other source-related contaminants previously regulated, which simplifies sample collection efforts.

3. Monitoring Frequency

Under this proposed rule, vulnerable ground water systems must monitor every three years and vulnerable surface water systems must monitor annually. The State may reduce the three year and one year monitoring frequencies to no less than every ten years provided: (1) Surface water systems have monitored annually for at least three years and ground water systems have conducted at least three rounds of monitoring; and (2) all previous analytical results are less than 50 percent of the MCL. Systems using a new water source are not eligible for reduced monitoring until three rounds of monitoring from the new source are completed. States should base their decision on the reduced monitoring frequency for each system on consideration of historical analytical

results, variations in the historical results, and system changes such as pumping rates or stream flows/characteristics.

EPA is proposing to allow States to reduce the inorganic monitoring frequencies where an adequate baseline of data has been collected because EPA believes that drinking water contamination by most IOCs is highly stable over time. Therefore, those systems that can demonstrate to the State that there is only a remote possibility that the system will exceed the MCL can be allowed to monitor on a less frequent basis.

4. Confirmation Samples

If an analytical result indicates that the contaminant level in a system exceeds the MCL, the proposed rule provides that the State may require the system to take a confirmation sample. The confirmation sample must be taken within two weeks after the system is notified of the analytical results and must be taken at the same sampling point as the original sample.

5. Compliance Determination

The procedure for determining compliance with the MCLs for the IOCs is proposed to be the same as described in 54 FR 22127–28. No changes to this procedure are proposed in today's notice.

*C. Proposed Monitoring Requirements for VOCs:* (Dichloromethane, 1,2,4-Trichlorobenzene and 1,1,2-Trichloroethane).

EPA proposes that the compliance monitoring requirements for the three VOCs be identical to the monitoring requirements described in 54 FR 22128–29 for VOCs. These requirements are also identical to the monitoring requirements established for eight other regulated VOCs (see 52 FR 25690). EPA believes that this is the most effective way to implement this regulation since the factors affecting the potential for contamination of drinking water are the same, the analytical methods required are the same, and the addition of these three VOCs to the list of VOCs already regulated will only increase monitoring costs slightly.

A summary of the proposed monitoring requirements for the determination of compliance with MCLs for the VOCs are as follows:

• All systems must conduct an initial round of monitoring at least once over the four-year period following promulgation. Monitoring will be phased in based on the system size as follows:

| System size | Monitoring to begin within |
|---|---|
| >10,000 persons served. | 18 months of promulgation. |
| 3,300–10,000 persons served. | 30 months of promulgation. |
| <3,300 persons served .. | 42 months of promulgation. |

• Ground water systems must sample at each entry point to the distribution system after any treatment. The minimum number of samples for ground water systems is one sample at each entry point to the distribution system, per quarter for one year. However, if a system is determined not to be vulnerable (see 50 FR 46902, November 13, 1985, and 52 FR 25690, July 8, 1987, for guidance on defining vulnerability) and the first quarterly sample does not detect VOCs, States have the discretion to reduce the initial sampling from 4 quarterly samples to that one sampling round. The total number of samples which must be analyzed may be reduced, at State discretion, by compositing. Up to 5 samples may be composited. If VOCs are detected in the composite, systems must take a follow-up sample at each sampling point which was included in the composite. Readers are referred to 52 FR 25713 for a complete discussion about compositing procedures.

• Surface water systems must sample at points in the distribution system or at all entry points to the distribution system which are located after any treatment and which are representative of each source (called sampling points). Each system must take one sample at each sampling point per quarter for one year. Composite samples from up to five sources are allowed. If VOCs are detected in the composite sample, follow-up monitoring of each sampling point included in the composite sample is required.

• Each laboratory must determine the minimum concentration at which VOCs are detected (i.e., method detection limit (MDL) as defined in Appendix B to part 136). This concentration must be no greater than 0.5 μg/l.

• All systems are required to conduct repeat monitoring every 3 or 5 years (depending upon system size) except for surface water systems that were not vulnerable and did not detect any VOCs in the first round of sampling. (EPA defines the detection level as 0.0005 mg/l.) Systems which detect VOCs in the initial round of sampling or any subsequent round are required to monitor quarterly. The repeat monitoring frequency is based on prior monitoring results, system vulnerability and system size.

SCHEDULE OF REPEAT MONITORING REQUIREMENT

| Status | Ground Water | Surface Water [1] |
|---|---|---|
| VOCs not detected [2] and not vulnerable. | Repeat every 5 years. | State discretion. |
| VOCs not detected and vulnerable: | | |
| Systems >500 connections. | Repeat at least every 3 years. | Repeat at least every 3 years. |
| Systems <500 connections. | Repeat at least every 5 years. | Repeat at least every 5 years. |
| VOCs detected. | Quarterly ..... | Quarterly. |

[1] Surface water systems sample during four consecutive quarters.
[2] Detected μ242 0.0005 mg/l.

• States have discretion to:
—require confirmation samples for positive results.
—reduce the repeat monitoring requirements for systems detecting VOCs but at levels consistently less than 50 percent of the MCL. The reduction can be from quarterly sampling to no less than annually after no less than one year of quarterly monitoring is completed.
—allow the use of previous monitoring data of acceptable quality in lieu of new data to satisfy the initial monitoring requirement if the system is not vulnerable.

• MCL compliance is based upon a running annual average of quarterly samples at each sampling point (i.e., the previous four quarterly samples). If the annual average for any sampling point is above the MCL, the entire system is out of compliance, and public notification of the system's customers is required.

• If monitoring is conducted annually or less frequently and if the State reduces the initial quarterly monitoring requirement to one sample, then the compliance determination is based upon that one sample.

D. *Proposed Monitoring Requirements for Nine Pesticides:* (Dalapon, Dinoseb, Diquat, Endothall, Endrin, Glyphosate, Picloram, Simazine and Oxamyl) *and Six Non-Pesticide SOCs* (Di(ethylhexyl)adipate, Hexachlorobenzene, Hexachlorocyclopentadiene, PAHs [Benzo(a)pyrene], Di(ethylhexyl)phthalate, and 2,3,7,8-TCDD)

EPA proposes that the compliance monitoring requirements for these 15

SOCs be identical to the requirements described for SOCs in the May 22, 1989 proposal (see 54 FR 22129–31). In order to ensure that monitoring costs are reasonable, the proposed monitoring requirements target public water systems which are vulnerable to contamination. EPA believes that the States are in the best position to assess a system's vulnerability based on available information such as local pesticide use and nearby industrial discharges. This May 1989 proposal discussed three monitoring options considered by EPA. The options were: (1) Whether the monitoring requirements should only apply to the vulnerable systems, (2) whether EPA should require all systems to conduct at least one round of monitoring (unless the State waives the requirement on a case-by-case basis), or (3) whether vulnerable ground water systems should take a minimum of a single quarterly sample during the period of highest vulnerability. Monitoring for surface water systems would still require four quarterly samples. Under Option 3, if no contaminants were detected in this initial sample, additional monitoring would not be required. EPA proposed Option 1 in the May 1989 proposal (requiring only vulnerable systems to monitor at least quarterly for one year during the initial four years). Today's proposal includes monitoring requirements which are identical to those in 54 FR 22129 for the nine pesticide and six non-pesticide SOCs, with one exception, which is discussed below. EPA believes this option provides the greatest opportunity for States to target monitoring to those areas where problems are likely to occur.

The only difference in the monitoring requirements for SOCs being proposed today from the monitoring requirements proposed in 54 FR 22129 concerns the sampling strategy for PAHs. Today's proposal relates primarily to contaminants that enter drinking water due to the contamination of source waters. However, in the case of PAHs, contamination may occur due to the leaching of materials in the water delivery system (i.e., distribution system pipe materials, storage tanks). Today's notice includes a proposed MCLG and MCL for the PAH benzo (a) pyrene (BaP). EPA is also considering setting MCLGs and MCLs for six other carcinogenic PAHs, as discussed above. Monitoring requirements for these six additional PAHs would be the same as described here for BaP.

There is a large number of different PAHs that can potentially be contributed from coal tar and asphaltic linings and no single compound or group of compounds is an absolute measure of PAH contribution from asphalt and coal tar linings. The World Health Organization recommended against the use of coal tar based pipe linings in drinking water as early as 1984. At the present time, EPA does not have sufficient information on the frequency of use of coal tar linings, the levels of PAHs leaching from these linings, and on the feasibility of alternatives to the use of coal tar (e.g., plastic) and the cost of those alternatives. If additional data indicate that it is cost effective to discontinue the use of coal tar linings, EPA may recommend no further use of these linings in the future. To assist the Agency in making this decision, EPA requests any information available on the present use of coal tar linings, the levels of PAHs leaching from these linings, and on any other alternatives to coal tar and the costs of those alternatives.

EPA does not believe it is necessary to remove coal tar and asphalt linings already in place. Available data indicate that the levels of PAHs in these linings are expected to deplete with the age of the lining and, therefore, they are not expected to pose as much of a health threat as new linings. The Agency also recognizes that it is impractical and economically not feasible to remove all existing linings. Monitoring at the tap would help determine whether additional control measures are necessary for systems.

Within the framework of its drinking water additives advisory program, EPA has in the past issued favorable advisories on many coal tar and asphaltic linings for use in drinking water systems. Although the linings were originally accepted 15–20 years ago when information on their potential health hazards was non-existent, numerous products have been accepted since then because they were virtually identical to or were repackings of originally acceptable products. The Agency terminated the Federal advisory program on October 4, 1988 (as announced in 53 FR 25586 on July 7, 1988). All advisories issued under this program, including those on coal tar and asphalt linings, expired on April 7, 1990.

Since other PAHs may be present in drinking water in the absence of BaP (and the other six carcinogenic PAHs considered for regulation in this notice), EPA is proposing that two other PAHs that occur relatively frequent in drinking water but that may not present a significant health risk should be monitored for. Naphthalene and fluoranthene are the two other compounds. These two compounds are especially susceptible to leaching from coal-tar-lined distribution systems. This approach would be consistent with the World Health Organization (WHO) guidelines, which recommend the use of specific compounds (such as fluoranthene) as an index of pollution by the whole group of PAH compounds. Under the proposed approach, systems that detect fluoranthene and/or naphthalene will continue to be deemed vulnerable to PAH contamination. Therefore, EPA is proposing today to set monitoring requirements for fluoranthene and naphthalene to determine a system's vulnerability to PAH contamination and, thus, monitoring frequency, even though EPA does not propose to set NPDWR requirements covering these two compounds specifically. If one or both of these compounds is found to be present, the system would then need to monitor for BaP (and the other carcinogenic PAHs in this notice if they are regulated).

Public comments are requested on the following issues:

- Should other PAHs that occur frequently in drinking water but do not present significant health risks, such as fluoranthene and naphthalene, be used as indicators of the potential presence of carcinogenic PAHs?
- Should EPA require that sampling for PAHs be conducted at the tap when contamination may be due to the presence of coal tar in the distribution system?
- Should monitoring for PAHs be at State discretion if the State bans the use of coal tar in the distribution system and storage tanks?

*Summary of Proposed Monitoring Requirements for the SOCs.* The proposed monitoring requirements for the determination of compliance with MCLs for the SOCs are:

- Monitoring will be phased in over four years. Vulnerable systems (as determined by the State) must monitor quarterly for one year during the initial four years.
- Each State will determine which systems are vulnerable within 30 months after promulgation of the final rule after considering factors that influence vulnerability described in Appendix B to the May 22, 1989 proposal (54 FR 22140). EPA will provide general procedures that the States may use to conduct vulnerability assessments in a guidance document.
- Systems which detect SOCs remain vulnerable to the contaminants detected for a minimum of three years. After

three years the State can reclassify the system based upon a new assessment.

• Vulnerable ground water systems must take a minimum of one sample at each entry point to the distribution system which is representative of each well after treatment. For systems that are vulnerable to PAHs due to potential leaching from coal tar lined pipes in the distribution system, samples must be taken at the tap. For the initial round of monitoring, each system must sample quarterly for one year.

• Surface water systems must sample at points in the distribution system that are representative of each source or at each entry point to the distribution system which is located after any treatment. For systems that are vulnerable to PAHs due to potential leaching from coal tar lined pipes in the distribution system, samples must be taken at the tap. For the initial round, each system must monitor quarterly for one year.

