DEPARTMENT OF HOMELAND SECURITY

Coast Guard

46 CFR Parts 401, 403, and 404

[USCG–2016–0268]

RIN 1625–AC34

Great Lakes Pilotage Rates—2017 Annual Review

AGENCY: Coast Guard, DHS.

ACTION: Final rule.

SUMMARY: In this final rule, the Coast Guard is setting new rates for the 2017 shipping season for pilotage services on the Great Lakes. The Coast Guard is also updating its methodology for setting these rates. These updates to the methodology will incorporate the income generated from weighting factors into the ratemaking methodology used to set rates in this and future rulemakings. The Coast Guard believes that the new rates will continue to encourage pilot retention, ensure safe, efficient, and reliable pilotage services on the Great Lakes, and provide adequate funds to upgrade and maintain infrastructure.

DATES: This final rule is effective October 2, 2017.

FOR FURTHER INFORMATION CONTACT: For information about this document call or email Todd Haviland, Director, Great Lakes Pilotage, Coast Guard; telephone 202–372–2037, email *todd.a.haviland@uscg.mil.*

Executive Summary

This final rule amends the Coast Guard's Great Lakes pilotage regulations by revising the current methodology by which the Coast Guard sets base rates for U.S. pilotage service on the Great Lakes, as well as revises the pilotage rates for the remaining portion of the 2017 shipping season. The new methodology adjusts target pilot compensation by inflation, incorporates revenue derived from weighting factor charges into the ratemaking model, and eliminates the provision that the hourly pilotage rate for designated waters could not rise above twice the rate for undesignated waters. We believe that the new methodology will continue to encourage pilot retention, ensure safe, efficient, and reliable pilotage services on the Great Lakes, and provide adequate funds to upgrade and maintain infrastructure.

In addition to the changes in ratemaking methodology, this final rule makes several other additions to Great Lakes Pilotage regulations. It adds new language to billing practices for cancellation charges, clarifying that the minimum charge for canceling the request for a pilot is four hours plus reasonable travel expenses. The final rule also inserts a new mandatory change point at the Iroquois Lock point, ensuring that pilots are adequately rested on this stretch of water. Finally, we have made some textual changes to the regulations to better convey their intent, renaming the ''return on investment'' as ''working capital fund,'' and renaming the 2016 final rule staffing model as the ''seasonal staffing model.''

Based on comments received, several items proposed in the NPRM were not adopted in this final rule. The Coast Guard has chosen not to adopt the 2107 NPRM staffing model, based on compelling arguments that this model did not accurately reflect the unpredictable workload of Great Lakes pilots. Furthermore, we did not move forward on our proposal to move the deadline for audited financial reports from April to January, based on commenters' arguments that this practice would impose hardship out of proportion to its benefit.

Based on updated financial information, increased pilot compensation, the new weighting factor calculations, and other changes to the ratemaking methodology, the revised Great Lakes pilotage rates are being lowered in most areas. We believe that this is a needed correction to better align our projected revenues with the pilot associations' actual collections, as evidence shows that pilotage revenue significantly exceeded what was projected in 2016, even factoring in above-average traffic. The changes in the rates are as follows:

TABLE E–1—CHANGES IN PILOTAGE RATES

Area	Previous pilotage charges per hour ($)	New pilotage charges per hour ($)	Change per hour ($)
St. Lawrence River	580	601	+21
Lake Ontario	398	408	+10
Navigable waters from Southeast Shoal to Port Huron, MI	684	580	−104
Lake Erie	448	429	−19
St. Mary's River	528	514	−14
Lakes Huron, Michigan, and Superior	264	218	−46

SUPPLEMENTARY INFORMATION:

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I. Abbreviations

APA American Pilots Association
CFR Code of Federal Regulations
DHS Department of Homeland Security
FR Federal Register
GLPA Great Lakes Pilotage Authority
GLPAC Great Lakes Pilotage Advisory Committee
MM&P International Organization of Masters, Mates & Pilots
MOU Memorandum of Understanding
NPRM Notice of proposed rulemaking
RA Regulatory analysis
§ Section symbol
SNPRM Supplemental notice of proposed rulemaking
The Act Great Lakes Pilotage Act of 1960
U.S.C. United States Code

II. Regulatory History

The Coast Guard published a notice of proposed rulemaking (NPRM) for this final rule on October 19, 2016 (81 FR 72011), covering a range of issues including revised operational expenses,

a proposed new methodology for calculating pilotage numbers, the addition of a mandatory change point at Iroquois Lock, and revised base pilotage rates. In response, we received 21 public comment letters, covering a diverse range of subjects and providing a substantial amount of information. Subsequently, on April 5, the Coast Guard issued a supplemental notice of proposed rulemaking (SNPRM) proposing to add two additional steps to the ratemaking methodology, which would incorporate the additional revenues collected under 46 CFR 404.100 (the ''weighting factors'') into the ratemaking model. We received 11 public comment letters on the SNPRM.

The Coast Guard received numerous comments in response to the issues raised in the NPRM and SNPRM. These commenters have largely come from Great Lakes maritime shipping stakeholders—both the pilots that perform pilotage services as well as the shipping companies that pay the pilotage fees—as well as other interested parties. We have closely analyzed all of the comment letters and have, where appropriate, incorporated ideas and suggestions from the comments into the analysis of our final rule.

III. Basis and Purpose

The legal basis of this rulemaking is the Great Lakes Pilotage Act of 1960 (the Act),[1] which requires U.S. vessels operating ''on register'' [2] and foreign vessels to use U.S. or Canadian registered pilots while transiting the U.S. waters of the St. Lawrence Seaway and the Great Lakes system.[3] For the U.S.-registered Great Lakes pilots, the Act requires the Secretary to ''prescribe by regulation rates and charges for pilotage services, giving consideration to the public interest and the costs of providing the services.'' [4] We limit the allowable costs of providing this service by ensuring that all allowable expenses are necessary and reasonable for providing pilotage services on the Great Lakes. We believe the public is best served by a safe, efficient, and reliable pilotage service. The goal of our methodology and billing scheme is to generate sufficient revenue for the pilots to provide the service we require. The Act requires that base rates be established by a full ratemaking at least once every 5 years, and in years when base rates are not established, they must be reviewed and, if necessary, adjusted. The Secretary has delegated authority under the Act to the Coast Guard.[5]

The purpose of this rule is to change our annual Great Lakes pilotage ratemaking methodology, set new rates using that methodology, authorize a temporary hiring and training surcharge, and make several other adjustments. For more information on the goals and proposals in this rulemaking, see the discussion section in the NPRM [6] and SNPRM.[7]

IV. Discussion of Comments and Changes

In this section, the Coast Guard reviews the comments received, and provides responses accordingly. In instances where multiple commenters provided insight into similar issues, we have grouped those comments into general categories. Wherever possible, we have attempted to provide citations to the particular comment referenced, and have tried to verify any data provided by the commenter. We have divided the comments up into four general categories: (1) General policy issues; (2) Rate calculation issues; (3) Incorporation of the weighting factors into the ratemaking methodology; and (4) Items for future consideration. These general categories have been further subdivided by issue, as discussed below.

A. General Policy Issues

The most frequently cited issue, raised by numerous commenters, concerned the costs of pilotage. In the NPRM, we proposed a variety of increases in pilotage rates. However, in the subsequent SNPRM, we proposed accounting for the weighting factor and thus lowered hourly pilotage rates accordingly. Numerous commenters, generally aligned with entities that ship goods or pay for shipping on the Great Lakes, made statements on the recent increases in the cost of pilotage over the last several years. For example, one commenter [8] stated that the proposed increase to U.S. pilotage rates constitutes a 15 percent increase, with a total increase of 99 percent since 2014, and that this is on top of a 94 percent increase already imposed on shippers since 2006. Other commenters [9] cited different, albeit similar figures, stating that pilotage costs have increased by 40 percent over three years, and cited the NPRM as saying that pilotage costs now constituted 19 percent of total voyage costs on the Saint Lawrence Seaway.

We acknowledge that the some pilotage rates have increased in the past few years. In our revisions to the methodology, we have eliminated several ancillary fees and changed the billing scheme to meet our goal of aligning projected revenues with the actual association collections. We agree that the total revenues needed by the 3 U.S. Great Lakes Pilot Associations has increased about 40 percent over the past three years if we include the temporary surcharges, after many years of the pilot associations being unable to collect the amount of money our projections indicated would be appropriate. The additional pilots added to ensure continued safe, efficient and reliable pilotage service are the primary reason for the recent rate increases. It is important to note, however, that we have revised the temporary surcharges requirements so the revenues collected for the temporary surcharges will be removed from the expense base of future rates to ensure that the shippers do not pay for the same expense twice. After carefully considering the comments and measuring and assigning values to the variables addressed in the ratemaking methodology, we believe the resultant pilotage rates are fair.

One commenter [10] argued that high pilotage rates were threatening the competitiveness of the St. Lawrence Seaway and Great Lakes system of shipping cargo, and that if the proposed rate increases for 2017 were instituted, shippers may reach a ''tipping point'' where they choose alternate means to ship cargo. The commenter did not provide supporting documentation for this assertion, and we disagree with this statement. Our data indicates that demand for pilotage service in 2016 was greater than 2015 and that demand for pilotage service through June 2017 is trending around 20 percent higher than the 10-year average for the 2017 shipping season.

Other commenters argued that the recent increases in pilotage rates were necessary. One commenter stated that the recent, comparatively large increases were needed to correct inadequate increases in the past, arguing that ''recent seemingly disproportionate increases [in pilotage rates] would have been unnecessary as they could have

[1] Public Law 86–555, 74 Stat. 259, as amended; currently codified as 46 U.S.C. Chapter 93.

[2] ''On register'' means that the vessel's certificate of documentation has been endorsed with a registry endorsement, and therefore, may be employed in foreign trade or trade with Guam, American Samoa, Wake, Midway, or Kingman Reef. 46 U.S.C. 12105, 46 CFR 67.17.

[3] 46 U.S.C. 9302(a)(1).

[4] *See* 46 U.S.C. 9303(f) for all of the Act's pilotage ratemaking requirements discussed in this paragraph.

[5] DHS Delegation No. 0170.1, para. II (92.f).

[6] 81 FR 72011 (October 19, 2016).

[7] 82 FR 2115 (May 5, 2017).

[8] See docket # USCG–2016–0268–0039, p.1.

[9] Docket # USCG–2016–0268–0019, p.1; docket # USCG–2016–0268–0020, p.1.

[10] Docket # USCG–2016–0268–0034, p.1.

been accommodated over time.'' [11] Another commenter argued that the concern over pilotage costs was disingenuous, stating that the vast majority of shippers' pilotage cost results from Canadian pilotage, which is entirely unaffected by the U.S. pilotage rates.[12]

We agree that the recent increases in pilotage rates since 2015 have been warranted. We are well aware that for many years the Coast Guard's methodology for calculating pilotage rates produced rates that failed to raise the target revenue. We have had years where actual revenue was above the target revenue, but below the revenue that we would have projected given the actual demand. In 2016, revenue was higher even than what we would have expected given the demand. While 2016 appears to be an outlier in that regard, it is our goal is to develop a methodology that aligns our projections with the actual amount of revenue the pilot associations generate based upon the realized demand for pilotage service. We believe that the methodology outlined in this final rule is a substantial improvement that will, on average, produce revenues that will cover operating expenses, pay for infrastructure maintenance and the training of new pilots, and offer compensation levels and a workload that will allow the pilot associations to recruit and retain pilots without producing excessive revenue to the detriment of shippers. We are willing to consider future adjustments as necessary to ensure revenue alignment. As discussed below, we believe that compensation levels are currently at a level that is effectively enticing pilots to join and stay in the workforce, and we are not substantially adjusting that in this final rule.

Difference in Pilotage Charges Between the United States and Canada

Several commenters complained that the cost of similar pilotage services differed depending on whether ships were assigned a U.S. or Canadian pilot, and that such differences were contrary to arrangements between the United States and Canada regarding cooperation in management of pilotage in the Great Lakes system. One commenter said that pilotage costs are much higher when the vessel is assigned a U.S. pilot, stating that ''[f]or example, the pilotage expense for a Class 4 vessel transiting from Thunder Bay to St. Lambert costs $39,490 when a Canadian pilot is used, and $29,327 more when a U.S. pilot provides pilotage services.'' [13] The commenter argued that such a disparity is contrary to the 2013 Memorandum of Understanding (MOU) between the U.S. and the Canadian Great Lakes Pilotage Authority (GLPA), which states that the parties ''intend to arrange for the establishment of regulations imposing comparable rates and charges.'' [14]

While the Coast Guard acknowledges that the rates for pilotage services are not identical, our rates for each given segment of a voyage are based upon an analysis of the historical pilotage hours and associated costs necessary to provide service on that segment. We cannot say how the Canadian GLPA determined the charges for corresponding voyage segments. We note that U.S. and Canadian pilots have different funding structures, infrastructure obligations, and compensation packages. There are other instances where U.S. pilotage rates are substantially lower than Canadian rates—for example, a harbor move on Lake Superior for a Class 2 vessel would cost $2,616.73 under Canadian rates, while the same move would cost only $607.20 under U.S. rates (both prices are in U.S. dollars). While some may argue the pilotage rates should be identical, we believe that the rates must primarily cover the cost of operating expenses, infrastructure maintenance, and fair compensation, which is how we have developed the current methodology. We are not offering an opinion as to how differences in infrastructure and compensation funding may alter the rate calculations by the Canadian association.