• The State may reduce the total number of samples by allowing use of composite samples from up to five entry points if the composite reflects the system's normal operating characteristics (i.e., if the composite is representative of each well that is operating). If contamination is detected in a composite, follow-up sampling is required at each entry point included in the composite.

• The repeat monitoring frequency for vulnerable systems is as follows:

FREQUENCY OF REPEAT MONITORING FOR SOCs (VULNERABLE SYSTEMS ONLY)

| Status | Ground water | Surface water |
|---|---|---|
| SOCs are not detected:[2] | | |
| Systems >500 connections. | Repeat every 3 years.[2]. | Repeat every 3 years.[1] |
| Systems <500 connections. | Repeat every 5 years.[2]. | Repeat every 5 years.[1] |
| SOCs detected:[3] | | |
| Systems <500 connections. | Quarterly | Quarterly. |
| Systems <500 connections. | Annually | Annually. |

[1] Must sample for four consecutive quarters.

[2] Only one sample for each source required for ground water systems where the water quality is not directly influenced by surface water; otherwise, quarterly sampling for one year is required. Since greater fluctuations in concentration are more likely to occur in surface water systems (and groundwater systems directly influenced by surface water) such systems must monitor more frequently during the monitoring period.

[3] Detection ± the MDL as defined in Table 7.

• Surface water systems should, whenever feasible, monitor during periods of highest vulnerability (e.g., after rain and application of pesticides).

• States have the discretion to:

—require confirmation samples for positive results.

—reduce the repeat monitoring requirements for systems >500 service connections which detect a contaminant but at levels consistently less than 50 percent of the MCL. The reduction from quarterly to annually is allowed after at least one year of quarterly monitoring is completed.

—reduce the monitoring frequency for vulnerable groundwater systems which do not detect SOCs from annually to every three years after three years of annual sampling is completed.

—allow the use of monitoring data collected recently (within 3 years for systems with more than 500 connections and within 5 years for systems with 500 connections or less), in lieu of new data for the initial sample provided the data are of acceptable quality and provide information equivalent to that required in the proposed rule.

• The determination of compliance with the MCLs for the SOCs is as follows:

—For those systems which monitor quarterly (or more frequently), compliance with the MCL is based upon a running annual average of samples at each sampling location (e.g., the previous four quarterly samples). If the annual average at any sampling location is above the MCL, the system is out of compliance and public notification of the system's customers is required. For systems which monitor annually or less frequently, compliance with the MCL is based upon one sample. If a confirmation sample is required, the determination of compliance is based on the average of the two samples.

—If any one quarterly sample causes the annual average to be exceeded, the system is out of compliance immediately. For example, if the sample exceeded four times the MCL, the system would be out of compliance immediately. The intent of this provision is to provide early notification of potential health risks to consumers.

Public comments are requested on all aspects of the proposed monitoring requirements for IOCs, VOCs, and SOCs. EPA specifically requests comments on the following issues:

• Should the monitoring requirements for SOCs apply only to systems with vulnerable water sources or should all suppliers conduct at least one initial round of monitoring?

• Are the sampling locations, number of samples per system and sampling frequency unnecessary, adequate or insufficient to measure drinking water quality?

• Should the initial sampling be reduced from 4 quarterly samples to one sample for vulnerable ground water systems that do not detect VOCs in the first quarterly sample automatically, at State discretion, or not at all?

• Should States have the discretion to require that systems detecting VOCs or SOCs consistently below the MCL monitor for 4 or more quarters (instead of a minimum of three years of quarterly monitoring previously proposed) before a reduction in monitoring frequency is allowed?

• Should the sampling frequency be different for small systems (i.e., less frequent monitoring for systems with <500 connections)?

• Are the proposed requirements affordable by public water systems, especially small systems?

• Is the active role of the States to determine each system's vulnerability and the repeat monitoring frequencies a reasonable burden and expectation?

• Should EPA allow systems to composite samples without State approval?

• Should EPA require States to conduct periodic vulnerability assessments (e.g., every 3 or 5 years)?

### *E. Rounding of Analytical Results for Compliance Determination*

The rounding procedure to be followed in determining compliance with the revised regulations is proposed to be the same as described in 54 FR 22126. No changes to this procedure are proposed in today's notice.

## VII. Laboratory Approval

EPA recognizes that the effectiveness of the proposed regulations is dependent upon the ability of laboratories to reliably analyze contaminants at relatively low levels. The existing drinking water laboratory certification program (LCP) established by EPA requires that only approved laboratories may analyze compliance samples.

The LCP uses external checks of performance to evaluate a laboratory's ability to analyze samples for specific contaminants within specific limits. For this purpose, EPA provides performance evaluation (PE) samples to laboratories on a regular basis; participation in this program is a prerequisite for a laboratory to achieve certification and

to remain certified for analyzing compliance samples. Achieving acceptable performance in these studies of known test samples provides some indication that the laboratory is following proper practices. Unacceptable performance may be indicative of problems that could impact on the reliability of the compliance data.

Unacceptable performance should trigger an investigation to establish the possible cause(s) and to take corrective action. EPA recognizes that even a superior analytical laboratory occasionally produce data which is outside the acceptable limits due to statistical reasons rather than from any actual analytical problems. A provision for rapid follow-up analysis is necessary if a laboratory fails the initial determination to decrease the likelihood of statistical error and to determine if a real problem exists.

EPA's present PE sample program and the approaches used to determine laboratory performance requirements were discussed at 50 FR 46907 (November 13, 1985). Acceptable performance has historically been set by EPA using two different approaches: (1) Regressions from performance of preselected laboratories (using 95 percent confidence limits), or (2) specified accuracy requirements. Acceptance limits based on specified accuracy requirements are developed from existing PE study data. When there is insufficient PE data to determine expected laboratory performance, EPA determines acceptance limits from individual study statistics based upon 95 percent confidence limits. After sufficient performance data are generated from PE studies, EPA will develop fixed acceptance limits using a "plus or minus of the true value approach." These two approaches have been thoroughly discussed in 54 FR 22131–22132.

*A. Inorganic Chemicals*

EPA does not have performance data for antimony, beryllium and thallium at the low levels proposed for regulation. Therefore, until adequate performance data are available to set acceptance limits for these three inorganics, EPA proposes to use regressions to estimate 95 percent confidence limits (i.e., two standard deviations based on study statistics).

Performance data are available for cyanide, nickel and sulfate at the levels proposed for regulation. The acceptance limits are estimated using the approach described in 54 FR 22132, resulting in limits approximately equal to the 95 percent confidence limits.

The acceptance limits for the IOCs are summarized below:

| Contaminant | Acceptance limits |
|---|---|
| Antimony | Two standard deviations based on study statistics. |
| Beryllium | Two standard deviations based on study statistics. |
| Cyanide | ±30%. |
| Nickel | ±15%. |
| Sulfate | ±15%. |
| Thallium | Two standard deviations based on study statistics. |

The acceptance limits only apply to concentrations above the PQL.

Public comments are requested on the acceptance limits for the inorganics.

*B. Synthetic Organic Chemicals*

1. Volatile Organic Chemicals

The proposed performance requirements are the same as the performance requirements established for the eight VOCs promulgated July 8, 1987, since laboratory performance expected for the three VOCs in today's notice is similar to the performance achievable for the eight regulated VOCs. Some recent Water Supply (WS) study data for the three VOCs in today's notice are summarized in Table 16. A review of these data indicates that the acceptance limits of ±40 percent for concentrations <10 μg/l and ±20 percent at >10 μg/l are reasonable since about 71–97 percent of the EPA and State laboratories were within these limits. Therefore, EPA proposes to use these acceptance limits for the VOCs in this notice.

TABLE 16.—PERFORMANCE OF EPA AND STATE LABORATORIES ANALYZING VOCS IN WATER SUPPLY PERFORMANCE EVALUATION STUDIES

| Compound | T.V.[1] (μg/l) | No. of labs | Percent labs within ±20% T.V.[1] | Percent labs within ±40% T.V.[1] |
|---|---|---|---|---|
| Dichloromethane | 2.8 | 47 | — | 82 |
| | 8.24 | 34 | — | 97 |
| | 12.0 | 42 | 71 | — |
| 1,2,4-Trichlorobenzene | 18.4 | 20 | 75 | — |
| 1,1,2-Trichloroethane | 10.2 | 37 | 81 | — |
| | 12.8 | 40 | 87 | — |

[1] T.V.="True Value".

Public comments are requested on the proposed acceptance limits for the VOCs.

2. Other Synthetic Organic Chemicals

There are no performance evaluation study data for these contaminants at the present time because the analytical methods were only recently developed. Therefore, specified accuracy requirements for laboratory performance cannot be established until more information is available on the actual performance of these methods at different analytical laboratories. In the interim, these contaminants will be based on acceptance limits generated from individual study statistics using two standard deviations (i.e., 95 percent confidence limits). EPA will collect performance data from future PE studies and then develop fixed acceptance limits based on a plus or minus percent of the true value.

Public comments are requested on the use of two standard deviations to determine acceptance limits for these contaminants.

## VIII. State Implementation

The Safe Drinking Water Act provides that States may assume primary implementation and enforcement responsibilities for the PWS program (primacy). 40 CFR part 142 contains EPA's primacy regulations. EPA promulgated amendments to part 142 on December 20, 1989 (54 FR 52126).

Today, EPA is proposing changes to State recordkeeping and reporting requirements and is proposing that States submit their policies and

procedures regarding the determination of systems' vulnerability and monitoring frequency. The proposed requirements are the same as those in the May 22, 1989 proposal (see 54 FR 22135–36), except as described below. EPA believes that these additional requirements are necessary for effective oversight of State programs.

The requirements in today's proposal that differ from those in the May 22, 1989 proposal are: (1) A proposed revision to the recordkeeping requirements which would require the States to retain records of analyses for chemical contaminants for no less than 10 years (instead of the present requirement to keep records for no less than 40 years), (2) a requirement to keep records of the most recent vulnerability assessment, and (3) a requirement to make available to EPA, upon request, the basis for the State's classification of a system as vulnerable or not vulnerable and the basis for the State's decisions regarding reduced monitoring frequencies. These requirements will apply to the contaminants covered in today's proposal. Public comments are requested on these proposed requirements.

Also, at 54 FR 22136–7, EPA solicited comments on whether the contaminant source assessments conducted under State Wellhead Protection Programs (see section 1428 of the SDWA), could be used for the vulnerability assessments used to determine monitoring frequencies and what the relationship of the two assessments should be. As part of today's notice, EPA solicits public comment on this issue as it applies to today's proposed rule.

## IX. System Reporting Requirements

The current regulations, 40 CFR 141.32, require public water systems to report monitoring data to States within ten days after the end of the compliance period. No changes are proposed to those requirements.

## X. Public Notice Requirements

The current regulations, 40 CFR 141.32, require that each owner or operator of a public water system give notice to persons served by it when a violation of an MCL, treatment technique or variance or exemption schedule occurs. The regulations were revised on October 28, 1987 (52 FR 41534) to require that each notice contain health effects language specified by EPA which concisely and in non-technical terms conveys to the public the adverse health effects that may occur as a result of the violation. States and water utilities are free to add additional information to each notice, as deemed appropriate for specific situations. This proposed rule contains specific health effects language in § 141.32(e) for the contaminants which are in today's proposed rulemaking. Public comment is requested on the proposed language.

## XI. Executive Order 12291

Under Executive Order 12291, EPA must judge whether a regulation is "major" and, therefore, subject to the requirements of a Regulatory Impact Analysis. A rule is considered "major" if it is expected to cause:

(1) An annual effect on the economy of $100 million or more;

(2) A major increase in costs or prices for consumers, individual industries, Federal, state, or local government agencies, or geographic regions; or

(3) Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

Based on the economic impact analysis EPA has prepared for this proposed rule, the Agency has determined that the proposed regulations constitute a major rule. If the Agency decides to promulgate some of the less stringent options being considered in this proposal, the final rule may be classified as "minor."

The report titled, "Economic Impact Analysis of Proposed National Drinking Water Standards for Inorganic and Synthetic Organic Chemicals," April 1990, presents a detailed description of the methodology and results of the economic impact analysis for this proposed rule. In addition, the report presents a detailed cost analysis of alternative MCLs for sulfate. Finally, the report includes analyses required by the Regulatory Flexibility Act, the Paperwork Reduction Act, and the Federalism Executive Order. The following discussion provides a summary of the methodology and findings of this economic impact analysis.