Finally, we also note that article 9 states that the MOU ''is not an international agreement and does not give rise to any international legal rights or obligations.'' The MOU is a non-binding agreement on cooperation between the Coast Guard and GLPA. The primary purpose of this document is to ensure an equitable share of work between the U.S. and Canadian registered pilots and coordinated pilotage service throughout the System. We interpret comparable rates to mean that the Coast Guard and GLPA will establish rates to cover costs incurred for providing pilotage service in the various areas, even though those costs may be different due to varying fee structures, distribution, labor costs, or other factors. For these reasons, while we acknowledge there are differences in the rates paid by the shipping companies, we still believe that basing the rates on the methodology described in this rulemaking is the most effective way to fund the U.S. Great Lakes pilot associations and necessary infrastructure.

Recruitment and Retention of Pilots

One of the main goals of raising pilotage fees in recent Coast Guard rulemakings has been to reduce pilot attrition and attract new pilots to the region, ensuring a healthy number of mariners capable of handling the shipping traffic safely and with minimal delays. In the 2016 final rule, we stated that, ''the [methodology established in the mid-1990s failed] to consider the totality of pilot time necessary to perform a given pilotage assignment, which often includes long transits to and from the vessel, resulting in low pilot compensation and overloaded work assignments.'' [15]

We received numerous comments from both pilots and shippers concerning pilot retention and attrition. Many commenters urged the Coast Guard to study pilot recruitment and retention factors, including the compensation of individual pilots, to determine the extent of the pilot retention problem and methods for combating low pilot retention. In response, we note that we have recently undertaken a target pilot compensation study, which we hope may help inform future rulemakings.

Pilots and pilot associations also offered comments pertaining to retention and attrition. The Western Great Lakes Pilots Association [16] presented a series of letters from pilots, including resignation letters and previous docket comments, explaining why they were resigning from the Association. These comments cited various reasons, including the risk of a downturn in traffic,[17] and a lack of guaranteed time with their families.[18] Similarly, other pilotage associations stated that Great Lakes pilots were paid substantially less than other U.S. marine pilots, and noted that certain pilots had left the Great Lakes for less prestigious positions in other areas.[19]

The Coast Guard has recognized the pilotage recruitment and retention

[11] Docket # USCG–2016–0268–0037, p.1.

[12] Docket # USCG–2016–0268–0028, p.2.

[13] Docket # USCG–2016–0268–0033, p.12.

[14] Docket # USCG–2016–0268–0033, p.12, citing ''Memorandum of Understanding, Great Lakes Pilotage, between the United States Coast Guard and the Great Lakes Pilotage Authority,'' Art. 7.

[15] 81 FR at 11908 (March 7, 2016).

[16] Docket # USCG–2016–0268–0027.

[17] Docket # USCG–2016–0268–0027, letter from Bruce Dunlap, Paul Radtke.

[18] Docket # USCG–2016–0268–0027, letter from Karl Hardesty, Rick Montoya.

[19] Docket # USCG–2016–0268–0027, letters from the Associated Branch Pilots of New Orleans, Association of Maryland Pilots.

challenges in the Great Lakes, but believes that the changes we have implemented in recent rulemakings have addressed those concerns. We note that while over the preceeding 10 years 31 pilots in the Great Lakes region voluntarily left pilot positions, only one pilot has left voluntarily in the past 3 years, a rate which is comparable to the extremely low voluntary quit rate for other U.S. pilotage associations. We believe that the new compensation levels, workload, ratemaking structures, and improvements to the billing scheme introduced in recent rulemakings have reduced attrition, and we are working closely with all stakeholders to ensure that wages, working conditions, and infrastructure concerns are addressed to increase the likelihood that well-trained pilots will remain with their associations until retirement.

Using Other Pilot Compensation as a Benchmark for GL Pilot Compensation

Many commenters suggested that the Coast Guard should be using salaries for other U.S. pilots as a benchmark, rather than Canadian salaries, and noted that U.S. pilots in other areas often make far more in compensation. One commenter, the President of the Associated Branch Pilots for the Port of New Orleans, noted that the average pilot compensation for a pilot in that association was $459,051, and stated that a $312,000 target compensation level ''would leave the Great Lakes pilots among the lowest paid pilots in America.'' [20] One commenter noted that using other U.S. pilot groups as a benchmark would make a comparison simpler, as the target compensation for many American pilots is set by state rate commissions and is publically available.[21] Similarly, one commenter stated that the Great Lakes pilot associations compete with other American associations for recruits, and thus those associations would be a more appropriate benchmark for compensation.[22] Several commenters [23] provided figures on the total compensation of pilots in some other American systems, stating that those figures were often significantly over $400,000 annually per pilot, which is higher than the compensation target the Coast Guard has set for Great Lakes pilots.

Conversely, the Great Lakes Shippers Association argued that the Coast Guard should not use the compensation of other American pilots as a basis for computing target compensation. The shipping association, as part of its comments on the use of a compensation benchmark,[24] stated that the Coast Guard should not equalize pilot compensation across disparate geographies.[25] The commenter argued that shipping is an inherently local affair, and that pilots are experts in particular bodies of water, so a comparison to other pilotage association would not necessarily be accurate. The commenter stated that Great Lakes pilotage ''differs significantly from pilotage anywhere else in the United States as it includes vast stretches of open, unobstructed water that require little or no pilot input, as well as being subject to an abbreviated, rather than year-round, shipping season.'' [26] The commenter also stated that there are both historical and practical reasons that local pilotage boards and commissions set rates locally, and that given differing barriers to entry, differing duration and intensity of pilotage duties, and other local factors means that ''the value and cost of pilotage services in one location differs significantly in degree and kind from the value and cost of pilotage services in another location.'' [27]

We recognize that there are a wide variety of factors that could be used for justifying both more and less compensation than pilots in other U.S. jurisdictions or Canadian pilots. While we believe, at this time, that a comparison with Canadian Great Lakes pilots offers the closest analogue, we are fully aware that there are still significant differences in the U.S. and Canadian compensation work schedules and compensation schemes, and as such, we intend to undertake a compensation study to better understand the wide array of factors at work. While that study should inform a future ratemaking, we believe that the current compensation target is a reasonable and comparable level because it is based on pilots that do substantially similar work on the same bodies of water. Our goal is to establish a target pilot compensation benchmark that promotes recruitment and retention without posing undue financial burden on shipping companies. We will ensure that we maintain transparency in our processes and calculations to establish and refine this benchmark.

10-Year Compensation Benchmark

One item addressed in the NPRM was new language in § 404.104 that would allow the Director to set compensation to a benchmark for a 10-year period. We stated that, when setting the compensation benchmark, we would set it based on the most relevant available non-proprietary information such as wage and benefit information from other pilotage groups (in the current case, based on Canadian Great Lakes pilot compensation cited in the 2016 NPRM). Subsequently, for a period of up to 10 years, the target compensation number would simply be adjusted for inflation. We noted that this would promote target compensation stability and rate predictability. As seen in the NPRM, where the Coast Guard noted a significant change in the relative value of the Canadian dollar that could have changed the target compensation figure significantly, resetting the compensation benchmark repeatedly could lead to large swings in year-to-year targets and have negative effects on the stability of pilot earnings.

Having reviewed the various comments on this issue as well as considered the ratemaking methodology generally, we believe that using a compensation benchmark to establish annual adjustments in target compensation is an efficient means to ensure rate stability. We believe that, at any time after a compensation benchmark is established, there may be grounds to review it. Use of a compensation benchmark promotes rate and compensation stability, while providing the Coast Guard with the flexibility to make improvements over time based on market conditions. For this reason, we are finalizing the proposed language in § 404.104.

Several commenters mentioned the compensation benchmark, but instead of discussing the use of a compensation benchmark generally, they discussed the inputs into the current compensation benchmark. One commenter argued that the Coast Guard should not base the compensation benchmark on the average compensation for other U.S. pilots. We note that this was never the proposal, and we merely proposed to use a benchmark. In the NPRM, we wrote that ''the compensation benchmark would be based on the most relevant available non-propriety information *such as* wage and benefit information from other pilotage groups'' [emphasis added].[28] We note that despite the use of that example of what a particular compensation benchmark

[20] Docket # USCG–2016–0268–0003, p.1.

[21] Docket # USCG–2016–0268–0028, p.6.

[22] Docket # USCG–2016–0268–0028, p.6.

[23] Docket # USCG–2016–0268–0028, p.7.

[24] We discuss the issue of the general use of a 10-year compensation benchmark in a separate section, but the commenter included their comments on the specific number for pilot compensation under that heading.

[25] Docket # USCG–2016–0268–0033, p.26–27.

[26] Docket # USCG–2016–0268–0033, p.28.

[27] Docket # USCG–2016–0268–0033, p.27.

[28] 81 FR 72027 (December 19, 2016).

could be, we did not propose to use another U.S. pilot group outside of the Great Lakes to establish target pilot compensation in our rulemaking. In the 2017 NPRM, the Coast Guard did not propose to set a new compensation benchmark, but instead merely proposed continuing to use the 2016 target compensation figure in its calculations, which was based on the comparison with Canadian salaries.

As discussed in the NPRM, we believe that the use of a compensation benchmark is a better method for starting the calculation for the compensation of pilots, as opposed to undertaking a complete re-evaluation of the compensation structure for U.S. pilots each year. The primary rationale is the promotion of workforce stability, which is necessary for the system to provide safe, efficient, and reliable pilotage. The Great Lakes pilotage system needs target pilot compensation stability to achieve and maintain workforce stability. As is common practice in many sectors of employment, levels of compensation that are highly volatile can lead to difficulty attracting and retaining qualified employees. Given the high skill levels and lengthy training requirements required of Great Lakes pilots, as well as the dynamic nature of the commodities trade that makes up much of the shipping traffic in the area, we do not believe that a full re-evaluation of compensation every year is conducive to maintaining a system of safe and reliable pilotage.

Request To Study Additional Items

Many commenters,[29] citing the high cost of pilotage, requested that the Coast Guard undertake additional studies of various related issues. Specifically, these commenters almost uniformly requested that the Coast Guard conduct additional research into (1) pilot recruitment and retention factors; (2) the role of pilotage rates on modal shift and Seaway competitiveness; and (3) efficiencies that can be achieved by streamlining the pilotage system.

The Coast Guard realizes that these issues are important, and may warrant more in-depth study. To that effect, the Coast Guard has commissioned a compensation study and an economic impact study to better inform our ratemaking process. Until these studies are completed, we are proceeding with the ratemaking methodology we describe in this final rule. We remain open to persons providing information about these important issues, and note that such information can always be provided to the Coast Guard or to the Great Lakes Pilotage Advisory Committee (GLPAC) outside the context of a particular ratemaking action.

Audit Deadline

Another item the Coast Guard discussed in its NPRM was a proposal to adjust § 403.300(c) to require submission of an unqualified audit by January 31 of each year, rather than the existing requirement that it be submitted on April 1. Our goal was to expedite the availability of audit information so it could be used in the publication of the NPRM by the next summer. The net result would be to reduce the delay between the actual expenses and their recoupment from 3 to 2 years. We requested comment on whether such a deadline would be feasible.

One commenter [30] supported the proposal, stating that they ''favor any measures that reduce the lag between receipt of actual revenue and expense data and rate-setting decisions.'' The commenter stated the Coast Guard should use the most recently available data to determine the target revenue. They argued that the Coast Guard should set up systems to document the invoices and source forms sent in throughout the shipping season, and then tally this information and use it as a point of validation when setting the target revenue in the following year's NPRM. The commenter also stated that the pilots have indicated they can produce monthly revenue reports for Coast Guard use, and that this information can be used to inform the Coast Guard's decision to terminate a surcharge or to revise rates to account for an over-generation of revenue.

However, most comments, including those from the 3 U.S. Great Lakes pilot associations on this issue, took the opposite stance. These comments were unanimously opposed to the proposed January 31 deadline stating that preparing audited financial statements by that date would be infeasible due to the tight time constraints, or if required, would be extremely expensive. Commenters noted that the requirement to provide numbers by this earlier date would require extensive effort and significantly increase costs, and we did not receive any recommendations for an alternate date.

Based on the feedback we received, we are not making any changes to the audit deadline at this time. We agree that we would like to reduce the lag time between the revenue and expense audits and the information we use for our rulemakings. However, based upon the comments from the pilot associations, at this time we do not believe that the reported costs of accelerating the reporting date to January 31 would be worth the reported increase in expense. We do note, however, that we will seek further input on this topic at a future GLPAC meeting.

Surcharge Shutoff Provision

In the NPRM, the Coast Guard proposed adding a requirement to the surcharge regulation in § 401.401. We proposed that once a pilot association collects the amount of money allowable for recoupment, the pilot association's authorization to collect that surcharge would terminate for the remainder of the shipping season. We proposed this to prevent surcharge receipts from exceeding the target amount, which will eliminate the need to make subsequent adjustments to the operating expenses for the following year.

One commenter [31] stated that the ''Industry Commenters support this proposal.'' The commenter suggested the Coast Guard should verify that the surcharge funds are only used for the purposes as outlined by the Coast Guard. The commenter stated that the ratepayers ''paid over $667,000 in excessive training fees collected by the pilot associations'' in 2015. They also stated it is in the ratepayers' interests that the Coast Guard not allow excessive fees, as there is no mechanism currently in place to repay these funds to the ratepayers. The commenter also recommended that the Coast Guard verify that the training fees are properly applied to training new pilots in each District,[32] and suggested the Coast Guard could achieve this by requiring the inclusion of the training fee information as a separate line item in the financial statements.