In order to estimate the economic impacts, the analysis used the following data, where available, for each of the 24 contaminants:

- Occurrence data to determine the number of systems violating MCLs;
- Treatment cost data and treatment selection probabilities to estimate the system level and aggregate costs of achieving the proposed MCLs; and
- Monitoring costs to estimate the aggregate costs of the monitoring requirements.

Chemical specific data were not always available. In such cases the analysis used assumptions based on representative chemicals.

The Agency is proposing two alternative MCL options of 400 mg/l and 500 mg/l for sulfate. Approximately 1,397 community and non-community/non-transient water systems are estimated to exceed the proposed standards for IOCs if the proposed MCL of 400 mg/l for sulfate is promulgated. The national cost of treatment for these systems to comply with the proposed IOC standards is expected to be about $70 million per year. Sulfate accounts for 78% of the affected population and 96% of the treatment costs for inorganics. Antimony, beryllium and nickel contribute the remaining impacts, while cyanide and thallium are never expected to occur at levels which exceed the proposed MCLs.

Alternatively, if the proposed MCL of 500 mg/l for sulfate is promulgated, approximately 795 community and non-community/non-transient water systems are estimated to exceed the proposed standards for IOCs. The national cost of treatment for these systems to comply with the proposed IOC standards is expected to be about $33 million per year.

In addition, 900 community and non-community/non-transient water systems are estimated to exceed the proposed standards for 11 of the 18 SOCs. Due to the absence of national survey data for most of these contaminants, this estimate is based on the occurrence rate found for SOCs previously addressed in the proposed standards published in 54 FR 22062. The national cost of treatment for these systems to comply with today's proposed SOC standards is expected to be about $11 million per year. Occurrence data for the remaining seven SOCs was adequate for determining that these contaminants are never expected to occur at levels which exceed the proposed MCLs.

Finally, the monitoring requirements in this proposal are estimated to cost the nation approximately $6 million per year. In general, the monitoring costs for this proposal have been significantly minimized as a result of monitoring requirements established in the proposed standards published in 54 FR 22124 which will also apply directly and indirectly to many of the SOCs addressed by this proposal. The Information Collection Request report supporting today's proposed rule provides a detailed description of the methodology used to estimate these monitoring costs.

Table 17 presents a summary of the national costs estimated in the economic impact analysis. As shown, the total annualized cost of the entire proposal is about $87 million a year (or $50 million per year if the alternative MCL of 500 mg/l for sulfate is adopted). Seventy seven percent of the total cost is due to sulfates. Seventy-seven percent of the systems exceeding the sulfate MCL are expected to be small systems serving fewer than 500 persons. An assessment of the net benefits associated with the alternative sulfate MCLs was also conducted. The findings of this analysis suggest that compliance with any of the alternative MCLs will not achieve positive net benefits for the nation. However, at the system level the benefits of the proposed MCLs of 400 mg/l and 500 mg/l are generally comparable to the costs at the larger system sizes. In contrast, the costs for systems serving fewer than 500 persons greatly exceed the estimated benefits. The Agency believes that many of these small systems will be granted exemptions due to the large cost of treatment technology for the removal of sulfate. Therefore, it is anticipated that the actual cost of the proposed rule will be lower than the estimated $87 million a year for the 400 mg/l sulfate MCL option or $50 million per year for the 500 mg/l sulfate MCL option.

TABLE 17.—SUMMARY OF COSTS OF PROPOSED STANDARDS FOR SOCS AND IOCS

| Chemical | Number systems affected | Annualized total cost ($M/yr) |
|---|---|---|
| Sulfate (400 mg/l) [1] | 1,087 | 67 |
| Antimony, Beryllium, Nickel | 310 | 3 |
| Adipates, Hexachlorobenzene, Hexachlorocyclopentadiene, Phthalates, 1,1,2-Trichloroethane, Dinoseb Diquat, Endothall, Glyphosate, Dichloromethane, 2,3,7,8-TCDD | 900 | 11 |
| Thallium, Cyanide, Endrin, PAHs, 1,2,4-Trichlorobenzene, Dalapon, Picloram, Simazine, Oxamyl | 0 | 0 |
| Treatment costs | 2,297 | $81 |
| Monitoring costs | | $6 |
| National annualized cost ($M/yr) | | $87 |

[1] An alternative MCL of 500 mg/l for sulfate could reduce the total annualized cost by $37M/yr if promulgated.

Although EPA is proposing alternative MCLs of 400 mg/l and 500 mg/l for sulfate, more stringent MCLGs (and MCLs) were considered. In today's notice, EPA is requesting public comments on the appropriateness of the other levels considered (200 mg/l and 300 mg/l) or of other less stringent levels. The number of systems affected and the annual costs (in millions $) for each of the alternative sulfate MCLs have been estimated as given below.

| MCL (mg/l): | 200 | 300 | 400 | 500 |
|---|---|---|---|---|
| Number of systems affected | 3,880 | 1,699 | 1,087 | 485 |
| Annual costs ($M/yr) | $322 | $134 | $67 | $30 |

The proposed rule does not include transient non-community water systems as explained in Section IV of today's proposal. However, the Agency is requesting public comment on whether the MCL should be applicable to these systems. If transient systems were included, an additional 120,000 systems would be subject to the sulfate regulation. EPA estimates approximately 2,267 transient systems would exceed the proposed MCL of 400 mg/l. These additional systems are estimated to increase the total national annualized cost by $79 million/year from $87 million/year to $166 million/year. In comparison, EPA estimates approximately 1,010 transient systems would exceed the proposed MCL of 500 mg/l. These additional systems are estimated to increase the total national annualized cost by $35 million/year from $50 million/year to $85 million/year. As with other small systems, most transient systems could not afford the high cost of treatment to remove sulfate. Therefore, EPA believes that many of these systems would also get exemptions, and the actual costs would be much lower than the estimated costs.

The cost impacts on water systems and consumers affected by most of the SOCs and IOCs in today's proposal are small and vary depending upon the specific contaminant and the size of the public water system. Households served by large to very large water systems (those serving more than 3,300 people) could be subject to water bill increases of as much as $40 per year, if their systems have SOC contamination greater than the proposed MCLs. On the other hand, the costs associated with sulfate contamination are greater due to the high costs of BATs for this contaminant. These same systems could be subject to water bill increases of between $142 and $280 per year if their systems have sulfate contamination greater than the proposed MCL.

Small systems, those serving fewer than 500 people, incur higher per household costs because they do not benefit from engineering economies of scale. Households served by a small system would have to pay significantly more should the system have SOC or IOC contamination greater than the proposed MCLs. In the case of SOCs, typical annual water bills could increase by as much as $650. In the case of IOCs, annual water bills in small systems could climb an additional $1,750 at sulfate-contaminated systems. These high costs for small systems raise serious questions as to whether reverse osmosis and ion exchange are economically achievable for these systems and, if not, whether it would be appropriate to conclude that there is no technology at all that would qualify as BAT for purposes of issuing variances to small systems. As discussed in Section V above, EPA is soliciting comments on whether these costs for small systems are affordable for the purpose of issuing variances to small systems under section 1415 of the SDWA.

The proposed standards are not expected to cause major cost or price increases or major industry dislocation because the MCLs are set based on what may reasonably be afforded by large or regional public water systems. Small systems may be granted exemptions from the MCLs based on compelling factors, including economic factors, or may be granted variances from the MCLs as long as the system applies the best available technology, which EPA determines by taking cost into account. Therefore, the impacts of the standards are constrained by cost and price increases on the public water system and, as a result, the consumer. Although protection of human health may require some systems to incur significant costs which may increase their prices to consumers, the number of such systems is expected to be small given the low levels of occurrence for most of the contaminants.

*A. Regulatory Flexibility Act*

The Regulatory Flexibility Act requires EPA to consider the effect of regulations on small entities [5 U.S.C. 602 *et seq.*]. If there is a significant effect on a substantial number of small systems, the Agency must prepare a Regulatory Flexibility Analysis which describes significant alternatives which would minimize the impact on small entities. EPA has determined that the proposed rule, if promulgated, will not have a significant effect on a substantial number of small entities. Therefore, a Regulatory Flexibility Analysis need not be prepared.

Using the Small Business Administration's definition, a small water utility is one that serves fewer

than 50,000 people. There are about 78,000 such systems in the nation. Previous SOC and IOC regulations covering 38 contaminants (54 FR 22062) have affected less than three percent of small systems, which the Agency believes does not constitute a substantial number of small systems. Today's proposed rule covers fewer (i.e., 24) SOCs and IOCs, and these compounds occur less frequently than the previously regulated SOCs and IOCs. The Agency therefore believes that today's proposal will affect even fewer small systems than would be affected by the previous proposed rule. However, it is possible that today's action will have a substantial impact on a few small systems if SOCs and IOCs are found at levels greater than the MCLs.

Even though a Regulatory Flexibility Analysis need not be prepared for this proposed rule, the Agency is concerned about potential impacts on small systems. Therefore, this proposed rule seeks to minimize such impacts in many respects. Specifically, the proposed rule allows compositing of samples in order to reduce analytical costs. Also, the Agency has allowed bottled water and point-of-use devices as conditions of receiving a variance or exemption to accommodate the needs of smaller systems with limited resources (even though decentralized treatment does not conform to the Agency's long-term goal of centralized treatment).

The Agency has also given the states discretion to reduce monitoring frequency in accordance with a system's findings of no SOCs or IOCs and its vulnerability status. Consequently, smaller systems which do not have IOC or SOC contamination in their water supply and are not located in a vulnerable area may have to monitor only infrequently. EPA has also sought to reduce the burden of compliance monitoring by allowing smaller systems more time to complete the initial round of monitoring for VOCs and by requiring less frequent monitoring for SOCs for the smallest size systems.

*B. Paperwork Reduction Act*

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act*, 44 U.S.C. 3501 *et seq.* An Information Collection Request document has been prepared by EPA (ICR No. 270.18) and a copy may be obtained from Harold Woodley, Information Policy Branch; EPA; 401 M Street SW. (PM–223); Washington, DC 20460 or by calling (202) 382–2738.

Public reporting burden for this collection of information is estimated to average 0.5 hours per response, including time for reviewing instructions, searching data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. (The estimate of 10 hours per response shown in the Information Collection Request is a cumulative figure which includes ongoing information collection under the Public Water System Program Information ICR in association with other rules.)

Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM–223, U.S. Environmental Protection Agency, 401 M Street SW., Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503, marked "Attention: Desk Officer for EPA." The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

## XII. Secondary MCL (SMCL)

EPA is proposing one SMCL in this notice based upon odor detection levels for hexachlorocyclopentadiene (HEX). Odor detection for this organic chemical has been reported at levels lower than the proposed MCL of 0.05 mg/l. EPA believes that it is appropriate to set an SMCL for this compound to protect against aesthetic effects (such as odor) which could be present at levels below the proposed MCL.

The proposed SMCL for HEX is 0.008 mg/l (rounded from a threshold of 0.0077 mg/l). This threshold level was calculated by J.E. Amoore and E. Hautala (1983). [Reference: Odor as an Aid to Chemical Safety: Odor Thresholds Compared with Threshold Limit Values and Volatilities for 214 Industrial Chemicals in Air and Water Dilution. Journal of Applied Toxicology 3:6:272–290.]

EPA believes that HEX levels greater than the SMCL of 0.008 mg/l may adversely affect the appearance or odor of drinking water and thereby may cause a substantial number of persons served by the public water system to discontinue their use of its drinking water, or may otherwise affect the public welfare.

EPA requests comments on the proposed SMCL for HEX. In addition, EPA asks that any information that may be available on taste or odor detection levels for other chemicals in this notice be submitted to the Agency.

## XIII. Reference and Public Docket

All supporting materials pertinent to the development of this proposal are included in the Public Docket located at EPA Headquarters, Washington, D.C. The Public Docket is available for viewing by appointment by calling the telephone number at the beginning of this notice. All public comments received on the 1985 proposal are included in the Docket.

The following references are included in the Public Docket together with other correspondence and information. Additional references are cited throughout the preamble of this proposed rule.

(1) For each inorganic and organic chemical for which an MCLG is proposed, a health effects criteria document has been prepared. For example, a typical reference listing would be as follows:

U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Draft Health Effects Criteria Document for Antimony, April, 1990.

(2) U.S. EPA, EMSL-Cincinnati, Methods for the Determination of Organic Compounds in Drinking Water, July, 1990.

(3) U.S. EPA, Office of Drinking Water, Office of Program Development and Evaluation, Economic Impact Analysis of Proposed National Drinking Water Standards for Inorganic and Synthetic Organic Chemicals, April, 1990.

(4) For each inorganic chemical for which an MCLG is proposed, a Technologies and Costs Document has been prepared. For example, a typical reference listing would be as follows:

U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Technologies and Costs for the Removal of Phase V Inorganic Contaminants from Potable Water Supplies. January, 1990.

(5) U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Technologies and Costs for the Removal of Synthetic Organic Chemicals from Potable Water Supplies. Draft. May, 1990.

(6) For each inorganic and organic chemical for which an MCL is proposed, an occurrence document has been prepared. For example, a typical reference listing would be as follows:

U.S. EPA, Office of Drinking Water, Criteria and Standards Division, Occurrence and Exposure Assessment of Antimony in Public Drinking Water Supplies, 1989.

## XIV. Request for Public Comment

Many of the requirements that EPA is proposing in today's notice are the same or generally the same as requirements previously proposed in the Federal Register for 30 SOCs and 8 IOCs (54 FR 22062, May 22, 1989) (e.g., monitoring requirements). However, EPA today is requesting comments on these requirements only insofar as they apply to the contaminants covered in this notice. The comment period for the May 1989 proposal is already closed and EPA is not accepting any further comments on that proposal.

In addition, the proposed implementation provisions in part 142 are also generally the same as those proposed in the May 1989 notice. They are repeated here to ensure clarity. As stated above, EPA is requesting comments only on how these requirements relate to the contaminants in today's notice.

EPA requests public analysis, comments and information on all aspects of today's proposal. In addition to the questions noted earlier, we are also soliciting comment for the following:

- Do the proposed MCLGs represent the levels "at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety"?
- Do the MCLs represent a level as close to the MCLGs as is feasible?

—Is the methodology for determining the MCLs appropriate?
—Are the levels set for the MCLs feasible?
—Are the costs of meeting the MCLs reasonable?

- Should the Agency consider other technologies as BAT in addition to the proposed BATs?
- Are the technologies proposed as BAT for variance purposes (section 1415) appropriate?
- Are the proposed performance requirements reasonable for the purposes of determining laboratory approval?
- Does the proposed mandatory health effects information for the public notification requirements represent a clear statement of the potential health effects of the chemicals?
- Do the proposed compliance monitoring requirements serve the purpose of ensuring that high quality water is available?
- Are there alternative monitoring requirements which would still ensure high quality water but which would be less burdensome for water systems and States?
- Does the proposed SMCL protect against aesthetic effects? Is there additional taste and odor data that could be used to set SMCLs for other chemicals in this notice?

**List of Subjects in 40 CFR Parts 141, 142 and 143.**

Chemicals, Reporting and recordkeeping requirements, Water supply, Administrative practice and procedure.

Dated: June 29, 1990.

**Terry Davies,**

*Acting Administrator.*

For the reasons set forth in the preamble, title 40 of the Code of Federal Regulations is proposed to be amended as follows:

## PART 141—NATIONAL PRIMARY DRINKING WATER REGULATIONS

1. The authority citation for part 141 continues to read as follows:

**Authority:** 42 U.S.C. 300g–1, 300g–3, 300g–6, 300j–4 and 300j–9.

2. Section 141.23, is revised to read as follows:

### § 141.23 Inorganic chemical sampling and analytical requirements.

Community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels specified in § 141.11 or § 141.62 (as appropriate) in accordance with this section. Non-transient, non-community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels in § 142.62 in accordance with this section.

(a) Monitoring shall be conducted as follows:

(1) Ground water systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(2) Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point). The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(3) If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(4) The State may reduce the total number of samples which must be analyzed by allowing the use of compositing. Composite samples from a maximum of five sampling points are allowed. Compositing of samples must be done in the laboratory. If one or more inorganic chemicals are detected in a composite sample, then a follow-up sample must be taken at each sampling point included in the composite and analyzed for the contaminants which were present in the composite sample within 14 days.

(5) The frequency of monitoring for antimony, beryllium, cyanide, nickel, sulfate and thallium shall be in accordance with paragraph (c) of this section.

(b) [Reserved]

(c) The frequency of monitoring conducted to determine compliance with the maximum contaminant levels in § 141.11 or § 141.62 (as appropriate) for antimony, beryllium, cyanide, nickel, sulfate and thallium shall be as follows:

(1) Groundwater systems shall monitor once every three years and surface water systems shall monitor once every year.

(2) The State may reduce the three year and one year monitoring frequencies specified in paragraph (c)(1) of this section to no less than once every ten years provided that surface water systems have monitored annually for at least three years and that groundwater systems have conducted a minimum of three rounds of monitoring and all previous analytical results are $<50$ percent of the maximum contaminant level. Systems that use a new water source are not eligible for reduced monitoring until three rounds of monitoring from the new source have been completed. In determining the appropriate reduced monitoring frequency, the State shall consider:

(i) Reported concentrations from all previous monitoring;

(ii) The degree of variation in reported concentrations; and

(iii) Other factors which may affect contaminant concentrations such as changes in groundwater pumping rates, changes in the system's configuration, changes in the system's operating procedures, or changes in stream flows or characteristics.

(3) The State shall make available to EPA for review, upon request, a list of systems with reduced monitoring

frequencies and the basis for the reduction. The determination of a reduced monitoring frequency may be initiated by the State or upon an application by the public water system. The public water system shall specify the basis for its request. The State shall review and, where appropriate, revise its determination of the appropriate monitoring frequency when the supplier submits new monitoring data or when other data relevant to the system's appropriate monitoring frequency becomes available.

(4) Each community water system shall complete the first round of monitoring required by paragraph (c)(1) of this section and report the results to the State by January 25, 1993.

(5) Each non-transient, non-community water system shall complete the first round of monitoring required by paragraph (c)(1) of this section and report the results to the State by July 25, 1994.

(d)–(e) [Reserved]

(f) Confirmation samples:

(1) Where the results of sampling for antimony, beryllium, cyanide, nickel, sulfate and thallium indicate an exceedance of the maximum contaminant level, the State may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point.

(2) [Reserved]

(3) If a confirmation sample is taken for any contaminant, then the results of the initial and confirmation sample shall be averaged. The resulting average shall be used to determine the system's compliance in accordance with paragraph (h) of this section. States have the discretion to delete results of obvious sampling errors.

(g) The State may require more frequent monitoring than specified in paragraph (c) of this section or may require confirmation samples for positive and negative results at its discretion.

(h) Compliance with § 141.11 or § 141.62(b) (as appropriate) shall be determined based on the analytical result obtained at each sampling point.

(1) For systems which are conducting quarterly (or more frequent) monitoring, compliance with the maximum contaminant levels for antimony, beryllium, cyanide, nickel, sulfate and thallium is determined by an annual average at each sampling point. If the average at any sampling point is greater than the MCL, then the system is out of compliance. If any one sample would cause the annual average to be exceeded, then the system is out of compliance immediately.

(2) For systems which are monitoring annually, or less frequently, the system is out of compliance with the maximum contaminant levels for antimony, beryllium, cyanide, nickel, sulfate and thallium if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the State, the determination of compliance will be based on the average of the two samples.

(3) [Reserved]

(4) If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, only that part of the system that exceeds the MCL as specified in § 141.11 or § 141.62(b) (as appropriate) will be out of compliance. The State may allow the system to give public notice to only that portion of the system which is out of compliance.

(i) The State has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by their sanctioned representatives and agencies.

(j) Inorganic analysis:

(1)–(3) [Reserved]

(4) Analysis for antimony, beryllium, cyanide, nickel, sulfate and thallium shall be conducted using the following methods:

METHODOLOGY FOR INORGANIC CONTAMINANTS

| Contaminant | Methodology [6] | EPA [1] | ASTM [2] | SM [3] | USGS [4] | Other |
|---|---|---|---|---|---|---|
| Antimony | Atomic Absorption; Furnace Technique | 204.2 | | 304 | | |
| | ICP Mass Spectrometry | 200.8 [5] | | | | |
| | Hydride-Atomic Absorption Spectrometry | | D–3697 | | | |
| Beryllium | Atomic Absorption; Furnace Technique | 210.2 | D–3645 | 304 | | |
| | Inductively-Coupled Plasma | 200.7 | | 305 | | |
| | ICP Mass Spectrometry | 200.8 [5] | | | | |
| Nickel | Atomic Absorption; Furnace Technique | 249.2 | | 304 | | |
| | Industively-Coupled Plasma | 200.7 | | 305 | | |
| | ICP Mass Spectrometry | 200.8 [5] | | | | |
| Thallium | Atomic Absorption; Furnace Technique | 279.2 | | | | |
| | ICP Mass Spectrometry | 200.8 [5] | | | | |
| Cyanide | Distillation, Titrimetric | 335.2 | D–2036–82A | 412C | I–3300–84 | |
| | Distillation, Automated, Spectrometric | 335.3 | D–2036–82A | 412D | | |
| Sulfate | Automated, Chloranilate | 375.1 | | 426D | | |
| | Gravimetric | 375.3 | D–516–82A | 426A,B | | 33.107 [7] |
| | Turbidimetric | 375.4 | D–516–82B | 426C | | |
| | Ion Chromatography | 300.0 | D–4327–88 | 429 | | |

[1] "Methods of Chemical Analysis of Water and Wastes," EPA Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268.
[2] Annual Book of ASTM Standards, Vol. 11.01, 1988, American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.
[3] "Standard Methods for the Examination of Water and Wastewater," 16th Edition, American Public Health Association, American Water Works Association, Water Pollution Control Federation, 1985.
[4] Techniques fo Water Resources Investigation of the U.S. Geological Survey, Chapter A–1, "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," Book 5 (1979, Stock #024–001–03177–9).
[5] Method available from U.S. EPA's Environmental Monitoring and Support Laboratory, Cincinnati, OH 45268.
[6] For approved analytical procedures for metals, the technique applicable to total metals must be used.
[7] "Official Methods of Analysis of the AOAC," 16th Edition, Association of Official Analytical Chemists, 1985.

(5) Sample collection for antimony, beryllium, cyanide, nickel, sulfate and thallium under this section shall be conducted using the sample preservation, container, and maximum holding time procedures specified in the table below:

| Contaminant | Preservative [1] | Container [2] | Maximum holding time [3] |
|---|---|---|---|
| Antimony | Conc $HNO_3$ to pH <2. | P or G | 6 months. |
| Beryllium | Conc $HNO_3$ to pH <2. | P or G | 6 months. |
| Cyanide | Cool, 4 °C | P or G | 14 days. |
| Nickel | Conc $HNO_3$ to pH <2. | P or G | 6 months. |
| Sulfate | Cool, 4 °C | P or G | 28 days. |
| Thallium | Conc $HNO_3$ to pH <2. | P or G | 6 months. |

[1] If $HNO_3$ cannot be used because of shipping restrictions, sample may be initially preserved by icing and immediately shipping it to the laboratory. Upon receipt in the laboratory, the sample must be acidified with conc $HNO_3$ to pH <2. At time of analysis, sample container should be thoroughly rinsed with 1:1 $HNO_3$; washings should be added to sample.

[2] P=plastic, hard or soft; G=glass, hard or soft.

[3] In all cases, samples should be analyzed as soon after collection as possible.

(6) Analysis under this section shall only be conducted by laboratories that have received approval by EPA or the State. To receive approval to conduct analyses for antimony, beryllium, cyanide, nickel, sulfate and thallium the laboratory must:

(i) Analyze Performance Evaluation samples which include those substances provided by EPA Environmental Monitoring and Support Laboratory or equivalent samples provided by the State.