Based on the comments we received, we are finalizing the additions to the surcharge provision in § 401.401. We also note that the existing audit requirements for operating expenses include a line item for training expenses, so that it is clear how much money is expended for that purpose. Because of the three-year delay in the use of audited expenses, the training costs, which were introduced in the 2015 ratemaking for the Saint Lawrence Seaway Pilots Association, will be incorporated into, and adjusted for, the operating expenses for the 2018 ratemaking. The surcharge was expanded to the Lake Pilots Association and Western Great Lakes Pilots

[29] See, *e.g.,* docket # USCG–2016–0268–0019, p. 2; Docket # USCG–2016–0268–0020, p. 2.

[30] Docket # USCG–2016–0268–0033, p. 25.

[31] Docket # USCG–2016–0268–0033, p. 24.

[32] Docket # USCG–2016–0268–0033, p. 25.

Association in 2016. Therefore, these expenses will not be addressed until the 2019 Annual Rulemaking for these two associations.

Iroquois Lock

Finally, in the NPRM, we proposed adding a mandatory change point at the Iroquois Lock. While we did receive comments as to how this would affect the total number of pilots needed for the rate-setting calculations (which is discussed below), we did not receive any comments on the merits of the idea itself. We are therefore finalizing this provision without change in this final rule.

B. Rate Calculation Issues

In this section, we discuss the comments related to the specific ratemaking at issue for 2017, as well as lay out the method by which we arrived at the final 2017 rates. The ratemaking process is specified in 46 CFR 404, 101 through 110. Each section below corresponds to one of the sections in the CFR.

1. Recognition of Operating Expenses

Step 1 in our ratemaking methodology requires that the Coast Guard review and recognize the previous year's operating expenses (§ 404.101). We reviewed the independent accountant's financial reports for each association's 2014 expenses and revenues.[33] In the NPRM, we accepted the final findings on the 2014 audit of association expenses, and presented the recognized expenses for each District.

We received information with regard to lobbying expenses associated with American Pilots Association (APA) dues. We attributed 15 percent of APA dues to legal fees in the NPRM. This should have been 5 percent.[34] We have adjusted the operating expenses to reflect this change.

We received comments from the three U.S. Great Lakes Pilot Associations regarding the exclusion of legal fees from recognized operating expenses. Specifically, in our review of the 2014 operating expenses, we did not recognize certain legal expenses from K&L Gates, totaling $47,256. The commenters stated that they did not understand why these expenses were not recognized and requested that we reclassify these expenses as allowable fees. We disagree that these K&L Gates legal fees should be included. We disallowed the fees for K&L Gates because we could not determine whether or not these funds were used for lobbying or legal services. Per the requirements in paragraph 404.2(b)(6), lobbying fees are not allowable expenses for reimbursement. We contacted the pilot associations to request additional documentation that these fees were associated with legal services and not lobbying, but we did not receive any documentation to show which costs were attributable to legal services, and which were attributable to lobbying work.

In addition, the three pilot associations requested that we recognize legal expenses in the amount of $75,049 incurred in their litigation against the Coast Guard regarding the 2014 final rule. This amount represents the difference between legal fees incurred and the amount the Coast Guard paid in its settlement with the pilot associations. Pursuant to § 404.2(6), expenses incurred against the United States are not recoupable as recognized operating expenses. The pilots argue that this section of the regulations was improperly adopted in the 2016 final rule. We do not believe that the 2017 Annual Rulemaking is the appropriate venue to address the procedural aspects of the 2016 final rule.

A commenter from the Lakes Pilots Association noted that certain operating expenses, relating to the payment of applicant pilot salaries, had been omitted from the operating expenses of District Two. Specifically, the commenter noted that payment of training salaries should be considered as an operating expense instead of treated as pilot compensation. We agree that as applicant pilots are not counted as pilots for the purposes of calculating general pilot compensation, and this occurred prior to the use of surcharges to pay for applicant pilot salaries, these salaries should be recognized as an operating expense. The surcharge provision for funding applicant pilots did not impact rates until 2015 and the 2014 Annual Rulemaking did not provide funding for this activity. Therefore, we added the amount, $281,588, to the operating expenses of District Two to recoup the 2014 expense incurred in training applicant pilots that year.

The recognized expenses for the various Districts are as follows:

TABLE 1—RECOGNIZED EXPENSES FOR DISTRICT ONE

Reported expenses for 2014	District One		Total
	Designated	Undesignated	
	St. Lawrence River	Lake Ontario	
Operating Expenses:			
Other Pilotage Costs:			
Pilot subsistence/travel	$302,547	$228,222	$530,769
Applicant Pilot subsistence/travel	0	12,996	12,996
License insurance	20,231	22,480	42,711
Applicant Pilot license insurance	0	1,760	1,760
Payroll taxes	78,067	64,130	142,197
Applicant Pilot payroll taxes	0	0	0
Other	479	378	857
Total other pilotage costs	401,324	329,966	731,290
Pilot Boat and Dispatch Costs:			
Pilot boat expense	130,741	103,173	233,914
Dispatch expense	0	0	0
Payroll taxes	9,797	7,732	17,529

[33] These reports are available in the docket for this rulemaking, see Docket # USCG–2016–0268–0056 through 0058.

[34] Docket # USCG–2016–0268–0037, p. 2.

TABLE 1—RECOGNIZED EXPENSES FOR DISTRICT ONE—Continued

Reported expenses for 2014	District One		Total
	Designated	Undesignated	
	St. Lawrence River	Lake Ontario	
Total pilot and dispatch costs	140,538	110,905	251,443
Administrative Expenses:			
Legal—general counsel	2,173	1,505	3,678
Legal—shared counsel (K&L Gates)	8,783	6,932	15,715
Legal—Coast Guard litigation	12,794	10,098	22,892
Insurance	21,829	17,226	39,055
Employee benefits	7,570	5,974	13,544
Payroll taxes	5,281	4,167	9,448
Other taxes	7,262	5,731	12,993
Travel	648	512	1,160
Depreciation/auto leasing/other	48,094	31,820	79,914
Interest	13,713	10,821	24,534
APA Dues	12,444	11,996	24,440
Utilities	8,916	418	9,334
Salaries	52,121	41,130	93,251
Accounting/Professional fees	5,142	4,058	9,200
Pilot Training	6,427	5,074	11,501
Applicant Pilot training	0	0	0
Other	8,866	6,546	15,412
Total Administrative Expenses	222,063	164,008	386,071
Total Operating Expenses (Other Costs + Pilot Boats + Admin)	763,925	604,879	1,368,804
Proposed Adjustments (Independent CPA):			
Pilot subsistence/travel	−15,712	−12,401	−28,113
Payroll taxes	−87	−68	−155
Applicant Pilot payroll taxes	0	2,347	2,347
Total CPA Adjustments	−15,799	−10,122	−25,921
Proposed Adjustments (Director):			
APA Dues	−622	−600	−1,222
2015 Surcharge Adjustment *	−92,766	−72,887	−165,653
Legal—shared counsel (K&L Gates)	−8,783	−6,932	−15,715
Legal—Coast Guard litigation	−12,794	−10,098	−22,892
Total Director's Adjustments	−114,965	−90,517	−205,482
Total Operating Expenses (OpEx + Adjustments)	633,161	504,240	1,137,401

* District One collected $493,682 with an authorized 10 percent surcharge in 2015. The adjustment represents the difference between the collected amount and the authorized amount of $328,029 authorized in the 2015 final rule.

TABLE 2—RECOGNIZED EXPENSES FOR DISTRICT TWO

Reported expenses for 2014	District Two		Total
	Undesignated	Designated	
	Lake Erie	SES to Port Huron	
Operating Expenses:			
Other Pilotage Costs:			
Applicant pilot salaries	$112,635	$168,953	$281,588
Pilot subsistence/travel	148,424	222,635	371,059
Applicant Pilot subsistence/travel	9,440	14,160	23,600
License insurance	52,888	79,333	132,221
Applicant Pilot license insurance	5,738	8,608	14,346
Payroll taxes	76,903	115,354	192,257
Applicant Pilot payroll taxes	8,344	12,516	20,860
Other	1,053	1,579	2,632
Total other pilotage costs	415,425	623,138	1,038,563
Pilot Boat and Dispatch Costs:			
Pilot boat expense	173,145	259,718	432,863
Dispatch expense	10,080	15,120	25,200
Employee benefits	72,662	108,992	181,654
Payroll taxes	8,472	12,707	21,179

TABLE 2—RECOGNIZED EXPENSES FOR DISTRICT TWO—Continued

Reported expenses for 2014	District Two		Total
	Undesignated	Designated	
	Lake Erie	SES to Port Huron	
Total pilot and dispatch costs	264,359	396,537	660,896
Administrative Expenses:			
Legal—general counsel	2,680	4,020	6,700
Legal—shared counsel (K&L Gates)	4,984	7,476	12,460
Legal—Coast Guard litigation	8,371	12,557	20,928
Office rent	26,275	39,413	65,688
Insurance	9,909	14,863	24,772
Employee benefits	23,002	34,504	57,506
Payroll taxes	5,001	7,501	12,502
Other taxes	21,179	31,769	52,948
Depreciation/auto leasing/other	17,784	26,677	44,461
Interest	3,298	4,948	8,246
APA Dues	8,664	12,996	21,660
Utilities	15,429	23,144	38,573
Salaries	46,008	69,013	115,021
Accounting/Professional fees	9,410	14,115	23,525
Pilot Training	0	0	0
Other	11,343	17,012	28,355
Total Administrative Expenses	213,337	320,008	533,345
Total Operating Expenses (Other Costs + Pilot Boats + Admin)	893,121	1,339,683	2,232,804
Proposed Adjustments (Independent CPA):			
Depreciation/auto leasing/other	3,322	4,982	8,304
Total CPA Adjustments	3,322	4,982	8,304
Proposed Adjustments (Director):			
APA Dues	−433	−650	−1,083
2015 Surcharge Adjustment *	−85,782	−128,672	−214,454
Legal—shared counsel (K&L Gates)	−4,984	−7,476	−12,460
Legal—Coast Guard litigation	−8,371	−12,557	−20,928
Total Director's Adjustments	−99,570	−149,355	−248,926
Total Operating Expenses (OpEx + Adjustments)	796,873	1,195,310	1,992,183

* D2 collected $540,284 with an authorized 10 percent surcharge in 2015. The adjustment represents the difference between the collected amount and the authorized amount of $325,830 authorized in the 2015 final rule.

TABLE 3—RECOGNIZED EXPENSES FOR DISTRICT THREE

Reported expenses for 2014	District Three		Total
	Undesignated	Designated	
	Lakes Huron, Michigan and Superior	St. Mary's River	
Operating Expenses:			
Other Pilotage Costs:			
Pilot subsistence/travel	$424,935	$141,645	$566,580
Applicant pilot subsistence/travel	24,608	8,203	32,811
License insurance	14,304	4,768	19,072
Payroll taxes	110,567	36,856	147,423
Applicant pilot payroll taxes	9,082	3,027	12,109
Other	12,268	4,090	16,358
Total other pilotage costs	595,764	198,589	794,353
Pilot Boat and Dispatch Costs:			
Pilot boat costs	593,360	197,787	791,147
Dispatch costs	133,787	44,596	178,383
Payroll taxes	31,432	10,477	41,909
Total pilot and dispatch costs	758,579	252,860	1,011,439
Administrative Expenses:			
Legal—general counsel	15,386	5,129	20,515
Legal—shared counsel (K&L Gates)	15,900	5,300	21,200
Legal—Coast Guard litigation	23,422	7,807	31,229

TABLE 3—RECOGNIZED EXPENSES FOR DISTRICT THREE—Continued

Reported expenses for 2014	District Three		Total
	Undesignated	Designated	
	Lakes Huron, Michigan and Superior	St. Mary's River	
Office rent	7,425	2,475	9,900
Insurance	11,050	3,683	14,733
Employee benefits	113,890	37,964	151,854
Other taxes	129	43	172
Depreciation/auto leasing/other	28,802	9,601	38,403
Interest	2,858	953	3,811
APA Dues	20,235	6,745	26,980
Dues and subscriptions	3,975	1,325	5,300
Utilities	33,083	11,028	44,111
Salaries	95,577	31,859	127,436
Accounting/Professional fees	27,492	9,164	36,656
Pilot Training	0	0	0
Other	9,318	3,106	12,424
Total Administrative Expenses	408,542	136,182	544,727
Total Operating Expenses (Other Costs + Pilot Boats + Admin)	1,762,885	587,631	2,350,516
Proposed Adjustments (Independent CPA):			
Pilot subsistence/Travel	−15,595	−5,198	−20,793
Payroll taxes	5,949	1,983	7,932
Pilot boat costs	−62,748	−20,916	−83,664
Legal—shared counsel (K&L Gates)	−1,590	−530	−2,120
Dues and subscriptions	−3,975	−1,325	−5,300
Other expenses	−375	−125	−500
Total CPA Adjustments	−78,334	−26,111	−104,445
Proposed Adjustments (Director):			
APA Dues	−1,012	−1,012	−2,024
Surcharge Adjustment*	−216,734	−72,245	−288,979
Legal—shared counsel (K&L Gates)	−14,310	−4,770	−19,080
Legal—Coast Guard litigation	−23,422	−7,807	−31,229
Total Director's Adjustments	−255,478	−85,834	−341,312
Total Operating Expenses (OpEx + Adjustments)	1,429,073	475,687	1,904,760

*D3 collected $615,929 with an authorized 10 percent surcharge in 2015. The adjustment represents the difference between the collected amount and the authorized amount of $326,950 authorized in the 2015 final rule.