(ii) Achieve quantitative results on the analyses that are within the following acceptance limits:

| Contaminant | Acceptance Limit |
|---|---|
| Antimony | Two standard deviations based on study statistics. |
| Beryllium | Two standard deviations based on study statistics. |
| Cyanide | ±30 percent. |
| Nickel | ±15 percent. |
| Sulfate | ±15 percent. |
| Thallium | Two standard deviations based on study statistics. |

3. In § 141.24, paragraphs (a) through (f) are removed and reserved; paragraph (g) introductory text is revised, paragraphs (g)(4) and (g)(8)(i)(B) are revised, and a new paragraph (h) is added to read as follows:

**§ 141.24 Organic chemicals other than total trihalomethanes, sampling and analytical requirements.**

(a)—(f) [Reserved]

(g) Monitoring of the contaminants listed in § 141.61(a) for purposes of determining compliance with the maximum contaminant levels shall be conducted as follows:

(1) * * *

(4) The schedule for monitoring is as follows:

(i) [Reserved]

(ii) For the following contaminants listed in § 141.61(a), (dichloromethane, 1,2,4-trichlorobenzene and 1,1,2-trichloroethane) each community water system and non-transient, non-community water system serving more than 10,000 people shall analyze and report results to the State, distribution or entry-point samples, as appropriate, representing all source waters to begin no later than January 27, 1992. All community water systems and non-transient, non-community water systems serving from 3,300 to 10,000 people shall analyze and report results to the State of all distribution or entry-point samples, as required in this paragraph (g), representing source waters to begin no later than January 25, 1993. All other community and nontransient, non-community water systems shall analyze and report results to the State of all distribution or entry-point samples as required in this paragraph (g) representing all source waters to begin no later than January 25, 1994.

* * * * *

(8) * * *

(i) * * *

(A) * * *

(B) When VOCs are not detected in the first year of quarterly sampling (or any subsequent sample that may be taken) and the system is vulnerable as defined in paragraph (g)(8)(iv) of this section,

(*1*) Monitoring (i.e., one sample) must be repeated every 3 years for systems with more than 500 connections.

(*2*) Monitoring (i.e., one sample) must be repeated every 5 years for systems with 500 or fewer connections.

* * * * *

(h) Analysis of the contaminants listed in § 141.61(c) should be conducted during periods of highest vulnerability (i.e., after rain, application of pesticides, etc.) if feasible, or otherwise quarterly during the monitoring period, as follows:

(1) The State shall determine by January 25, 1993, whether a community or non-transient, non-community water system is vulnerable to one or more of the contaminants listed in § 141.61(c). This shall be determined, at the State's discretion, by considering each contaminant at each source, or by conducting area-wide assessments, or by grouping contaminants by the similarity of the analytical techniques applicable to the contaminants and assessing the system's vulnerability to each group. The assessment shall consider the following factors:

(i) Previous analytical results.

(ii) The proximity of the system to a potential point or non-point source of contamination. Point sources include spills and leaks of chemicals at or near a water treatment facility or at manufacturing, distribution, or storage facilities, or from hazardous and municipal waste landfills and other waste handling or treatment facilities. Non-point sources include the use of pesticides to control insect and weed pests on agricultural areas, forest lands, home and gardens, and other land application uses.

(iii) The environmental persistence of the contaminant.

(iv) How well the water source is protected against contamination due to such factors as depth of the well and the type of soil.

(v) Elevated nitrate levels at the water supply source may indicate contamination by pesticides.

(vi) [Reserved]

(vii) *PAHs.* A system that uses coal tar lined pipes for finished water distribution shall be considered vulnerable to contamination by BaP [plus six other carcinogenic PAHs]. If, after an initial determination of vulnerability based on pipe materials, fluoranthene and/or naphthalene are detected during the initial round of monitoring, the system shall continue to be considered vulnerable to contamination by PAHs.

(2) A system shall become and remain vulnerable to a contaminant listed in § 141.61(c) for a minimum of three years after detection of one or more such contaminants. Additionally, a system shall become and remain vulnerable to PAHs for a minimum of three years if fluoranthene and/or naphthalene are detected. Upon meeting the three year minimum the State may reclassify the system's vulnerability as to the contaminant(s) based upon a revised assessment.

(3) Upon a finding by the State that a system is vulnerable to one or more contaminants listed in § 141.61(c) each community and non-transient, non-community water system so designated shall monitor for the contaminants for which it was found vulnerable every three months for one year and report the results to the State by July 25, 1994.

After the initial monitoring, systems shall monitor in accordance with paragraphs (h) (12) and (13) of this section. Notwithstanding the above, systems classified as vulnerable to PAHs by the State shall monitor only for fluoranthene and naphthalene. If a system finds fluoranthene and/or naphthalene, it must then monitor for BaP [plus six other PAHs listed in preamble section IIIE, if option is adopted] every three months for one year.

(4) A system may request the State to reassess its vulnerability to one or more contaminants listed in § 141.61(c) provided the initial monitoring conducted under paragraph (h)(3) of this section does not detect contamination.

(5) Systems are required to monitor only for contaminants listed in § 141.61(c) to which the system is vulnerable. Systems which are not classified as vulnerable to any contaminants listed in § 141.61(c) are not required to monitor.

(6) Vulnerable ground water systems shall take a minimum of one round of samples at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). Each round of samples must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(7) Vulnerable surface water systems shall take a minimum of one round of samples at points in the distribution system that are representative of each source or at each entry point to the distribution system after treatment (hereafter called a sampling point). Each round of samples must be taken at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(8) If the system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water representative of all sources is being used).

(9) The State may require a confirmation sample for positive or negative results. If a confirmation sample is taken, the confirmation result is averaged with the first sampling result and the average is used for the compliance determination as specified by § 141.24(h)(14). States have discretion to delete results of obvious sampling errors from this calculation.

(10) The State may reduce the total number of samples a system must analyze by allowing the use of compositing. Composite samples from a maximum of five sampling points are allowed. Compositing of samples must be done in the laboratory and analyzed within 14 days of sample collection. If the concentration in the composite sample detects one or more contaminants listed in § 141.61(c), then a follow-up sample must be taken and analyzed within 14 days from each sampling point included in the composite. If duplicates of the original sample taken from each sampling point used in the composite are available, the system may use these instead of resampling. The duplicate must be analyzed and the results reported to the State within 14 days of collection.

(11) For the initial round of sampling each vulnerable community and non-transient, non-community water system shall take a minimum of one sample every three months for one year (i.e., four quarterly samples) at each sampling point and analyze for the contaminants listed in § 141.61(c) to which it is vulnerable.

(12) The repeat monitoring frequency for groundwater systems after the year of initial monitoring is as follows:

(i) When an organic contaminant(s) listed in § 141.61(c) and analyzed by the system is not detected during the initial year of quarterly monitoring or any repeat monitoring required by paragraph (h)(12)(i) of this section, then:

(A) Systems >500 service connections must monitor at each sampling point for the contaminants to which they are vulnerable every 3 years.

(B) Systems <500 service connections must monitor at each sampling point for the contaminants to which they are vulnerable every 5 years.

(ii) When an organic contaminant listed in § 141.62(c) is detected in any sample taken during the first year of monitoring or any subsequent monitoring, then:

(A) Systems >500 service connections must subsequently monitor at each sampling point every 3 months for any contaminant listed in § 141.61(c) to which they are vulnerable. After a system conducts three years of quarterly sampling, the State may allow the system to reduce the monitoring frequency for a contaminant to an annual sample at each sampling point if the concentration of the contaminant in each sample analyzed in the previous 3 years is <50 percent of the MCL for that contaminant.

(B) Systems <500 service connections must monitor annually at each sampling point for 3 years for any contaminants listed in § 141.61(c) to which they are vulnerable. When an organic contaminant listed in § 141.61(c) is not detected during 3 consecutive years of sampling, then the State may reduce the monitoring frequency for that contaminant to every 3 years. States have the discretion to require systems to monitor more frequently at any time.

(13) The repeat monitoring frequency for surface water systems is as follows:

(i) When an organic contaminant listed in § 141.61(c) and analyzed by the system is not detected during the initial year of quarterly monitoring or any repeat monitoring required by paragraph (h)(13)(i) of this section, then:

(A) Systems >500 service connections must monitor quarterly at each sample point for the contaminants to which they are vulnerable for one year every three years.

(B) Systems <500 service connections must monitor quarterly at each sampling point for the contaminants to which they are vulnerable for one year every five years.

(ii) When an organic contaminant(s) listed in § 141.61(c) is detected in any sample taken during the first year of monitoring or any subsequent monitoring, then:

(A) Systems >500 service connections must subsequently monitor at each sampling point every three months for any contaminants listed in § 141.61(c) to which they are vulnerable. After a system conducts three years of quarterly sampling, the State may allow the system to reduce the monitoring frequency for a contaminant to an annual sample at each sampling point if the concentration of the contaminant in each sample analyzed in the previous 3 years is <50 percent of the MCL for this contaminant.

(B) Systems <500 service connections must monitor annually at each sampling point for any contaminant listed in § 141.61(c) to which they are vulnerable. The State has the discretion to require systems to monitor more frequently (i.e., quarterly).

(14) Compliance with § 141.61(c) shall be determined based on the analytical results obtained at each sampling point.

(i) For ground water systems which are conducting quarterly monitoring, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance. If the initial sample or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately.

(ii) For surface water systems which are conducting quarterly or more

frequent monitoring, compliance is determined by a running annual average of all samples taken at each sampling point. If the annual average of any sampling point is greater than the MCL, then the system is out of compliance. If the initial sample or a subsequent sample would cause the annual average to be exceeded, then the system is out of compliance immediately.

(iii) If monitoring is conducted annually, or less frequently, the system is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. If a confirmation sample is required by the State, the determination of compliance will be based on the average of two samples.

(iv) If a public water system has a distribution system separable from other parts of the distribution system with no interconnections, only that part of the system that exceeds the MCL as specified in § 141.61(c) will be out of compliance. The State may allow the system to give public notice to only that portion of the system which is out of compliance.

(15) Analysis for the contaminants listed in § 141.61(c) shall be conducted using the following EPA methods or their equivalent as approved by EPA.

(i) [Reserved]

(ii) Method 505, "Analysis of Organohalide Pesticides and Aroclors in Drinking Water by Microextraction and Gas Chromatography." Method 505 can be used to measure alachlor, atrazine, chlordane, heptachlor, heptachlor epoxide, lindane, methoxychlor, toxaphene, endrin, hexachlorobenzene, hexachlorocyclopentadiene and simazine. Method 505 can be used as a screen for PCBs.

(iii) Method 507, "Determination of Nitrogen- and Phosphorus-Containing Pesticides in Ground Water by Gas Chromatography with a Nitrogen-Phosphorus Detector." Method 507 can be used to measure alachlor, atrazine and simazine.

(iv) Method 508, "Determination of Chlorinated Pesticides in Ground Water by Gas Chromatography with an Electron Capture Detector." Method 508 can be used to measure chlordane, heptachlor, heptachlor epoxide, lindane, methoxychlor, endrin, hexachlorobenzene and hexachlorocyclopentadiene.

(v) [Reserved]

(vi) Method 515.1, "Determination of Chlorinated Acids in Ground Water by Gas Chromatography with an Electron Capture Detector." Method 515.1 can be used to measure 2,4-D, 2,4,5-TP (Silvex), pentachlorophenol, dalapon, dinoseb and picloram.

(vii) Method 531.1, "Measurement of N-Methyl Carbamoyloximes and N-Methyl Carbamates in Ground Water by Direct Aqueous Injection HPLC with Post-Column Derivatization." Method 531.1 can be used to measure aldicarb, aldicarb sulfoxide, aldicarb sulfone, carbofuran and oxamyl.

(viii) Method 513, "Determination of 2,3,7,8-TCDD in Drinking Water by Gas Chromatography/High Resolution Mass Spectrometry." Method 513 can be used to measure 2,3,7,8-TCDD (dioxin).

(ix) Method 547, "Analysis of Glyphosate in Drinking Water by Direct Aqueous Injection HPLC with Post-Column Derivatization." Method 547 can be used to measure glyphosate.

(x) Method 548, "Determination of Endothall in Aqueous Samples." Method 548 can be used to measure endothall.

(xi) Method 549, "Determination of Diquat and Paraquat in Drinking Water by High Performance Liquid Chromatography with Ultraviolet Detection" Method 549 can be used to measure diquat.

(xii) Method 525, "Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column GC/Mass Spectrometry." Method 525 can be used to measure di(ethylhexyl)adipate, endrin, hexachlorobenzene, hexachlorocyclopentadiene, polynuclear aromatic hydrocarbons, di(ethylhexyl)phthalate and simazine.

(16) [Reserved]

(17) If monitoring data collected after July 25, 1996 was generally consistent with the requirements of § 141.24(h), then the State may allow systems to use that data to satisfy the initial monitoring requirement of § 141.24(h)(3).