2. Projection of Operating Expenses

Step 2 in our ratemaking methodology requires that the Coast Guard project next year's operating expenses, and adjust for inflation or deflation (§ 404.102). In the NPRM, we adjusted for inflation and projected expenses for 2017 using the Bureau of Labor Statistics' data from the Consumer Price Index for the Midwest Region of the United States [35] and reports from the Federal Reserve.[36] We did not receive any comments on this step and thus are adjusting operating expenses for inflation as described in § 404.102. We do note that, based on updated information from the Bureau of Labor Statistics, the 2016 inflation modification has been adjusted to 0.8%.

TABLE 4—CALCULATION OF PROJECTED EXPENSES

District One	Area 2 (Undesignated)	Area 1 (Designated)	Total
Total Operating Expenses (Step 1)	$633,161	$504,240	$1,137,401
2015 Inflation Modification (@ −0.5%)	−3,166	−2,521	−5,687
2016 Inflation Modification (@0.8%)	5,040	4,014	9,054
2017 Inflation Modification (@2.1%)	13,336	10,620	23,956
Adjusted 2016 Operating Expenses	648,371	516,353	1,164,724

[35] Available at *https://www.bls.gov/regions/midwest/data/consumerpriceindexhistorical_midwest_table.pdf.*

[36] Available at *https://www.federalreserve.gov/monetarypolicy/fomcprojtabl20160316.htm.*

District Two	Area 4 (Undesignated)	Area 5 (Designated)	Total
Total Operating Expenses (Step 1)	796,874	1,195,310	1,992,183
2015 Inflation Modification (@ −0.5%)	−3,984	−5,977	−9,961
2016 Inflation Modification (@0.8%)	6,343	9,515	15,858
2017 Inflation Modification (@2.1%)	16,784	25,176	41,960
Adjusted 2016 Operating Expenses	816,016	1,224,024	2,040,040
District Three	**Areas 6 and 8 (Undesignated)**	**Area 7 (Designated)**	**Total**
Total Operating Expenses (Step 1)	1,429,073	475,687	1,904,760
2015 Inflation Modification (@ −0.5%)	−7,145	−2,378	−9,523
2016 Inflation Modification (@0.8%)	11,375	3,786	15,162
2017 Inflation Modification (@2.1%)	30,099	10,019	40,118
Adjusted 2016 Operating Expenses	1,463,402	487,114	1,950,516

3. Calculation of Number of Pilots

Step 3 in our ratemaking methodology requires that the Coast Guard determine the number of pilots needed to complete all assignments (§ 404.103). In the NPRM, we proposed to modify our pilotage demand calculation to focus on the pilot work cycle, including elements such as travel, rest, pilot boat time, and other items in addition to the time spent on the bridge of a ship. Based on the comments received, we have determined that transitioning to this model, in which all traffic is treated equally for the purpose of determining the number of pilots needed, would result in traffic delays, overwork of pilots, and possible compromises to safety on the Great Lakes. For these reasons, we are not finalizing the proposed changes to § 404.103.

It is important to note that Step 3 produces two different sets of numbers associated with the respective sections of § 404.103. The first number, described in paragraphs (a) through (c), is used to establish the number of pilots the Coast Guard believes are needed to provide safe and efficient pilotage service in each area. This number provides guidance to pilot associations and the Director of Great Lakes Pilotage in making determinations about hiring decisions and the authorization of new pilots. The second number, described in paragraph (d), is based on the number of persons applying for pilot positions under 46 CFR 401. For purposes of setting Great Lakes pilotage rates in § 401.405, only the number derived from the 404.103(d) analysis is used in the ratemaking calculations.

Most commenters provided comments on the model used to determine the number of pilots needed. In the NPRM, the Coast Guard proposed replacing the existing staffing model, which we call the 2016 final rule staffing model, with a model that analyzed shipping traffic throughout the entire shipping season, and which we are calling the 2017 NPRM staffing model.[37] We stated that we were proposing to modify the pilotage demand calculation to incorporate the ''number of assignments we reasonably expect pilots to be able to complete during the 9-month shipping season instead of during peak pilotage demand.'' (*See* 81 FR 72014–5). While we recognized that during the opening and closing of the season, there are significant spikes in traffic that necessitate far more pilotage services, the Coast Guard believed that this seasonal peak would be adequately covered by the fact that pilots would work an extra 10 days (30 percent) per month during those months to cover the increased traffic.

The functional result of the proposed change to the staffing model was to reduce the total number of pilots needed to service the Great Lakes system by 5, from a total of 54 under the previous staffing model to a total of 49 under the proposed new staffing model. We received a large number of comments, especially from pilots, regarding how this change in modeling could affect their workload, lifestyle, stress levels, and overall retention rates, as discussed below.

The 2017 NPRM staffing model had a number of substeps and we received comment on nearly all of these substeps. The substeps and associated comments are discussed below.

Substep 1: Calculate Pilot Cycle

The first step of the process is to determine how long it takes for a pilot to undertake a full piloting cycle, that is, to board a ship, provide pilotage services, disembark, rest, travel back to a port location, and complete any administrative tasks associated with providing pilotage service. We used the ''Average-Through Transit Time'' between change points [38] for an area or assignment segment that is impacted by a mandatory change point, and then added additional time for travel, delay, administrative needs, and mandatory rest, to come up with the total amount of time for a ''Pilot Cycle.''

One commenter [39] suggested that the Coast Guard had made an error in its calculation of the number of pilots needed as a result of the addition of the Iroquois Lock. As noted, in the NPRM, the Coast Guard proposed to add a mandatory change point to District One, Area 1, at the Iroquois Lock. We proposed this additional change point to enhance safety on long segments, noting that the transit time between Snell Lock and Cape Vincent takes about 11 hours under ideal circumstances, and that we wanted to limit a U.S.-registered pilot's assignment time to 8 hours in designated waters to mitigate fatigue.[40] As a result of adding this change point, we modified how we calculated the number of pilots for the Designated Waters of District One (St. Lawrence River).

The commenter noted that while the Coast Guard had increased the number of pilot assignments to account for the mandatory change point at Iroquois Lock, it had not adjusted the Average-Through Transit Time to account for the shorter trips due to the change point. The commenter asserted that instead of using a figure of 10.8 hours, the Coast Guard should replace that figure with a transit time of 6 hours. This change

[37] We note that commenters often refer to these models as the ''peak'' and ''average'' staffing models, although we feel such nomenclature is imprecise, as both models are designed to accommodate traffic at higher-than-average demand periods.

[38] The Average-Through Transit Time is the number of hours it takes for a vessel to fully transit through an area.

[39] Docket #USCG–2016–0268–0033, p. 14.

[40] 81 FR 72016 (December 19, 2016).

would have the effect of lowering the Pilot Cycle to 20.0 hours (from the current 25.2) and the number of additional pilots needed from 3.4 to 2.7. The commenter recommended this new figure be incorporated into the Coast Guard's calculations.

We believe that this comment is justified, and that under conditions where we are calculating transit through times for a single pilot, this would be a reasonable change. However, we are not adopting the 2017 NPRM staffing model, but we are retaining the 2016 final rule staffing model. In such a model, we calculate transit through the Iroquois Lock using double pilotage, where the fatigue issue is mitigated by a second pilot. For that reason, under double pilotage, pilots do not have to change at the Iroquois Lock, and we can continue to use the full 10.8 hour average through transit time.

One commenter [41] stated the NPRM inconsistently relied on bridge hours and cycle time in determining the number of pilots needed in each District, and that instead of using the Average-Through Transit Time as a basis for the pilot cycle, we should use an average trip time. The commenter gave an example for District Two Area 4. The NPRM uses cycle time analysis to determine that District Two, Area 4 needs seven pilots to handle the historic average assignments in this area. These seven pilots should complete an average of 73 assignments with an Average-Through Transit Time of 17 hours each. The commenter stated the total time on task for this District would be 8,687 hours. However, this figure would differ from the Coast Guard's calculation of average traffic, used to calculate revenue, which found the average time on task as 5,174 hours per year using the average number of bridge hours from 2007 to 2015. The commenter stated that the Coast Guard's ''inconsistent reliance on bridge hours raises the hourly rate in the undesignated waters of District Two from $319 to $537.'' [42] The commenter stated that the Coast Guard cannot rely on cycle time to increase the projected number of pilots needed and then use the bridge hours to calculate the hourly rate.

We acknowledge that we use different bridge hour inputs when calculating the Average-Through Transit Time and the calculation for the expected traffic. For staffing purposes, we are assuming that each assignment will go between the mandatory change points in a given pilotage district to ensure that we have enough pilots to handle traffic. This is a situation where efficiency and safety are in conflict. We believe the safety concerns associated with having too few pilots outweigh the financial burden on the rate payers. The methodology established in the 1990s used a similar bridge hour standard in multiple steps throughout the ratemaking process. This caused problems with recruitment and retention, revenue shortfalls, lack of training, and a resistance to infrastructure investment and maintenance. We intentionally decided to only include a historic bridge hour input in determining the hourly rate for services and use the number of assignments (assuming that each assignment would be average maximum time between two change points) for staffing.

However, we realize that this system of basing the pilot cycle on the transit through time, as opposed to the average trip time, is better suited to the 2016 final rule staffing model, rather than the 2017 NPRM staffing model. As we stated in the 2016 final rule, it makes sense to use the full transit through time for conditions at the opening and close of the season, as a high percentage of trips during that time are through transit trips to ensure the pilot associations are sufficiently staffed to provide adequately rested pilots during the time of the season when the conditions are most challenging. Conversely, when calculating the total revenues we expect the associations to collect, we use the historic traffic data, which provides a more accurate accounting of revenue. Unlike the issue of staffing of vessels, it does not make a difference when revenue is collected during the shipping season.

As the commenter points out, the transition from 2016 final rule staffing model to the 2017 NPRM staffing model, without reevaluating the full ratemaking methodology, can cause these types of logical discrepancies. This is one reason that we are not adopting the 2017 NPRM staffing model in the final rule, and are instead relying on the 2016 final rule staffing model to determine an adequate capacity.

Substep 2: Calculate Maximum Number of Assignments per Pilot

In the next part of the 2017 NPRM staffing model, we divided the Seasonal Availability (the total amount of time which we expect a pilot to be available, which is 4,800 hours, or 200 days [43]) by the Pilot Cycle to calculate a theoretical maximum number of assignments per pilot. We realize that this number is highly theoretical, and assumes no shipping delays, inclement weather conditions, traffic, administrative issues, and that a new ship is readily available each time a pilot arrives at port. As seen below, the number of actual assignments a pilot can perform during the shipping season is much lower.

Substep 3: Calculate Estimated Number of Assignments per Pilot

In the third step, we multiplied the theoretical maximum number of assignments per pilot by an ''efficiency factor'' of 50 percent, which is based upon the Coast Guard's 2013 ''Bridge Hour and Methodology Study Final Report,'' [44] to arrive at a total number of projected assignments per pilot.

We received comments criticizing the efficiency factors from a variety of sources. One commenter stated that it was ''nothing more than a placeholder number from a study rejected by both pilots and industry at GLPAC.'' [45] The commenter requested that the Coast Guard abandon its existing methodology for determining the number of pilots needed in an area. In its place, the commenter suggested the Coast Guard determine the number of pilots needed by either directly using the recent average number of assignments per pilot, or by increasing the efficiency ratio in each District to bring the anticipated number of assignments up to average levels. The commenter did not specify what the ''recent average number of assignments per pilot'' was, or what change to the efficiency ratio would be needed to achieve this. However, the commenter suggested that the Coast Guard could gather information that would allow us to more directly determine average pilot assignments by using invoices and source forms provided by pilots.[46]

While we understand the concept of this proposal, we do not agree that the historic average of assignments is a useful tool for the following reasons. The mid-1990s methodology excluded many of the pilot assignment cycle time inputs to determine a seasonal workload. Additionally, the goal of providing 10 days of recuperative rest for 7 months of the season was introduced in the 2016 Annual Rulemaking, in response to National Transportation Safety Board recommendations, letters from Congress asking us to address recruitment and

[41] Docket #USCG–2016–0268–0033, p. 17.

[42] Docket #USCG–2016–0268–0033, p. 17.

[43] This number is based on a 270-day shipping season, with an allowed 10 days off each non-peak month.

[44] Available in the docket, see Docket #USCG–2016–0268–0059.

[45] Docket #USCG–2016–0268–0037, p. 3.

[46] Docket #USCG–2016–0268–0033, p. 19.

retention, and a recommendation from the July 2014 GLPAC meeting. For these reasons, we do not expect the historical average of assignments per pilot to be an accurate reflection of the estimated future counts based on the current staffing model. We may consider using historical data in a future rulemaking if we compile sufficient data to make an accurate comparison.

We believe the efficiency factor of 0.5 is supported by the Bridge Hour and Methodology Study Final Report. In response to concerns about the methodology used to calculate shipping rates, GLPAC unanimously recommended that an independent party conduct a comprehensive review of the methodology established in the mid-1990s to calculate pilotage rates. GLPAC reviewed the scope of the study, entitled ''Bridge Hour and Methodology Study Final Report,'' expanded the study's scope, and unanimously approved the scope of the study. This included one-on-one meetings with all of the stakeholders, two focus groups, and additional GLPAC meetings. Based on the study's findings, the Coast Guard developed the efficiency factor. The study recommended that we consider an efficiency factor between 0.4 and 0.6 for staffing. However, we provided additional guidance with regard to mandatory change points and required rest between assignments in 2014, incorporated changes based upon recommendations from the National Transportation Safety Board in 2015, and implemented significant changes to the methodology in 2016 Annual Rulemaking.

While the various stakeholders rejected the final recommendations of the study for different reasons, none of the criticisms of the study accused its final recommendations of being a ''placeholder.'' One group did not think the study went far enough to recommend changes that were outside of the scope of the study. Another group did not think the study went far enough to guarantee time off for the pilots or establish an acceptable compensation standard. While we are not using the efficiency factor in this final rule, we continue to believe that a 0.5 efficiency factor would be reasonable if it were being used in a staffing model.

One commenter [47] stated that the Coast Guard had used incorrect assumptions regarding efficiency, cycle time, recuperative rest, and transition planning in calculating the total average time it takes for a pilot to complete an assignment. Using as an example the Coast Guard's calculations for District Three Area 2 (which in the NPRM is listed as ''Area 7''), in which the Coast Guard calculated that the number of projected assignments per pilot was 112, the commenter said that ''assuming that these pilots can only take one assignment per day (based on the estimated 21.5 hour shipping time), each pilot in [Area 7] will only work 41 percent of a 270-day shipping season. This figure is unrealistically low.'' [48]

We disagree with the assertions that we used incorrect assumptions that resulted in an unrealistically low value. Even though the shipping season is 270 days, we only expect the pilots to be on the tour-de-role for 200 days a season (noting that they receive 10 days off per month for seven of the nine months of the season) so the correct comparison would be the number of days worked to the number of days available for assignment which is 56 percent (112 assignments/200 days). This does not seem unrealistically low, as the total cycle time is often over one day. Furthermore, we know that the demand for pilot services is not spread uniformly across the entire season, and there will be times when a pilot is idle for substantial periods of time between assignments. It is quite rare that a pilot returns after an assignment and is immediately able to start a new assignment, and that usually only occurs when there is a backlog of ships awaiting pilots. Simply put, all of this represents inherent inefficiencies in the system and, for these reasons, an efficiency factor of 50 percent is appropriate.

Substep 4: Calculate Total Number of Pilots Needed per Area

Having determined the number of assignments that a pilot can reasonably be expected to handle in a shipping season, we move to calculate how many pilots are needed to handle the amount of traffic. To do this, we divided the measured number of actual assignments (averaged over a 10-year period) by the estimated number of assignments per pilot to estimate the total number of pilots needed for a segment within an area. This produces a figure of how many pilots are needed to handle the total amount of traffic in an area.

Because of the detailed manner in which calculations of pilots are carried out, the raw calculations often end up suggesting a fractional number of pilots. In the NPRM, we stated that, ''when the calculation [of total pilots needed] results in a fraction of a pilot, we round pilot numbers up to the nearest whole pilot. We do this to avoid shortening our demand calculation and also to compensate for the role of the district presidents as both working pilots and representatives of their associations. We believe the rounding is justified to meet the needs of the staffing model and also to ensure the presidents of the pilot associations are able to effectively engage in meetings and communications with stakeholders throughout the Great Lakes region and the Coast Guard.'' (81 FR 72016–7).

Several commenters argued that our rounding convention, in which we rounded up to the nearest whole number rather than rounding up or down, unnecessarily increased the number of pilots. One commenter argued that the Coast Guard's stated rationale in the 2017 NPRM for rounding up in all situations is flawed. The commenter suggested that the Coast Guard should not build in time for meetings and outreach activities into the pilot numbers, and stated that if the pilot associations believe those are essential elements of officer functions, they should instead adjust their distribution practices to encourage those functions.[49] The commenter also stated that other aspects of the staffing model already ensure that association officers have time for other duties, citing the efficiency adjustment of 50 percent.

We disagree that the efficiency factor is the proper forum in which to address a pilot's ancillary duties, such as acting as an association president. The ability of a pilot president to engage in the running of the association, respond to Coast Guard inquiries, and attend necessary meetings further takes away from his ability to provide pilotage service. The efficiency factor adjustment is designed to determine how efficiently a pilot can undertake piloting activities, and does not address these other required activities.

The commenter also argued that the method by which the Coast Guard rounded up pilot numbers in the 2017 NPRM deviates from the 2016 NPRM.[50] In the 2017 NPRM, we proposed to round up ''when the calculations resulted in a fractional pilot.'' [51] We agree that the 2017 NPRM staffing model is different from that used in 2016. In 2016, we established the standard to round the number of pilots up or down, ''as seems most reasonable,'' using a demand number that generally allocated more pilots than needed at times of lesser traffic. This is because, under the 2016 Final Rule

[47] Docket #USCG–2016–0268–0033, p. 16.

[48] Docket #USCG–2016–0268–0033, p. 16.

[49] Docket #USCG–2016–0268–0033, p. 15, footnote 7.

[50] Docket #USCG–2016–0268–0033, p. 14.

[51] 81 FR at 72015–6.

Staffing Model, there was less of a safety concern of rounding down by a fractional pilot. We proposed a different staffing model in the 2017 NPRM, using the pilot assignment cycle to determine the actual number of pilots needed for the duration of the shipping season. Under this model, rounding down would be more likely to result in an inadequate number of properly-rested pilots available, and could result in safety concerns and traffic delays. However, as stated above, we believe that in maintaining the 2016 final rule staffing model, this issue with the rounding can be resolved.

The Coast Guard also received a comment that it had applied unnecessary rounding to the Iroquois Lock calculation, resulting in an overestimate of the number of pilots needed. The commenter wrote, ''According to GPLO calculations, without rounding, District One would need a total of 9.11 pilots to handle anticipated demand in District One, Area 1. With rounding, GLPO proposes that 11 pilots are needed.'' [52]

We believe the coalition's calculations are incorrect. In the NPRM, we calculated that District One, Area 1, would need a total of 9.11 pilots (3.4 + 5.71), for the increased number of assignments due to the mandatory change point at Iroquois Lock. However, this was rounded up to 10 not 11. This is shown in Table 9 of the NPRM, where we stated that the total number of pilots required for the designated waters of District One, Area 1, is 10.[53]

In evaluating this comment, however, we did discover one issue with our rounding convention. While the text of paragraph 404.103(c) reads, in part, ''[t]he number of pilots needed in each district is calculated by totaling the area results by district and rounding them to the nearest whole integer,'' the Coast Guard made an error in its rounding calculations by rounding the number of pilots in each area, rather than in each district. There are circumstances where this could have resulted in an increase of an extra pilot (if, for example, two areas required 0.7 pilots). We have corrected this mistake in the final rule and are rounding by district.

Reasons To Abandon 2017 NPRM Staffing Model

Several commenters discussed the proposed change from 2016 final rule staffing model to the 2017 NPRM staffing model in general terms, without referring to specific portions of the calculations.

One commenter, a Great Lakes pilot, argued that the number of pilots proposed in the 2017 calculations would fall short of what is needed to provide safe, efficient, and reliable pilotage.[54] The commenter stated that reviewing bridge hours worked in District Three over the course of the 2016 shipping season would show that pilots there had worked extra hours to keep ships moving. Furthermore, the commenter suggested that cruise ships, which are run on a much tighter schedule than cargo ships, might abandon the area if a lack of pilots caused persistent delays. However, the commenter did not provide specific recommendations on how we should modify the staffing model's methodology or suggest different inputs.

We received comments from the Western Great Lakes Pilot Association President which suggested that using an average staffing model, as proposed in the 2017 NPRM, would result in unacceptable delays for cruise ships. We recognize that the various types of vessels that employ U.S. and Canadian registered pilots have different tolerances for delays due to the lack of pilot availability. One method to address the varying tolerance for delays is through adjusting the regulations that deal with dispatching. The current system is to strictly assign pilots on a first-come, first-serve basis. We plan to discuss this issue during the next GLPAC meeting to investigate whether that standard should be modified, and the potential implications such modifications would have on the System and hourly pilotage rates.

For many of the reasons the commenters described above, we realize that there are flaws with the 2017 NPRM staffing model. Based upon the comments received, particularly those that highlighted the variations in traffic throughout the season and the inconsistencies in the use of average trips vs. through time, we have concluded that our data does not support using the 2017 NPRM staffing model. For those reasons, we have decided to not to adopt the 2017 NPRM staffing model, and continue to use the 2016 final rule staffing model.

We note, however, that in the NPRM, we proposed to adjust the wording of 46 CFR 404.104 by replacing the word ''peak'' with the word ''seasonal.'' While we are not adopting the proposed new staffing model, we believe that ''seasonal'' is a more appropriate term to use, as instances of high demand often occur at various points in the seasons, and so are maintaining that textual change in the final rule.

We agree with both shippers and pilots that the proposed 2017 NPRM staffing model may not achieve the required goals of promoting safe and efficient pilotage, and that averaging traffic through an entire season may not adequately account for mid-season variations in demand. In this final rule, we maintain the staffing model we adopted in the 2016 final rule. Even though we have used the label ''peak demand'' for the 2016 staffing model, we believe some have misinterpreted this label. This model uses the pilot assignment cycle and average late-seasonal traffic demand over the past 10 shipping seasons to establish the number of pilots necessary to move that traffic. We did not establish staffing levels to eliminate delays throughout the season by reviewing 10 years of historic traffic and ensuring that sufficient pilots would be on the tour-de-role throughout the season to eliminate delays. We believe our approach provides sufficient pilots to deal with the opening of the Seaway and the late season rush, in addition to other high-traffic periods, in a safe and reliable manner while also accounting for mid-season demand variations and providing the pilots with sufficient opportunity to achieve 10 days of recuperative rest during 7 months of the season. We are willing to evaluate potential adjustments to this model in the future if we receive specific delay tolerances from those stakeholders concerned about this issue. We discussed staffing during the previous GLPAC meeting and plan to discuss staffing and delay tolerance during future meetings.

Calculation of Pilotage Need Under the 2016 Final Rule Staffing Model

Using the 2016 final rule model, we have recalculated the number of pilots needed for each district. First, we note that use of this model considers the extensive use of double pilotage during the opening and closing of the shipping season. This is because, during the opening and closing of the season, the aids to navigation may not be in place, the weather can be volatile and extreme, sea smoke and fog appear with little notice, and ice conditions routinely present unique challenges to navigation. It is also during these periods that the pilots are working diligently to ensure all vessels exit the system before the locks close. For these reasons, we tend to authorize double pilotage during the opening and closing in designated waters for District One and District Two. District Three tends to engage in day-

[52] Docket #USCG–2016–0268–0033, page 15.

[53] 81 FR at 72017 (December 19, 2016).

[54] Docket #USCG–2016–0268–0021, p. 1.

time only navigation on the St. Marys River in lieu of utilizing two pilots. Double pilot usage in District Three occurs about 30 percent of the time during the opening and closing of the System. Our staffing model is designed to move the average amount of ships (calculated using a 10-year average model) into and out of the system during these times.

Additionally, we note that the use of double pilotage avoids concern about how the proposed rule's modeling system dealt with the inclusion of the new mandatory change point at the Iroquois Lock. Several commenters had noted that while the Coast Guard had mandated the change, it had not updated its models to account for a shorter average transit through time the change would produce. However, during periods of double pilotage, because there are two pilots onboard that can share the duty, there is no need to do a pilot change at the Iroquois Lock.

Substep 1: Determine the Pilot Cycle Time

Similar to the 2017 NPRM staffing model, we start the 2016 final rule staffing model by calculating the pilot cycle time, as shown the tables below:

TABLE 5a—CALCULATION OF PILOT ASSIGNMENT CYCLE, DISTRICT ONE

District One	Area 1	Area 2
Time on Bridge or Available (hrs)	10.8	11
Travel and Pilot Boat Transit (hrs)	3.2	4.6
Delay (hrs)	.7	.9
Admin (hrs)	.5	.5
Mandatory Rest	10	10
Total Pilot Assignment Cycle (hrs)	25.2	27.0

District Two is unique in the fact that the mandatory change points do not align with the border of designated and undesignated waters. The mandatory change point is located at Detroit, but the boundary for designated and undesignated waters occurs at the Southeast Shoal of Lake Erie. We based the average through transit for each of these segments, as follows:

TABLE 5b—CALCULATION OF PILOT ASSIGNMENT CYCLE, DISTRICT TWO

District Two	Between Area 4 and Detroit	Between Detroit and Port Huron
Time on Bridge or Available (hrs)	17	6.5
Travel and Pilot Boat Transit (hrs)	4.6	3.2
Delay (hrs)	.7	.4
Admin (hrs)	.5	.5
Mandatory Rest	10	10
Total Pilot Assignment Cycle (hrs)	32.8	20.6

District Three is unique in that steel-importing vessels transit to Chicago/Burns Harbor while grain-exporting vessels depart from Duluth and Thunder Bay. During the opening and closing of the shipping season, the System experiences numerous vessels that make an inbound or outbound transit in ballast.

TABLE 5c—CALCULATION OF PILOT ASSIGNMENT CYCLE, DISTRICT THREE

District Three	Area 6	Area 7	Area 8
Time on Bridge or Available (hrs)	22.5	7.1	21.6
Travel and Pilot Boat Transit (hrs)	2.4	3.6	3.7
Delay (hrs)	1	0.3	3.3
Admin (hrs)	0.5	0.5	0.5
Mandatory Rest	10	10	10
Total Pilot Assignment Cycle (hrs)	36.4	21.5	39.1

Substep 2: Determination of Average Late Season Demand

We then determine the average late-season traffic demand over the base period, as shown in table 6. This number is derived by dividing the number of assignments by the number of days in the corresponding pilot cycle. Numbers for designated areas are doubled due to the need for double pilotage during late peak seasonal period, as described above. Table 6 also shows the number of pilots that would be authorized using the traffic information from 2007–2016.