(18) The State may increase the required monitoring frequency, where necessary, to detect variations within the system (e.g., fluctuations in concentration due to seasonal use, changes in water source).

(19) The State has the authority to determine compliance or initiate enforcement action based upon analytical results and other information compiled by their sanctioned representatives and agencies.

4. Section 141.32 is amended by adding paragraph (a)(1)(iii)(E), by adding and reserving paragraphs (e)(13) through (e)(52) and by adding paragraphs (e)(53) through (e)(76) to read as follows:

**§ 141.32 General Public Notification Requirements.**

(a) * * *

(1) * * *

(iii) * * *

(B) * * *

(C) [Reserved]

(E) Violation of the MCL for sulfate as defined in § 141.62 and determined according to § 141.23(e).

* * * * *

(e) * * *

(13)–(52) [Reserved]

(53) *Antimony.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that antimony is a health concern at certain levels of exposure. This inorganic chemical occurs naturally in the ground and is often used in the flame retardant industry. It is also used in ceramics, glass, batteries, fireworks and explosives. It may get into drinking water through natural weathering of rock, industrial production, municipal waste disposal or manufacturing processes. This chemical has been shown to decrease longevity, and altered blood levels of cholesterol and glucose in laboratory animals such as rats exposed to high levels during their lifetimes. EPA has set the drinking water standard for antimony at [insert final MCL] parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to antimony.

(54) *Beryllium.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that beryllium is a health concern at certain levels of exposure. This inorganic metal occurs naturally in the ground and is often used in electrical equipment and electrical components. It generally gets into water from runoff from mining operations, discharge from processing plants and improper waste disposal. Beryllium compounds have been associated with damage to the bones and lungs and induction of cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for beryllium at 0.001 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to beryllium.

(55) *Cyanide.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that cyanide is a health concern at certain levels of exposure.

This inorganic chemical is used in electroplating, steel processing, plastics, synthetic fabrics and fertilizer products. It usually gets into water as a result of improper waste disposal. This chemical has been shown to damage the spleen, brain and liver of humans fatally poisoned with cyanide. EPA has set the drinking water standard for cyanide at 0.2 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to cyanide.

(56) *Nickel.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that nickel poses a health concern at certain levels of exposure. This inorganic metal occurs naturally in the ground and is often used in electroplating, stainless steel and alloy products. It generally gets into water from mining and refining operations. This chemical has been shown to damage the heart and liver in laboratory animals when the animals are exposed to high levels over their lifetimes. EPA has set the drinking water standard at 0.1 part per million (ppm) for nickel to protect against the risk of these adverse effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to nickel.

(57) *Sulfate.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that sulfate poses an acute health concern at certain levels of exposure. This inorganic chemical occurs naturally in the ground and is used widely in the chemical industry. It generally gets into water after dissolving from naturally occurring minerals in the ground. This chemical can cause diarrhea in humans exposed to high levels. This adverse effect is, however, transient and ill effects stop after individuals become acclimated to high sulfate levels. Infants are at the greatest risk. Diarrhea in infants increases the risk of dehydration which could be fatal. This is an acute disease in that the child can exhibit symptoms within hours of consuming water. Clearly, expert medical advice should be sought to prevent dehydration. The purpose of this notice is to encourage parents and other responsible parties to provide infants with an alternate source of drinking water. Local and State health authorities are the best source for information concerning alternate sources of drinking water for infants. You will receive notice as soon as a determination has been made that the drinking water is safe. EPA has set the drinking water standard at [insert final MCL] for sulfate to protect against the risk of these adverse effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to sulfate.

(58) *Thallium.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that thallium is a health concern at certain high levels of exposure. This inorganic metal is found naturally in soils and is used in electronics, pharmaceuticals, the manufacture of glass and alloys. This chemical has been shown to damage the kidney, liver, brain and intestines of laboratory animals when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for thallium at [insert final MCL] parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to thallium.

(59) *Benzo(a)pyrene.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that benzo(a)pyrene is a health concern at certain levels of exposure. Cigarette smoke and charbroiled meats are common sources of general exposure. The major source of benzo(a)pyrene in drinking water is the leaching from coal tar lining and sealants in water storage tanks. This chemical has been shown to cause cancer in animals such as rats and mice when the animals are exposed at high levels. EPA has set the drinking water standard for benzo(a)pyrene at 0.0002 part per million (ppm) to protect against the risk of cancer. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to benzo(a)pyrene.

(60) *Dalapon.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that dalapon is a health concern at certain levels of exposure. This organic chemical is a widely used herbicide. It may get into drinking water after application to control grasses in crops, drainage ditches and along railroads. This chemical has been shown to cause damage to the kidney and liver in laboratory animals when the animals are exposed to high levels over their lifetimes. EPA has set the drinking water standard for dalapon at 0.2 part per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to dalapon.

(61) *Dichloromethane.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that dichloromethane (methylene chloride) is a health concern at certain levels of exposure. This organic chemical is a widely used solvent. It is used in the manufacture of paint remover, as a metal degreaser and as an aerosol propellant. It generally gets into drinking water after improper discharge of waste disposal. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for dichloromethane at 0.005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to dichloromethane.

(62) *Di(ethylhexyl)adipate.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that di(ethylhexyl)adipate is a health concern at certain levels of exposure. Di(ethylhexyl)adipate is a widely used plasticizer in a variety of products, including synthetic rubber, food packaging materials and cosmetics. It may get into drinking water after improper waste disposal. This chemical has been shown to damage liver and testes in laboratory animals such as rats and mice exposed to high levels. EPA has set the drinking water standard for di(ethylhexyl)adipate at 0.5 parts per million (ppm) to protect against the risk of adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to di(ethylhexyl)adipate.

(63) *Di(ethylhexyl)phthalate.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that di(ethylhexyl)phthalate is a health concern at certain levels of exposure. Di(ethylhexyl)phthalate is a widely used plasticizer, which is primarily used in the production of polyvinyl chloride (PVC) resins. It may get into drinking water after improper waste disposal.

This chemical has been shown to cause cancer in laboratory animals such as rats and mice exposed to high levels over their lifetimes. EPA has set the drinking water standard for di(ethylhexyl)phthalate at 0.004 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to di(ethylhexyl)phthalate.

(64) *Dinoseb.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that dinoseb is a health concern at certain levels of exposure. Dinoseb is a widely used pesticide and generally gets into drinking water after application on orchards, vineyards and other crops. This chemical has been shown to damage the thyroid and reproductive organs in laboratory animals such as rats exposed to high levels. EPA has set the drinking water standard for dinoseb at 0.007 parts per million (ppm) to protect against the risk of adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to dinoseb.

(65) *Diquat.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that diquat is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control terrestrial and aquatic weeks. It may get into drinking water by runoff into surface water. This chemical has been shown to damage the liver, kidney and gastrointestinal tract and causes cataract formation in laboratory animals such as dogs and rats exposed at high levels over their lifetimes. EPA has set the drinking water standard for diquat at 0.02 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to diquat.

(66) *Endothall.* The United States Environmental Protection Agency (EPA) has determined that endothall is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control terrestrial and aquatic weeks. It may get into water by runoff into surface water. This chemical has been shown to damage the liver, kidney, gastrointestinal tract and reproductive system of laboratory animals such as rats and mice exposed at high levels over their lifetimes. EPA has set the drinking water standard for endothall at 0.1 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to endothall.

(67) *Endrin.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that endrin is a health concern at certain levels of exposure. This organic chemical is a pesticide no longer registered for use in the United States. However, this chemical is persistent in treated soils and accumulates in sediments and aquatic and terrestrial biota. This chemical has been shown to cause damage to the liver, kidney and heart in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for endrin at 0.002 parts per million (ppm) to protect against the risk of these adverse health effects which have been observed in laboratory animals. Drinking water that meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to endrin.

(68) *Glyphosate.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that glyphosate is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control grasses and weeds. It may get into drinking water by runoff into surface water. This chemical has been shown to cause damage to the liver and kidneys in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for glyphosate at 0.7 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to glyphosate.

(69) *Hexachlorobenzene.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that hexachlorobenzene is a health concern at certain levels of exposure. This organic chemical is produced as an impurity in the manufacture of certain solvents and pesticides. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed to high levels during their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for hexachlorobenzene at 0.001 parts per million (ppm) to protect against the risk of cancer and other adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to hexachlorobenzene.

(70) *Hexachlorocyclopentadiene.* The United States Environmental Protection Agency (EPA) establishes drinking water standards and has determined that hexachlorocyclopentadiene is a health concern at certain levels of exposure. This organic chemical is used as an intermediate in the manufacture of pesticides and flame retardants. It may get into water by discharge from production facilities. This chemical has been shown to damage the kidney and the stomach of laboratory animals when exposed at high levels over their lifetimes. EPA has set the drinking water standard for hexachlorocyclopentadiene at 0.05 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to hexachlorocyclopentadiene.

(71) *Oxamyl.* The United States Environmental Protection Agency (EPA) establishes drinking water standards and has determined that oxamyl is a health concern at certain levels of exposure. This organic chemical is used as a pesticide for the control of insects and other pests. It may get into drinking water by runoff into surface water or leaching into ground water. This chemical has been shown to damage the kidneys of laboratory animals such as rats when exposed at high levels over their lifetimes. EPA has set the drinking water standard for oxamyl at 0.2 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to oxamyl.

(72) *Picloram.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that picloram is a health concern at certain levels of exposure. This organic chemical is used as a pesticide for broadleaf weed control. It may get into drinking water by runoff into surface water or leaching into ground water as a result of pesticide application and improper waste disposal. This chemical has been shown to cause damage to the kidneys and

liver in laboratory animals such as rats when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for picloram at 0.5 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to picloram.

(73) *Simazine.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that simazine is a health concern at certain levels of exposure. This organic chemical is a herbicide used to control annual grasses and broadleaf weeds. It may leach into ground water or runs off into surface water after application. This chemical may cause cancer in laboratory animals such as rats and mice exposed at high levels during their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for simazine at 0.001 parts per million (ppm) to reduce the risk of cancer or other adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to simazine.

(74) *1,2,4-Trichlorobenzene.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that 1,2,4-trichlorobenzene is a health concern at certain levels of exposure. This organic chemical is used as a dye carrier and as a precursor in herbicide manufacture. It generally gets into drinking water by discharges from industrial activities. This chemical has been shown to cause damage to liver and kidneys in laboratory animals such as rats when the animals are exposed at high levels over their lifetimes. EPA has set the drinking water standard for 1,2,4-trichlorobenzene at 0.009 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to 1,2,4-trichlorobenzene.

(75) *1,1,2-Trichloroethane.* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined 1,1,2-trichloroethane is a health concern at certain levels of exposure. This organic chemical is an intermediate in the production of 1,1-dichloroethylene. It generally gets into water by industrial discharge of wastes. This chemical has been shown to damage the kidney and liver of laboratory animals such as rats exposed to high levels during their lifetimes. EPA has set the drinking water standard for 1,1,2-trichloroethane at 0.005 parts per million (ppm) to protect against the risk of these adverse health effects. Drinking water which meets the EPA standard is associated with little to none of this risk and should be considered safe with respect to 1,1,2-trichloroethane.

(76) *2,3,7,8-TCDD (Dioxin).* The United States Environmental Protection Agency (EPA) sets drinking water standards and has determined that dioxin is a health concern at certain levels of exposure. This organic chemical is an impurity in the production of some pesticides. It may get into drinking water by industrial discharge of wastes. This chemical has been shown to cause cancer in laboratory animals such as rats and mice when the animals are exposed at high levels over their lifetimes. Chemicals that cause cancer in laboratory animals also may increase the risk of cancer in humans who are exposed over long periods of time. EPA has set the drinking water standard for dioxin at 0.00000005 parts per million (ppm) to reduce the risk of cancer or other adverse health effects which have been observed in laboratory animals. Drinking water which meets this standard is associated with little to none of this risk and should be considered safe with respect to dioxin.