TABLE 6—10-YEAR AVERAGE OF TRAFFIC DEMAND AND PILOT REQUIREMENTS AT THE CLOSING OF THE SEASON, 2007–2016

District One	Area 1 (designated)	Area 2 (undesignated)
Average late-season assignments per day	5	6
Average Pilot Cycle Time (hours)	25.2	27.0
Total Hours Needed (Assignments * Cycle Time)	126	162
Total Hours Needed for double pilotage transit (designated only)	252	.....
Number of pilots needed to meet the average seasonal demand (total hours/24)	10.5	6.8
Pilots Needed for total district	(252 + 162)/24 = 17.25 = 17 (rounded)	

District Two	Area 4 to Detroit (designated and undesignated)	Area 5 Between Detroit and Port Huron
Average late-season assignments per day	5	5
Average Pilot Cycle Time (hours)	32.8	20.6
Total Hours Needed (Assignments * Cycle Time)	164	103
Total Hours Needed for double pilotage transit (designated only)	N/A	206
Number of pilots needed to meet the average seasonal demand (total hours/24)	6.8	8.6
Pilots Needed for total district	(164 + 206)/24 = 15.41 = 15 (rounded)	

District Three	Area 6 (undesignated)	Area 7 (designated)	Area 8 (undesignated)
Average late-season assignments per day	5	5	5
Average Pilot Cycle Time (hours)	36.4	21.5	39.1
Total Hours Needed (Assignments * Cycle Time)	182	107.5	195.5
Total Hours Needed for double pilotage transit (designated only)	N/A	[55] 139.75	N/A
Number of pilots needed to meet the average seasonal demand (total hours/24)	7.6	5.8	8.1
Pilots Needed	(182 + 139.75 + 195.5)/24 = 21.55 = 22 (rounded)		

Based on the above analysis, we have determined that there is a need for a total of 54 pilots. The breakdown, as shown in the above table, is 17 pilots in District One, 15 pilots in District Two, and 22 pilots in District Three. The Coast Guard will keep these numbers in mind in future regulatory actions.

Calculation of Projected Pilot Numbers

As stated above, paragraph 404.103(d) produces a separate number of pilots, which is used for the Great Lakes pilotage ratemaking procedure. That section requires the Director of Great Lakes Pilotage to determine the number of pilots expected to be fully working and compensated based on the number of persons applying become U.S. Great Lakes registered pilots, and on information provided by the district's pilotage association. In the NPRM, the Coast Guard projected that there would be 17 pilots in District One, 13 pilots in District Two, and 15 pilots in District Three, for a total of 45 pilots.

In the NPRM, after determining the number of pilots needed in each district in Step 3, the Coast Guard proposed adding additional applicant pilots in District Two and District Three. The Coast Guard believes these applicant pilots are necessary to prepare for future retirements, given the long training periods associated with new pilots. Currently, 4 of the pilots in District Two are over 62 years of age, and 6 of the pilots in District Three are over 61 years of age. These pilots represent nearly 30 percent of the pilot strength in each of these districts. Waiting until these pilots retire to replace them will result in significant delays and may denigrate safety, because the pilot association will be short-staffed. These pilots are needed in addition to the existing shortage of pilots (District Two is one pilot short of the needed number, while District Three is seven pilots short). Therefore, the Coast Guard proposed authorizing a surcharge in 2017 to fund these additional applicant pilots.

We received several comments on this issue. One commenter [56] stated that the ''NPRM arbitrarily introduces pilot age as a reason to justify the addition of more pilots than required by its calculations.'' The commenter stated that the Coast Guard proposes adding 1 additional pilot in District Two and 4 additional pilots in District Three, but the Coast Guard does not impose age limitations on pilots. The commenter stated the Coast Guard also does not specify the retirement commitments of the current pilots within the next 2 years. The commenter recommended that instead of speculating about the age impacts on pilot rosters, the Coast Guard should train additional pilots based on the retirement transition plans.

We disagree. The regulations allow a registered pilot to work until the age of 70. Just because a pilot can keep his full registration until age 70, doesn't mean that all of the pilots will work until that age. In the past several years, a number of pilots have retired prior to age 70. While we are in close contact with the US pilot associations to plan for future retirements, we do not feel it is prudent to assume that all of the current pilots will work until age 70.

[55] District Three prefers day-time navigation only during the opening and closing of the System and these pilots use double pilotage approximately 30 percent of the time at the opening and closing of the season.

[56] Docket #USCG–2016–0268–0033, p. 18.

Once commenter [57] stated that the ''Lakes Pilots Association agrees with the number of pilots in the proposed rates of 13 working pilots and 2 training pilots.'' The commenter stated the Lakes Pilot Association will require 15 pilots to service future traffic and provide adequate rest in the future. The Lakes Pilot Association noted in 2018, that it will look for 14 full time pilots and 1 trainee and will be at 15 full time pilots in 2019. We agree with the assessment that there is a need for 13 working pilots and 2 training pilots for the 2017 shipping season. We cannot comment on 2018 and 2019 at this time.

Based on our analysis of the pilotage numbers and the comments received, we have not modified the number of working pilots for 2017. Both the 2017 NPRM staffing model and the 2016 final rule staffing model produce more pilots than the 3 U.S. pilot associations have fully trained. Therefore, when we established 45 working pilots in the NPRM, we knew that the system needed more time to acquire and train the additional pilots. We will continue to monitor and work with the pilot associations to ensure that the associations continue to make progress toward our staffing goals. The final numbers for the 2017 Step 3 calculations are 17 pilots for District One, 13 pilots for District Two, and 15 pilots for District Three, for a total of 45 pilots. Pursuant to 46 CFR 404.104, these are the numbers we will be using in our rate calculations.

4. Calculation of Target Compensation

Step 4 in our ratemaking methodology requires that the Coast Guard determine the target pilot compensation (§ 404.104). In the 2016 final rule, the Coast Guard used the Canadian pilot compensation as the benchmark for the U.S. pilot compensation, and then made an adjustment for foreign exchange differences and inflation. The Coast Guard then increased the U.S. target pilot compensation by 10 percent over the projected GLPA figure to account for the differences in the status of U.S. and Canadian pilots and the different compensation systems in place in the two countries. In the 2017 NPRM, the Coast Guard proposed keeping the target pilot compensation at the 2016 levels.

In this section, we discuss comments relating to our calculations to get to the target compensation as discussed in the 2016 final rule and the 2017 NPRM, which uses the Canadian salary plus 10 percent as the target. In the section regarding setting a compensation benchmark above, we separately discussed the issue of using different compensation benchmarks, such as the compensation packages for pilots in other U.S. Associations or salaries of first mates or other crewmembers. For the reasons described in that section, we continue to believe that the benchmark established in the 2016 final rule, based on Canadian pilot salaries plus a 10 percent differential to calculate the value of certain benefits, is an appropriate level of compensation. In this section, we discuss the specific comments related to the calculation of the compensation benchmark.

Several commenters suggested that the use of Canadian pilot salaries was an inappropriate yardstick by which to base U.S. salaries. One commenter argued that it was inappropriate because U.S. and Canadian pilot associations cannot recruit workers from the same pool of individuals.[58] Another commenter suggested that the older way in which the Coast Guard determined compensation, by basing its estimate on the wages paid to U.S. Masters and Mates, was more appropriate, asserting that the functions of these personnel are essentially the same as U.S. pilots, and that using this system avoids the complications of comparing compensation across national boundaries.[59]

Several pilot associations argued that the Coast Guard should base Great Lakes compensation figures on the salaries earned by other U.S. pilot associations. Several commenters provided figures, noting that in other areas, U.S. pilots earned upwards of $450,000 per year. One commenter [60] provided figures showing the projected compensation for pilots in various U.S. pilot associations, which ranged from a low of $399,708 per year to a high of $493,692. Other commenters echoed the argument that the Great Lakes pilots are among the lowest-paid U.S. pilots.

In some regions governed by local pilotage associations, compensation figures appear to be much higher than those proposed by the Coast Guard. It is unclear why some U.S. pilot associations receive compensation levels much higher than that of Canadian pilots or U.S. masters and mates, based on the alternative sources of information that we have.[61] As many organizations that set pilotage rates do not make public what methodology they are using to derive pilotage rates, we do not have sufficient information or a basis to raise pilotage rates on the Great Lakes to determine if these levels of compensation are appropriate for Great Lakes pilotage. We note, again, that we are undertaking a compensation study to better determine an appropriate compensation benchmark, and will present the results of such a study in a public forum should it provide a better basis for setting compensation levels.

Even for those commenters who agreed that the comparison between U.S. and Canadian Great Lakes pilots was the most apt, we received comments that our calculations erred in a variety of ways. Many commenters offered statements regarding the calculations of Canadian pilots' average total compensation, arguing that in certain areas, the Coast Guard had overestimated or underestimated the total amount, or made errors in its conversion of the value of Canadian compensation to American currency. In the NPRM, we recognized that the most challenging portion of our target compensation analysis was the conversion of Canadian benefits into equivalent United States benefits, and many commenters argued that we had underestimated total compensation in a variety of ways.

One commenter argued that the Coast Guard underestimated Canadian compensation by averaging the compensation of four contract and three apprentice pilots, along with 49 full-time, regular Canadian pilots, into the compensation total.[62] That commenter stated that the compensation for U.S. full-time, regular pilots should be based on the salaries of Canadian full-time, regular pilots only. By excluding those contract and apprentice pilots, the commenter calculated that the base compensation should have been $291,035, rather than the $268,552 used in the NPRM, meaning that the Coast Guard should increase the total compensation target by over 8 percent.

While we agree with the commenter that contract and apprentice pilots should not have been included in the calculations of pilot salaries, we disagree with the commenter's assertion that they were included in our calculations. The Coast Guard did not base its calculations on the annual report the commenter cited, but received information from the GLPA directly. When the GLPA provided the Coast Guard with the information regarding Canadian compensation, it did not include these contract and apprentice pilots.

[57] Docket #USCG–2016–0268–0035, p. 1.

[58] Docket #USCG–2016–0268–0031, p. 1.

[59] Docket #USCG–2016–0268–0033, p.20.

[60] Docket #USCG–2016–0268–0028, p. 6–7.

[61] These sources include information from the Great Lakes Pilotage Authority as well as information regarding compensation submitted by other U.S. pilotage associations.

[62] Docket #USCG–2016–0268–0028, p. 2–3.

Another commenter[63] argued that U.S. pilots should be paid substantially more than Canadian pilots due to working more days per year. This commenter stated that that the Canadian Great Lakes Pilot Association's work schedule is 178 days per year, and that the U.S. pilot compensation needs to be adjusted to reflect an additional 12.4 percent difference in time on duty. We disagree that target pilot compensation needs to be adjusted by 12.4 percent. While our staffing model assumes that the pilots will be on the tour-de-role for 200 days of the season, we do not make a 1-to-1 comparison between time spent on duty in the Canadian sector and time spent on the tour-de-role. Our methodology was designed to approximate the annual average compensation for Canadian pilots, not an attempt to match their hourly pay rate.

One issue that arose regarding compensation figures is the conversion from Canadian to U.S. currency. Comments from the Great Lakes Shippers Association requested the Coast Guard to recalculate the baseline compensation figure using updated exchange rate figures. The commenter stated that the Coast Guard's ''decision in the 2017 NPRM to disregard fluctuations in the U.S./Canadian exchange rate is inconsistent with the 2016 NPRM.''[64] The commenter requested that the Coast Guard provide analysis and reasoning for this change from the past practice. The commenter also stated that if the exchange rates are relevant in one direction the exchange rates should be relevant in the other direction, arguing that not including this fluctuation in the exchange rate ''fails to reconcile the emphasis on perceived parity between U.S. and Canadian pilot compensation with the negative impact of increased U.S. dollar strength on Canadian pilots.'' Shipping industry comments requested that exchange rates be used to recalculate compensation on a regular basis. The comment suggested that the Coast Guard should adhere to this methodology if the Coast Guard chooses to use Canadian compensation as the benchmark.

The shipping association comments requested that, given the decline in exchange rates between the U.S. and Canadian dollars, the Coast Guard dramatically lower the target compensation. The commenter stated that ''assuming a 1.329 average exchange rate and 2 percent inflation per year, U.S. pilot compensation in 2017 would be $240,149''.[65] The commenter stated that this compensation figure is 3.4 percent higher than the 2015 projected compensation levels in designated waters of $232,237, which was the last year the Coast Guard used U.S. Mates and Masters as the U.S. target pilot compensation.

We acknowledge that the exchange rate had changed substantially, and that our original translation of Canadian benefits to U.S. dollars is based on the 2014 exchange rate. This rate has fluctuated significantly in recent years, for example, changing from 1.149 CAD:1 USD in 2014 to 1.329 CAD:1 USD in 2015.[66] If the goal of the Coast Guard were to have U.S. pilot salaries mirror, as closely as possible, the value of Canadian pilots' salaries each year, it would make sense to re-baseline the compensation figure using updated exchange rates each year. One downside of this approach, however, would be tremendous volatility in pilot compensation as the currency fluctuated from year to year. As we noted in our discussion of why we proposed a compensation benchmark in the NPRM, large swings in compensation, based on external factors such as currency fluctuations, are something the Coast Guard believes are highly detrimental to retaining talented pilots and maintaining safe and efficient pilotage.