* * * * *

6. Section 141.50 is amended by adding and reserving paragraphs (a)(6) through (a)(18), by adding paragraphs (a)(19) through (a)(23), by adding and reserving entries (b)(4) through (b)(21), and by adding entries (b)(22) through (b)(34) to the table in paragraph (b) as follows:

**§ 141.50 Maximum contaminant level goals for organic chemicals.**

(a) * * *

(6)–(18)[Reserved]

(19) Dichloromethane (methylene chloride)

(20) Di(ethylhexyl)phthalate [Butylbenzylphthalate]

(21) Hexachlorobenzene

(22) PAHs [Benzo(a)pyrene] [Benz(a)anthracene, Benzo(b)fluoranthene, Benzo(K)fluoranthene, Chrysene, Dibenz(a,h)anthracene, Indenopyrene]

(23) 2,3,7,8-TCDD (dioxin)

(b) * * *

| Contaminant | MCLG (mg/l) |
|---|---|
| * * * * * | |
| (4)–(21)[Reserved]: | |
| (22) Dalapon | 0.2 |
| (23) Di(ethylhexyl)adipate | 0.5 |
| (24) Dinoseb | 0.007 |
| (25) Diquat | 0.02 |
| (26) Endothall | 0.1 |
| (27) Endrin | 0.002 |
| (28) Glyphosate | 0.7 |
| (29) Hexachlorocyclopentadiene | 0.05 |
| (30) Oxamyl (Vydate) | 0.2 |
| (31) Picloram | 0.5 |
| (32) Simazine | 0.001 |
| (33) 1,2,4–Trichlorobenzene | 0.009 |
| (34) 1,1,2–Trichloroethane | 0.003 |

7. Section 141.51 is amended by adding paragraph (a), by adding and reserving entries (b)(3) through (b)(9) and by adding entries (b)(10) through (b)(14) to the table in paragraph (b) to read as follows:

**§ 141.51 Maximum contaminant level goals for inorganic contaminants.**

(a) The MCLG is zero for the following contaminant:

(l) Beryllium.

(b) * * *

| Contaminant | MCLG (mg/l) |
|---|---|
| * * * * * | |
| (3)–(9) [Reserved]: | |
| (10) Antimony | 0.003 |
| (11) Cyanide | 0.2 |
| (12) Nickel | 0.1 |
| (13) Sulfate | 400/500 |
| (14) Thallium | 0.0005 |

8. Section 141.60 is revised to read as follows:

**§ 141.60 Effective dates.**

(a) The effective dates for § 141.61 are as follows:

(1) The effective date for paragraphs (a)(1) through (a)(8) of § 141.61 is January 9, 1989.

(2) [Reserved].

(3) The effective date for paragraphs (a)(19) through (a)(21) and (c)(19) through (c)(33) of § 141.61 is January 27, 1992.

(b) The effective dates for § 141.62 are as follows:

(1)–(2) [Reserved].

(3) The effective date for paragraphs (b)(10) through (b)(15) of § 141.62 is January 27, 1992.

9. Section 141.61 is revised to read as follows:

**§ 141.61 Maximum contaminant levels for organic contaminants.**

(a) The following maximum contaminant levels for organic contaminants apply to community and non-transient, non-community water systems.

| CAS No. | Contaminant | MCL (mg/l) |
|---|---|---|
| (1)–(18) [Reserved] | | |
| (19) 75-09-2 | Dichloromethane | 0.005 |
| (20) 120-82-1 | 1,2,4-Trichlorobenzene. | 0.009 |
| (21) 79-00-5 | 1,1,2-Trichloroethane. | 0.005 |

(b) The Administrator, pursuant to section 1412 of the Act, hereby identifies as indicated in the Table below either granular activated carbon (GAC), packed tower aeration (PTA), or both as the best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant level for synthetic organic contaminants identified in paragraphs (a) and (c) of this section:

BAT FOR SYNTHETIC ORGANIC CONTAMINANTS LISTED IN SECTION 141.61 (a) and (c)

| CAS | Chemical | GAC | PTA |
|---|---|---|---|
| 50-32-8 | Benzo(a)pyrene* | X | |
| 75-99-0 | Dalapon | X | |
| 75-09-2 | Dichloromethane | | X |
| 103-23-1 | Di(ethylhexyl)adipate. | X | X |
| 117-81-7 | Di(ethylhexyl)phthalate. | X | |
| 88-85-7 | Dinoseb | X | |
| 85-00-7 | Diquat | X | |
| 145-73-3 | Endothall | X | |
| 72-20-8 | Endrin | X | |
| 1071-53-6 | Glyphosate | X | |
| 118-74-1 | Hexachlorobenzene. | X | |
| 77-47-4 | Hexachlorocyclopentadiene. | X | X |
| 23135-22-0 | Oxamyl (Vydate) | X | |
| 1918 02-1 | Picloram | X | |
| 122-34-9 | Simazine | X | |
| 120-82-1 | 1,2,4-Trichlorobenzene. | X | X |
| 79-00-5 | 1,1,2-Trichloroethane. | X | X |
| 1746-01-6 | 2,3,7,8,-TCDD (dioxin). | X | |

*[EPA is considering MCLs for other PAHs; the BAT would also be GAC.]

(c) The following Maximum Contaminant Levels for synthetic organic contaminants apply to community water systems and non-transient, non-community water systems.

| CAS No. | Contaminant | MCL (mg/l) |
|---|---|---|
| (1)–(18) [Reserved] | | |
| (19) 75-99-0 | Dalapon | 0.2 |
| (20) 103-23-1 | Di(ethylhexyl)adipate | 0.5 |
| (21) 117-81-7 | Di(ethylhexyl)phthalate | 0.004 |
| | Butylbenzylphthalate | 0.1 |
| (22) 88-85-7 | Dinoseb | 0.007 |
| (23) 85-00-7 | Diquat | 0.02 |
| (24) 145-73-3 | Endothall | 0.1 |
| (25) 72-20-8 | Endrin | 0.002 |
| (26) 1071-53-6 | Glyphosate | 0.7 |
| (27) 118-74-1 | Hexachlorobenzene | 0.001 |
| (28) 77-47-4 | Hexachlorocyclopentadiene. | 0.05 |
| (29) 23135-22-0 | Oxamyl (vydate) | 0.2 |
| (30) 50-32-8 | PAHs: | |
| | Benzo(a)pyrene | 0.0002 |
| | Benz(a)anthracene | 0.0001 |
| | Benzo(b)fluoranthene. | 0.0002 |
| | Benzo(k)fluoranthene. | 0.0002 |
| | Chrysene | 0.0002 |
| | Dibenz (a,h) anthracene. | 0.0003 |
| | Indenopyrene | 0.0004 |
| (31) 1918-02-1 | Picloram | 0.5 |
| (32) 122-34-9 | Simazine | 0.001 |
| (33) 1746-01-6 | 2,3,7,8,-TCDD (dioxin) | $5 \times 10^{-8}$ |

10. In section 141.62 paragraph (b) is revised and a new paragraph (c) is added to read as follows:

**§ 141.62 Maximum contaminant levels for inorganic contaminants.**

(a) [Reserved]

(b) The maximum contaminant levels for inorganic contaminants specified in paragraphs (b)(2)–(6), (b)(9), and (b) (10)–(15) of this section apply to community water systems and non-transient, non-community water systems. The maximum contaminant level specified in paragraph (b)(1) of this section only applies to community water systems. The maximum contaminant levels specified in (b)(7) and (b)(8) of this section apply to community water systems, non-transient non-community water systems and transient non-community water systems.

| Contaminant | MCL (mg/l) |
|---|---|
| (1)–(9) [Reserved] | |
| (10) Antimony | 0.01/0.005 |
| (11) Beryllium | 0.001 |
| (12) Cyanide | 0.2 |
| (13) Nickel | 0.1 |
| (14) Sulfate | 400/500 |
| (15) Thallium | 0.002/0.001 |

(c) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant levels for inorganic contaminants identified in paragraph (b) of this section, except fluoride:

Bat for Inorganic Compounds Listed in § 141.62(b)

| Chemical Name | BAT(s) |
|---|---|
| Antimony | 2, 7 |
| Asbestos | 2, 3, 8 |
| Barium | 5, 6, 7 |
| Beryllium | 1, 2, 5, 6, 7 |
| Cadmium | 2, 5, 6, 7 |
| Chromium | 2, 5, 6 [3], 7 |
| Cyanide | 5, 7, 9 |
| Mercury | 2 [1], 4, 6 [1], 7 [1] |
| Nickel | 5, 6, 7 |
| Nitrate | 5, 7 |
| Nitrite | 5, 7 |
| Selenium | 1, 2 [3], 6, 7 |
| Sulfate | 5, 7 |
| Thallium | 1, 5 |

[1] BAT only if influent Hg concentrations <10μg/l.
[3] BAT for Chromium III only.
[3] BAT for Selenium IV only.

*Key to BATS in Table*

1=Activated Alumina
2=Coagulation/Filtration
3=Direct and Diatomite Filtration
4=Granular Activated Carbon
5=Ion Exchange
6=Lime Softening
7=Reverse Osmosis
8=Corrosion Control
9=Chlorine Oxidation
10=Ultraviolet

## PART 142—NATIONAL PRIMARY DRINKING WATER REGULATIONS IMPLEMENTATION

1. The authority citation for part 142 continues to read as follows:

Authority: 42 U.S.C. 300g–2, 300g–3, 300g–4, 300g–5, 300j–4 and 300j–9.

2. Section 142.14 is amended by revising paragraph (a)(4), by adding and reserving paragraphs (d)(4) through (d)(10) and by adding paragraphs (d)(11) through (d)(17) to read as follows:

**§ 142.14 Records kept by States.**

(a) * * *

* * * * * *

(4) Records of analyses for other than microbiological contaminants or turbidity shall be retained for no less than 10 years and shall include at least the following information:

(i) Date and place of sampling.

(ii) Date and results of analyses.

* * * * * *

(d) * * *

* * * * * *

(4)–(10) [Reserved]

(11) Records of any determination of a system's vulnerability to contamination made pursuant to §§ 141.23(b), 141.24 (g) and (h), and 141.40 (n) and (o). The records shall also include the basis for such determination. A copy of the most

recent vulnerability assessment must be kept in the records.

(12) Records of any determination, made pursuant to §§ 141.23(c), 141.23(e), and/or 141.24 (g) and (h) that a system may decrease the frequency of its monitoring and records of any determination, made pursuant to §§ 141.23(g), 141.24(g)(13), and 141.24(h)(18) requiring a system to increase monitoring frequency. The records shall include the basis for the decision and the new required monitoring frequency.

(13)–(17) [Reserved]

3. Section 142.15 is amended by adding and reserving paragraphs (a)(1) through (a)(11) and by adding paragraphs (a)(12) through (a)(17) to read as follows:

**§ 142.15 Reports by States.**

* * * * *

(a) * * *

(1)–(11) [Reserved]

(12) A list, including the PWS identification number, of all systems, on which, the State has conducted a vulnerability assessment. The basis for the determination as either vulnerable or not vulnerable must be made available to EPA for review upon request.

(13) The basis for the State's decisions and the new required monitoring frequency must be made available to EPA for review upon request.

(14) [Reserved]

(15) The results of any monitoring conducted for the contaminants listed in § 141.40 (n), (o) and (p).

(16)–(17) [Reserved]

* * * * *

4. Section 142.16 is amended by adding and reserving paragraph (d), and by adding paragraph (e) to read as follows:

**§ 142.16 Special Primacy requirements.**

* * * * *

(d) [Reserved]

(e) An application for approval of a State program revision which adopts the requirements specified in §§ 141.23, 141.24, 141.40, 141.61 and 141.62 must contain the following:

(1) The procedure the State will use to conduct vulnerability assessments as required by §§ 141.23, 141.24 and 141.40. The procedure must include the factors the State will use in conducting vulnerability assessments and the method the State will use to inform the system of its classification as either vulnerable or not vulnerable. The procedure shall also include provisions for reclassification of systems and the factors the State will use in reclassifying.

(2) The procedure the State will use in determining that a system may decrease the frequency of its monitoring (as provided for by §§ 141.23 and 141.24), including the factors a State will use in making this determination as well as the method the State will use to inform the system of its new required monitoring frequency.

5. Section 142.57 is revised to read as follows:

**§ 142.57 Bottled Water and Point-of-use Devices.**

(a) A State may require a public water system to use bottled water or point-of-use devices as a condition for granting an exemption from the requirements of § 141.61(a) and § 141.62 of this part.

(b) Public water systems that use bottled water as a condition of obtaining an exemption from the requirements of § 141.61(c) and § 141.62 must meet the requirements set out in § 142.62(f) of this part.