Other commenters wanted the Coast Guard to revisit its calculation of compensation and increase it, citing a number of factors. One commenter[67] argued that the 10 percent factor used to adjust the Canadian pilot compensation to American pilot target compensation is too low. The commenter identified 10 ways that the Canadian pilot positions differ from American pilot positions, and argued that each of these identified differences works to the disadvantage of the American pilots with respect to compensation. The commenter suggested setting U.S. pilot compensation at Canadian compensation plus 25 percent, rather than 10 percent, but then stated that this would still be too low given the differences.

The commenter[68] further stated the difference in healthcare and pension costs alone exceeds the 10 percent factor and supports the need for at least a 25 percent factor.[69] The commenter stated the pension compensation between the American and Canadian pilots is different: The Canadian pilots are government employees who contribute to a defined benefit pension plan that is subsidized by the Canadian government, but the American pilots have no defined government plans and must cover the costs of retirement themselves. The commenter submitted data on the annual pension contributions from a randomly selected group of GLPA pilots. The commenter did note that the typical Canadian pilot contributes an average of $10,000–16,000 annually to a pension plan, while an American pilot might contribute ''multiple times that amount, receiving no contribution from his government, and not being eligible for any similar lifetime government-sponsored defined pension plan.'' The commenter stated the difference an American pilot would need to contribute to a pension alone requires a factor greater than 10 percent to adjust target compensation. They also stated that data from the International Organization of Masters, Mates & Pilots (MM&P) American labor union indicates the pension contribution for a pilot would be $61,992 annually for a plan similar to the Canadian defined benefit pension plan.

The same commenter also stated the healthcare compensation is different between American and Canadian pilots, and further supports a factor higher than 10 percent. The commenter noted a Canadian pilot pays no out-of-pocket expenses for dental or general healthcare coverage, while an American pilot typically pays $25,000 annually for a reasonably comprehensive healthcare plan. The commenter cited that the MM&P Pilot Membership Health plan annual cost is $28,965 and an American pilot association includes $30,000 annually per pilot for healthcare. Further, American pilots must pay for long-term disability insurance while Canadian pilots have no out-of-pocket costs for long-term disability coverage. For these reasons, the commenter requested ''the Coast Guard to revise its factor to at least 25 percent and perhaps more in order to achieve its goal of equivalency''.[70]

Despite the importance of these issues, this information does not relate to an issue that the Coast Guard proposed to address in the 2017 ratemaking process. In 2016, the Coast Guard conducted a substantial re-baselining of the compensation benchmark, and considered these issues closely, arriving at the $326,114 annual compensation figure. In the 2017 ratemaking, it was not our intention to

[63] Docket #USCG–2016–0268–0038, p. 4.

[64] Docket #USCG–2016–0268–0033, p. 20.

[65] Docket #USCG–2016–0268–0033, p. 21.

[66] See *https://www.irs.gov/individuals/international-taxpayers/yearly-average-currency-exchange-rates.*

[67] Docket #USCG–2016–0268–0028, p. 4.

[68] Docket #USCG–2016–0268–0028, p. 4.

[69] Docket #USCG–2016–0268–0028. p. 4.

[70] Docket #USCG–2016–0268–0028, p. 5.

reanalyze all of these issues, and we did not propose a change in the value we established in 2016. Much like recalculating U.S. pilot salaries on the fluctuating U.S.-Canada exchange rate, recalculating these issues on an annual basis could produce an extraordinary amount of volatility in both the shipping rates and the overall compensation levels, which is why we proposed using a 10-year compensation benchmark rather than recalculating the target compensation on an annual basis. As we stated in the NPRM, we do not believe it is in the public interest to introduce such volatility into the market based on these difficult-to-calculate and predict forces. We believe that the system needs target pilot compensation stability in order to achieve and maintain workforce stability, and that this concern strongly supports using a consistent compensation benchmark. For that reason, while we consider all of these factors to be valid concerns, we are not utilizing them in this rulemaking.

We did receive one comment on the compensation figure that did not involve re-examining the benchmark. This commenter suggested that the 2016 figure should be adjusted for inflation so that pilots would continue to receive the same income in real terms. We agree with this commenter. To remain stable in real terms, such a benchmark would need be adjusted for inflation on an annual basis. This will achieve the Coast Guard's goal of maintaining stability in real (as opposed to nominal) compensation. For this reason, we are adjusting the 2017 target compensation by the Midwest Consumer Price Index of 2.1 percent, for a total figure of $332,963 per year. We intend to adjust the compensation figure for inflation annually in future ratemaking actions, the same way that operating expenses are adjusted for inflation.

Based on the analysis, the calculations for step 4 are as follows:

TABLE 7—CALCULATIONS OF TOTAL COMPENSATION

District One	Area 2 (undesignated)	Area 1 (designated)	Total
Target Pilot Compensation	$332,963	$332,963	$332,963
Number of Pilots (step 3)	10	7	17
Total pilot compensation	$3,329,630	$2,330,741	$5,660,371
District Two	**Area 4 (undesignated)**	**Area 5 (designated)**	**Total**
Target Pilot Compensation	$332,963	$332,963	$332,963
Number of Pilots (step 3)	6	7	13
Total pilot compensation	$1,997,778	$2,330,741	$4,328,519
District Three	**Area (undesignated)**	**Area (designated)**	**Total**
Target Pilot Compensation	$332,963	$332,963	$332,963
Number of Pilots (step 3)	11	4	15
Total pilot compensation	$3,662,593	$1,331,852	$4,994,445

5. Working Capital Fund

Step 5 in our ratemaking methodology requires that the Coast Guard determine the working capital fund (proposed § 404.105). In the NPRM, we proposed changing the term for this step from ''Project return on investment'' to ''Determine working capital fund.'' Even though we proposed changing the name of the step, we did not propose changing the calculation.

The Coast Guard described the calculation of the working capital fund in the NPRM.[71] We calculated the working capital fund by multiplying the 2014 average rate of return for new issues of high-grade corporate securities, using the Moody's AAA bond rate information to determine the average annual rate of return for new issues of high-grade corporate securities, and Total Expenses from step 4 of the ratemaking analysis. The 2014 average annual rate of return for new issues of high-grade corporate securities was 4.16 percent.[72] This figure is added to the total revenue needed in the next stage.

One commenter stated the Coast Guard is not using the working capital fund to attract capital, and that this fund is better described as ''cash reserves for operating expenses.'' Similarly, the commenter[73] stated the Coast Guard failed to address why the pilotage should cover any expenses beyond direct expenses. The commenter stated that working capital fund is inappropriate under conventional regulatory ratemaking principles, and the rate payers should only pay for all operating expenses via the rates and surcharges. The commenter requested the Coast Guard eliminate the working capital fund. In its place, the Coast Guard should review and approve projects for funding with surcharges, ''assuming surcharges are structured in a manner that permits close pre-approved scrutiny to ensure the expenditure adds value to pilotage services and the surcharge is terminated when the specific need is met.''[74] The commenter stated he or she prefers the use of surcharges as it provides more clarity in the use of the funds than a working capital fund.

We disagree that the working capital fund should be abolished and that infrastructure improvements should only be paid for with surcharges. We believe that surcharges are a poor method for paying for infrastructure projects, which are often capital-intensive, with large upfront costs. It would be risky to try and recover these large upfront costs through surcharges due to general volatility in shipping levels, which might not cover the fixed costs of infrastructure. Using surcharges

[71] 81 FR 72014–5.

[72] Based on Moody's AAA corporate bonds, which can be found at: *http://research.stlouisfed.org/fred2/series/AAA/downloaddata?cid=119.*

[73] Docket #USCG–2016–0268–0033, p. 23.

[74] Docket #USCG–2016–0268–0033, p. 23.

for infrastructure projects would also increase volatility in shipping charges, which is not desirable. That is why the working capital fund is not structured to be a ''cash reserve'' for infrastructure projects. Instead, it is structured so that the pilot associations can demonstrate credit worthiness when seeking funds from a financial institution for needed infrastructure projects, and those projects can produce a return on investment at a rate commensurate to repay a financial institution. While we acknowledge that, currently, capital improvements are funded via surcharges, it is our belief that the working capital fund should allow us to limit the need for surcharges in the future.

TABLE 8—WORKING CAPITAL FUND CALCULATION

District One	Area 2 (undesignated)	Area 1 (designated)	Total
Adjusted Operating Expenses (Step 2)	$648,371	$516,353	$1,164,724
Total Target Pilot Compensation (Step 4)	3,329,630	2,330,741	5,660,371
Total 2017 Expenses (lines 1+2)	3,978,001	2,847,094	6,825,095
Multiply by Moody' High Grade Security Rate (4.16%)	165,485	118,439	283,924
District Two	**Area 4 (undesignated)**	**Area 5 (designated)**	**Total**
Adjusted Operating Expenses (Step 2)	816,016	1,224,024	2,040,040
Total Target Pilot Compensation (Step 4)	1,997,778	2,330,741	4,328,519
Total 2017 Expenses (lines 1+2)	2,813,794	3,554,765	6,368,559
Multiply by Moody' High Grade Security Rate (4.16%)	117,054	147,878	264,932
District Three	**Areas 6 and 8 (undesignated)**	**Area 7 (designated)**	**Total**
Adjusted Operating Expenses (Step 2)	1,463,402	487,114	1,950,516
Total Target Pilot Compensation (Step 4)	3,662,593	1,331,852	4,994,445
Total 2017 Expenses (lines 1+2)	5,125,995	1,818,966	6,944,961
Multiply by Moody' High Grade Security Rate (4.16%)	213,241	75,669	288,910

6. Calculation of Needed Revenue

Step 6 in our ratemaking methodology requires that the Coast Guard determine the projected revenue for the next year (§ 404.106). The needed revenue is determined by adding the proposed § 404.102 operating expense, the proposed § 404.104 total target compensation, and the proposed § 404.105 working capital fund. We did not receive any comments related to this step.

TABLE 9—CALCULATION OF NEEDED REVENUE

District One	Area 1 (designated)	Area 2 (undesignated)	Total
Adjusted Operating Expenses (Step 2)	$648,371	$516,353	$1,164,724
Total Target Pilot Compensation (Step 4)	3,329,630	2,330,741	5,660,371
Working Capital Fund (Step 5)	165,485	118,439	283,924
Total Revenue Needed	4,143,486	2,965,533	7,109,019
District Two	**Area 4 (undesignated)**	**Area 5 (designated)**	**Total**
Adjusted Operating Expenses (Step 2)	816,016	1,224,024	2,040,040
Total Target Pilot Compensation (Step 4)	1,997,778	2,330,741	4,328,519
Working Capital Fund (Step 5)	117,054	147,878	264,932
Total Revenue Needed	2,930,848	3,702,643	6,633,491
District Three	**Areas 6 and 8 (undesignated)**	**Area 7 (designated)**	**Total**
Adjusted Operating Expenses (Step 2)	1,463,402	487,114	1,950,516
Total Target Pilot Compensation (Step 4)	3,662,593	1,331,852	4,994,445
Working Capital Fund (Step 5)	213,241	75,669	288,910
Total Revenue Needed	5,339,236	1,894,635	7,233,871

7. Projection of Future Revenue and Calculation of Initial Base Rates

Step 7 in our ratemaking methodology requires that the Coast Guard make the initial base rate calculations. To make our initial base rate calculations, we first establish a multi-year base period from which we can draw available and reliable data on actual pilot hours worked in each district's designated and undesignated waters. In the NPRM, we proposed using data covering 2007

through 2015. We then calculated the new rates by dividing each association's projected needed revenue, from § 404.106, by the average number of bridge hours and rounding to the nearest whole number. We did not receive comments on this step.

TABLE 10a—CALCULATION OF AVERAGE TRAFFIC

District One	Area 2 (undesignated)	Area 1 (designated)
2016	.....	.....
2015	6,667	5,743
2014	6,853	6,810
2013	5,529	5,864
2012	5,121	4,771
2011	5,377	5,045
2010	5,649	4,839
2009	3,947	3,511
2008	5,298	5,829
2007	5,929	6,099
Average	5,597	5,390
District Two	Area 4 (undesignated)	Area 5 (designated)
2016	.....	.....
2015	6,535	5,967
2014	7,856	7,001
2013	4,603	4,750
2012	3,848	3,922
2011	3,708	3,680
2010	5,565	5,235
2009	3,386	3,017
2008	4,844	3,956
2007	6,223	6,049
Average	5,174	4,842
District Three	Areas 6 and 8 (undesignated)	Area 7 (designated)
2016	.....	.....
2015	22,824	2,696
2014	25,833	3,835
2013	17,115	2,631
2012	15,906	2,163
2011	16,012	1,678
2010	20,211	2,461
2009	12,520	1,820
2008	14,287	2,286
2007	24,811	5,944
Average	18,835	2,835

TABLE 10b—CALCULATION OF INITIAL BASE RATES

District One	Area 2 (undesignated)	Area 1 (designated)
Revenue Needed (Step 6)	$2,965,533	$4,143,486
Average traffic	5,597	5,390
Initial hourly rate	$530	$769
District Two	Area 4 (undesignated)	Area 5 (designated)
Revenue Needed (Step 6)	$2,930,848	$3,702,643
Average traffic	5,174	4,842
Initial hourly rate	$566	$765
District Three	Areas 6 and 8 (undesignated)	Area 7 (designated)
Revenue Needed (Step 6)	$5,339,236	$1,894,635
Average traffic	18,835	2,835
Initial hourly rate	$283	$668

8. Calculation of an Average Weighting Factor

In the NPRM, the Coast Guard sought public comment on how we should handle weighting factors in 46 CFR 401.400, which outlines the calculations for determining the weighting factors for a vessel subject to compulsory pilotage. This calculation determines which multiplication factor will be applied to the pilotage fees. The Coast Guard presented three options and requested public comment on which option should be implemented for future ratemakings. After receiving public comments on the NPRM, the Coast Guard decided to seek additional comments on this issue in a Supplemental Notice of Proposed Rulemaking.[75]

The first option was to maintain the status quo. This would maintain the collection of the current weighting factors and continue to exclude this revenue from the ratemaking calculation.