(c) Public water systems that use point-of-use devices as a condition for receiving an exemption must meet the requirements set out in § 142.62(g) of this part. Public water systems that use point-of-use devices as a condition for receiving an exemption must meet the requirements set out in § 141.64(f) of this part.

6. section 142.62 is revised to read as follows:

**§ 142.62 Variances and exemptions from the maximum contaminant levels for synthetic organic and inorganic chemicals.**

(a) The Administrator, pursuant to Section 1415(a) (1)(A) of the Act, hereby identifies the technologies listed in paragraphs (a)(1) through (a)(54) of this section as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for synthetic organic chemicals listed in § 141.61 (a) and (c) and the maximum contaminant levels for inorganic chemicals listed in § 141.62.

| | Section 1415—Best Available Technologies | |
|---|---|---|
| | GAC | PTA |
| (1) [Reserved] | | |
| (2) [Reserved] | | |
| (3) [Reserved] | | |
| (4) [Reserved] | | |
| (5) [Reserved] | | |
| (6) [Reserved] | | |
| (7) Benzo(a)pyrene* | X | |
| (8) [Reserved] | | |
| (9) [Reserved] | | |
| (10) [Reserved] | | |
| (11) [Reserved] | | |
| (12) Dalapon | X | |
| (13) [Reserved] | | |
| (14) [Reserved] | | |
| (15) [Reserved] | | |
| (16) [Reserved] | | |
| (17) [Reserved] | | |
| (18) [Reserved] | | |
| (19) [Reserved] | | |
| (20) Dichloromethane | | X |
| (21) [Reserved] | | |
| (22) Di(ethylhexyl)adipate | X | X |
| (23) Di(ethylhexyl)phthalate | X | |
| (24) Dinoseb | X | |
| (25) Diquat | X | |
| (26) Endothall | | X |
| (27) Endrin | X | |
| (28) [Reserved] | | |
| (29) [Reserved] | | |
| (30) Glyphosate | X | |
| (31) [Reserved] | | |
| (32) [Reserved] | | |
| (33) Hexachlorobenzene | X | |
| (34) Hexachlorocyclopentadiene | X | X |
| (35) [Reserved] | | |
| (36) [Reserved] | | |
| (37) [Reserved] | | |
| (38) Oxamyl (vydate) | X | |
| (39) [Reserved] | | |
| (40) [Reserved] | | |
| (41) Picloram | X | |
| (42) Simazine | X | |
| (43) [Reserved] | | |
| (44) [Reserved] | | |
| (45) [Reserved] | | |
| (46) [Reserved] | | |
| (47) [Reserved] | | |
| (48) 1,2,4-Trichlorobenzene | X | X |
| (49) [Reserved] | | |
| (50) 1,1,2-Trichloroethane | X | X |
| (51) [Reserved] | | |
| (52) 2,3,7,8-TCDD (dioxin) | X | |
| (53) [Reserved] | | |
| (54) [Reserved] | | |

*[EPA is considering MCLs for other PAHs; the BAT under section 1415 would also be GAC.]

(b) A state shall require community water systems and non-transient, non-community water systems to install and/or use any treatment method identified in § 142.62(a) as a condition for granting a variance except as provided in paragraph (c) of this section. If, after the system's installation of the treatment method, the system cannot meet the MCL, that system shall be eligible for a variance under the provisions of section 1415(a)(1)(A) of the Act.

(c) If a system can demonstrate through comprehensive engineering assessments, which may include pilot plant studies, that the treatment methods identified in § 142.62(a) would only achieve a *de minimus* reduction in contaminants, the State may issue a schedule of compliance that requires the system being granted the variance to examine other treatment methods as a condition of obtaining the variance.

(d) If the State determines that a treatment method identified in paragraph (c) of this section is

technically feasible, the Administrator or the primacy State may require the system to install and/or use that treatment method in connection with a compliance schedule issued under the provisions of section 1415(a)(1)(A) of the act. The State's determination shall be based upon studies by the system and other relevant information.

(e) The State may require a public water system to use bottled water or point-of-use devices or other exemption from the requirements of § 141.61 (a), (c) or § 141.62 to avoid an unreasonable risk to health.

(f) Public water systems that use bottled water as a condition for receiving a variance or an exemption from the requirements of § 141.62 must meet the following requirements in either paragraph (f)(1) or (f)(2) of this section in addition to the requirements in paragraph (f)(3) of this section:

(1) The Administrator or primacy State must require and approve a monitoring program for bottled water. The public water system must develop and put in place a monitoring program that provides reasonable assurances that the bottled water meets all MCLs. The public water system must monitor a representative sample of the bottled water for all contaminants regulated under § 141.61 (a), (c) and § 141.62 the first quarter that it supplies the bottled water to the public, and annually thereafter. Results of the monitoring program shall be provided to the State annually. Alternatively, the public water system may satisfy the requirements under this subsection if an approved monitoring program is already in place in another State, or if the supplier is already regulated by the State.

(2) The public water system must receive a certification from the bottled water company that the bottled water supplied has been taken from an "approved source" as defined in 21 CFR 129.3(a); the bottled water company has conducted monitoring in accordance with 2l CFR 129.80(g) (1) through (3); and the bottled water does not exceed any MCLs or quality limits as set out in 21 CFR 103.35, 110, and 129. The public water system shall provide the certification to the State the first quarter after it supplies bottled water and annually thereafter.

(3) The public water system is fully responsible for the provision of sufficient quantities (i.e., at least for drinking and cooking purposes) of bottled water to every person supplied by the public water system, via door-to-door bottled water delivery.

(g) Public water systems that use point-of-use devices as a condition for obtaining a variance or an exemption from NPDWRs must meet the following requirements:

(1) It is the responsibility of the public water system to operate and maintain the point-of-use treatment system.

(2) The public water system must develop a monitoring plan and obtain State approval for the plan before point-of-use devices are installed for compliance. This monitoring plan must provide health protection equivalent to a monitoring plan for central water treatment.

(3) Effective technology must be properly applied under a plan approved by the State and the microbiological safety of the water must be maintained.

(4) The State must require adequate certification of performance, field testing, and if not included in the certification process, a rigorous engineering design review of the point-of-use devices.

(5) The design and application of the point-of-use devices must consider the tendency for increase in heterotrophic bacteria concentrations in water treated with activated carbon. It may be necessary to use frequent backwashing, post-contactor disinfection, and Heterotrophic Plate Count monitoring to ensure that the microbiological safety of the water is not compromised.

(6) All consumers shall be protected. Every building connected to the system must have sufficient point-of-use devices to protect all users installed, maintained, and adequately monitored. The State must be assured that every building is subject to treatment and monitoring, and that the rights and responsibilities of the public water system customer convey with title upon sale of property.

7. A new § 142.65 is added to subpart G to read as follows:

**§ 142.64 Variances and exemptions from the maximum contaminant levels for the inorganic contaminants listed in § 141.62.**

(a) The Administrator, pursuant to section 1415(a)(1)(A) of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for the inorganic contaminants listed in § 141.62:

BAT for Inorganic Compounds Listed in Section 141.62(b)

| Chemical name | BAT(s) |
|---|---|
| Antimony | 2, 7 |
| Asbestos | 2, 3, 8 |
| Barium | 5, 6, 7 |
| Beryllium | 1, 2, 5, 6, 7 |
| Cadmium | 2, 5, 6, 7 |
| Chromium | 2, 5, 6**, 7 |
| Cyanide | 5, 7, 9 |
| Mercury | 2*, 4, 6*, 7* |
| Nickel | 5, 6, 7 |
| Nitrate | 5, 7 |
| Nitrite | 5, 7 |
| Selenium | 1, 2***, 6, 7 |
| Sulfate | 5, 7 |
| Thallium | 1, 5 |

*BAT only if influent Hg concentrations <10μg/1.
**BAT for Chromium III only.
***BAT for Selenium IV only.

*Key to BATs in Table*

1=Activated Alumina
2=Coagulation/Filtration (not BAT for systems <500 service connections)
3=Direct and Diatomite Filtration
4=Granular Activated Carbon
5=Ion Exchange
6=Lime Softening (not BAT for systems <500 service connections)
7=Reverse Osmosis
8=Corrosion Control
9=Chlorine Oxidation
10=Ultraviolet

(b) A State shall require community water systems and non-transient, non-community water systems to install and/or use any treatment method identified in 141.64(a) as a condition for granting a variance, except as provided in paragraph (c) of this section. If, after the system's installation of the treatment method, the system cannot meet the MCL, that system shall be eligible for a variance under the provisions of section 1415(a)(1)(A) of the Act.

(c) If a system can demonstrate through comprehensive engineering assessments, which may include pilot plant studies that the treatment methods identified in § 141.64(a) would only achieve a *de minimus* reduction in contaminants, the State may issue a schedule of compliance that requires the system being granted the variance to examine other treatment methods as a condition of obtaining the variance.

(d) If the State determines that a treatment method identified in paragraph (c) of this section is technically feasible, the Administrator or primacy State may require the system to install and/or use that treatment method in connection with a compliance schedule issued under the provisions of section 1415(a)(1)(A) of the Act. The State's determination shall be based upon studies by the system and other relevant information.

(e) The State may require a public water system to use bottled water or point-of-use devices or other means as a condition of granting a variance or an exemption from the requirements of

§ 141.62, to avoid an unreasonable risk to health.

(f) Public water systems that use bottled water as a condition for receiving a variance or an exemption from the requirements of § 141.62 must meet the following requirements in either paragraph (f)(1) or (f)(2) of this section in addition to requirements in paragraph (f)(3) of this section:

(1) The Administrator or primacy State must require and approve a monitoring program for bottled water. The public water system must develop and put in place a monitoring program that provides reasonable assurances that the bottled water meets all MCLs. The public water system must monitor a representative sample of the bottled water for all contaminants regulated under § 141.62 the first quarter that it supplies the bottled water to the public, and annually thereafter. Results of the monitoring program shall be provided to the State annually.

(2) The public water system must receive a certification from the bottled water company that the bottled water supplied has been taken from an "approved source" as defined in 21 CFR 129.3(a); the bottled water company has conducted monitoring in accordance with 21 CFR 129.80(g) (1) through (3); and, the bottled water does not exceed any MCLs or quality limits as set out in 21 CFR 103.35, 110 and 129. The public water system shall provide the certification to the State the first quarter after it supplies bottled water and annually thereafter.

(3) The public water system is fully responsible for the provision of sufficient quantities of bottled water to every person supplied by the public water system, via door-to-door bottled water delivery.

(g) Public water systems that use point-of-use devices as a condition for obtaining a variance or an exemption from NPDWRs for inorganic compounds must meet the following requirements:

(1) It is the responsibility of the public water system to operate and maintain the point-of-use treatment system.

(2) The public water system must develop a monitoring plan and obtain state approval for the plan before point-of-use devices are installed for compliance. This monitoring plan must provide health protection equivalent to a monitoring plan for central water treatment.

(3) Effective technology must be properly applied under a plan approved by the state and the microbiological safety of the water must be maintained.

(4) The State must require adequate certification of performance, field testing, and, if not included in the certification process, a rigorous engineering design review of the point-of-use devices.

(5) The design and application of the point-of-use devices must consider the tendency for increase in heterotrophic bacteria concentrations in water treated with activated carbon. It may be necessary to use frequent backwashing, post-contactor disinfection, and Heterotrophic Plate Count monitoring to ensure that the microbiological safety of the water is not compromised.

(6) All consumers shall be protected. Every building connected to the system must have sufficient point-of-use devices to protect all users installed, maintained, and adequately monitored. The State must be assured that every building is subject to treatment and monitoring, and that the rights and responsibilities of the public water system customer convey with title upon sale of property.

## PART 143—NATIONAL SECONDARY DRINKING WATER REGULATIONS

1. The authority citation for part 143 continues to read as follows:

**Authority:** 42 U.S.C. 300g–1(c), 300j–4 and 300J–9.

2. In § 143.3, the table is amended to add the following entry in alphabetical order:

**§ 143.3 Secondary maximum contaminant levels.**

* * * * *

| Contaminant | Level |
|---|---|
| * * * * * | |
| Hexachlorocyclopentadiene | 0.008 mg/1 |
| * * * * * | |

[FR Doc. 90–16274 Filed 7–24–90; 8:45 am]
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**Last List July 20, 1990**

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