The second option was to remove weighting factors completely from the regulations and charge every vessel equally for pilotage service because a ship's dimensions have little impact on the experience and skill level of the pilot providing the service. We note that this option could mean simply charging every vessel the current ''base rate,'' or it could mean adjusting the rates for vessels so all vessels pay the current average weighted rate.

The third option was to incorporate weighting factors into the ratemaking through an additional step that examines and projects their impact on the revenues of the pilot associations. This might enable us to better forecast revenue, but it would add another variable to the projections in the ratemaking methodology.

One commenter said that they ''strongly urge the Coast Guard to maintain the status quo on weighting factors, at least until actual data suggest that changes are necessary and appropriate.'' [76] The commenter stated that the pilots have consistently failed to reach the target pilot compensation over the last decade, with the weighting factors included, and therefore changing the weighting factors would risk further contributing to the difficulty attracting and retaining pilots.

One commenter [77] stated that the Coast Guard's revenue projections would not be accurate if we did not include weighting factors to reflect vessel size. The commenter suggested that since the rates in the NPRM do not reflect weighting factors, the Coast Guard overstates the rates needed to generate the pilotage revenue. The actual pilotage charges include a weighting factor multiplier and additional charges. If the actual traffic is equal to the expected demand, then the pilot associations would receive revenue above the target revenue. The commenter provided an example using a 1.25 weighting factor, which is close to the 1.26 average weighting factor provided in GLPA data.[78] The commenter argued that if an average weighting factor of 1.25 for all traffic were applied for the 2017 shipping season, the pilot associations would receive pilotage rates sufficient to reach the $20.4 million target revenue, plus an additional 25 percent in weighting factor revenue, plus any additional amount charged to vessel operators.[79]

The commenter stated that they support the Coast Guard's proposed third alternative for weighting factors, and suggested we use an average weighting factor from either the current navigation season or the last full year of available data in order to project revenues for the next ratemaking. The commenter suggested we use an average weighting factor between 1.2 and 1.3.

The argument that not including the revenue from the weighting factors into our calculation of total revenue would throw off the calculations made intrinsic sense. Under the new methodology introduced in 2016, pilotage is billed on an hourly basis, and if actual revenues were approximately 25 percent higher than traffic would suggest they should be, then the weighting factors would appear to be the cause of that discrepancy. Under its own initiative, the Coast Guard examined the initial revenue reports from the 2016 shipping season from all three districts, and compared that to an average of weighting factor charges collected through the Great Lakes Pilotage Management System. The resulting comparison showed that the actual revenues were substantially higher than predicted—even given the higher-than-average traffic in 2016. The difference in expected revenue tracked closely, but not exactly, with the calculated average weighting factor in each District. This meant that shippers were paying approximately $5 million more annually in shipping charges than the needed revenue figure would suggest. It is important to note that non-compulsory pilotage did not significantly change the disparity between projected and collected revenues. Even though the three pilot associations generated in excess of $3 million for providing non-compulsory service, once we removed the bridge hours for those efforts, the revenues still revealed a $5 million difference.[80]

With this new information, the Coast Guard decided that there was an urgent need to address the extra revenues being brought in by the weighting factors in the 2017 ratemaking. To that end, we issued an SNPRM to address the weighting factors and to propose a modification to the methodology. Our intention, as stated in the SNPRM, is to establish a methodology that aligns projected revenues with actual collections.

In the SNPRM, we proposed a two-step process for accounting for the fees generated by the weighting factors. First, in a step we proposed to designate Step 8, we would calculate the average actual weighting factor in each area by using a weighted average of each class of vessels. We would create a rolling multi-year average of that number beginning with 2014, the year the weighting factors were set to current levels. Then, in Step 9, we would divide the initial base rate for each area, calculated in Step 7, by the weighting factor derived in Step 8, to produce a final shipping rate. This would have the effect of incorporating the additional revenues brought in by the weighting factors into the revenue model used to set rates. As expected, this led to significant reductions in pilotage fees, between the NPRM and SNPRM, across all three districts, as expressed in the table below.

[75] 82 FR 16542, April 5, 2017.

[76] Docket #USCG–2016–0268–0028, p. 9.

[77] Docket #USCG–2016–0268–0033, p. 29.

[78] Docket #USCG–2016–0268–0033, Exhibit I, Weighting Factor Data.

[79] Docket #USCG–2016–0268–0033, p. 31.

[80] District 1 had 920 hours of non-compulsory pilotage that generated $619,218. Removing those hours and revenues leaves 98 percent of projected pilotage service and 122 percent of projected revenues. District 2 had 1,920 hours of non-compulsory pilotage that generated $1,674,256. Removing those hours and revenues leaves 101 percent of projected pilotage service and 133 percent of projected revenues. District 3 had 2,745 hours of non-compulsory pilotage that generated $1,030,570. Removing those hours and revenues leaves 111 percent of projected pilotage service and 135 percent of projected revenues. Based on this analysis, we do not believe the non-compulsory pilotage significantly altered the measured disparity between traffic and revenue.

TABLE 11—COMPARISON OF HOURLY PILOTAGE RATES

Area	Pilotage charges per hour (per 2016 final rule)	NPRM proposed charges per hour	SNPRM proposed charges per hour
St. Lawrence River	$580	$757	$601
Lake Ontario	398	522	408
Navigable waters from Southeast Shoal to Port Huron, MI	684	720	580
Lake Erie	448	537	429
St. Mary's River	528	661	514
Lakes Huron, Michigan, and Superior	264	280	218

We solicited comments on this revision of methodology, and received an additional nine comment letters on this issue, which are addressed below. Several commenters expressed concern that pilot salaries on the Great Lakes were already too low, and that by incorporating the weighting factors into the revenue analysis, we would jeopardize safety on the Great Lakes as more pilots would leave the system. We respectfully disagree with this analysis. As explained in great detail in the NPRM and this final rule, we have significantly raised pilot compensation in recent years. In 2016, we raised target pilot compensation to $326,114 annually. Despite proposing no change in the 2017 NPRM, we have agreed with commenters who argued that this should be increased by inflation, to a total of $332,963. For the reasons described above, we believe this salary has been shown to dramatically reduce the recruitment and retention problems the Great Lakes pilots experienced in the past. Incorporating the revenue generated by the weighting factors into our analysis allows the Coast Guard to set a pilotage rate that achieves that outcome.

Several commenters made the argument that the Coast Guard's analysis was procedurally defective as a matter of law due to the way we undertook them. These commenters suggested that the Coast Guard used unaudited revenue figures to arrive at the revised analysis in the SNPRM, and that the use of those figures violated the requirement in 46 CFR 404.1(b), which states that annual reviews of pilotage association expenses and revenue will be based on audited data, and that data from completed reviews will be used in ratemaking.

We disagree with the commenters, and believe that they have fundamentally misinterpreted how the Coast Guard arrived at the SNPRM's proposal to adjust weighting factors. As described above, the Coast Guard's analysis of the weighting factors was not the result of the over-generation of revenue by the pilot associations. Rather, we were spurred to examine them by the commenters' logical arguments that the weighting factor produces revenue that goes to the pilot associations, and that by not accounting for that revenue, our ratemaking model was flawed. Mathematical logic suggested that if the weighting factors added, on average, 28 percent to the total fees collected that were not accounted for in the ratemaking model, then the pilot associations would be collecting 28 percent more revenues than would be expected given the amount of traffic measured.

We are aware that the commenters had made this argument in past years, but we had not accepted it. What was different this year is that it was the first year where the pilotage rates had been set under the new ratemaking model, adopted in the 2016 final rule. In previous years, where the old ratemaking model was used, data had always shown that actual revenues fell short of anticipated revenues. However, for the first time in 2017 there was data—the preliminary 2016 revenue numbers—that could be used to determine a rough estimate of the magnitude of any revenue surplus. When we compared the preliminary revenue numbers from 2016 to see if they bore out this hypothesis, we found that the numbers were similar. We are cognizant that traffic on the Great Lakes experienced a sharp rise in 2016, and that there would be a commensurate increase in revenues, but as expected, the increase in revenues far outpaced the increase in traffic.

We noted, however, that there were still some discrepancies in the figures. While the mathematics of the weighting factor would indicate that revenues would run approximately 28 percent higher, the revenue figures showed slightly lower numbers. We requested comments on this discrepancy in the SNPRM, but did not receive comments that would explain or correct it. Whatever the cause, we did not base the weighting factor reduction proposed in the SNPRM on those unaudited numbers. Doing so would have resulted in a slightly lower reduction than what was proposed, but on the actual calculated average of the billed weighting factors. We did not base the reduction on the preliminary, unaudited revenues provided by the pilot associations precisely because they were preliminary and unaudited.

Given the comments received, the Coast Guard does not see any reason to deviate from the weighting factors analysis in this final rule. We used the same multi-year rolling average standard for this calculation as we used for historic pilotage demand. Since the current weighting factors came into place in 2014, we used the data between 2014 and 2016 and will expand this data set until we reach our 10-year goal. They are calculated as follows:

TABLE 12—CALCULATION OF AVERAGE WEIGHTING FACTORS

Vessel class	Number of transits	Weighting factor	Multiplier
District One: Undesignated (Area 2):			
Class 1	71	1.00	71
Class 2	670	1.15	770.5
Class 3	130	1.30	169
Class 4	780	1.45	1,131

TABLE 12—CALCULATION OF AVERAGE WEIGHTING FACTORS—Continued

Vessel class	Number of transits	Weighting factor	Multiplier
Total Transits	1,651		2,141.5
Average Weighting Factor			1.30
District One: Designated (Area 1):			
Class 1	103	1.00	103
Class 2	765	1.15	879.75
Class 3	128	1.30	166.4
Class 4	736	1.45	1,067.2
Total Transits	1,732		2,216.35
Average Weighting Factor			1.28
District Two: Undesignated (Area 4):			
Class 1	63	1.00	63
Class 2	678	1.15	779.7
Class 3	20	1.30	26
Class 4	980	1.45	1,421
Total Transits	1,741		2,289.7
Average Weighting Factor			1.32
District Two: Designated (Area 5):			
Class 1	98	1.00	98
Class 2	1,090	1.15	1,253.5
Class 3	29	1.30	37.7
Class 4	1,664	1.45	2,412.8
Total Transits	2,881		3,802
Average Weighting Factor			1.32
District Three: Undesignated (Areas 6 and 8):			
Class 1	244	1.00	244
Class 2	1,237	1.15	1,422.55
Class 3	43	1.30	55.9
Class 4	1,801	1.45	2,611.45
Total Transits	3,325		4,333.9
Average Weighting Factor			1.30
District Three: Designated (Area 7):			
Class 1	105	1.00	105
Class 2	540	1.15	621
Class 3	10	1.30	13
Class 4	757	1.45	1,097.65
Total Transits	1,412		1,836.65
Average Weighting Factor			1.30

Step 9: Calculation of Revised Rate

In this penultimate step, we calculate the revised rate by incorporating the average weighting factor into the initial rate. The revised rate is calculated as follows:

TABLE 13—CALCULATION OF REVISED RATE

	Initial rate (Step 7)	Average weighting factor (Step 8)	Revised rate (Step 9)
District One			
District One Designated	$769	1.28	$601
District One Undesignated	530	1.30	408
District Two			
District Two Designated	765	1.32	580
District Two Undesignated	566	1.32	429
District Three			
District Three Designated	668	1.30	514
District Three Undesignated	283	1.30	218

Step 10: Review and Finalize Rates

Section 401.10, often known as ''Director's discretion,'' allows the Coast Guard to adjust rates to ensure they meet the goal of providing safe and reliable pilotage. In the NPRM, we did not propose to use this discretion in our ratemaking, and we are not using it in this ratemaking. While we received comments suggesting we add language limiting the use of our discretion, we do not feel such language is necessary or appropriate to include in this final rule as the current methodology provides a fair and transparent means to meet the goals outlined in 46 CFR 404.1(a).

Surcharge Calculation

After the pilotage rates have been determined, the Coast Guard can authorize the pilot associations to impose a surcharge. In the NPRM, we proposed a 5 percent surcharge for District Two and a 15 percent surcharge for District Three to cover training expenses for nine applicant pilots. We proposed this number based on historical pilot costs, stipends, per diems, and training costs, which are approximately $150,000 per pilot per shipping season. We continue to find that allowing associations to recoup necessary and reasonable training expenses, both to help achieve a full complement of needed pilots and to ensure skill maintenance and development for current pilots, will facilitate safe, efficient, and reliable pilotage. Thus we are imposing a necessary and reasonable temporary surcharge, as authorized by 46 CFR 401.401. Based upon our records and communications with the various pilot associations, for 2017, we anticipate that there will be two applicant pilots in District Two, and seven applicant pilots in District Three.

We received one comment on this subject, stating that the surcharge adjustment of $150,000 was not enough for District Two, and that the amount for that district should be set instead at $250,000 to properly recover costs.[81] The same commenter, in a separate comment, also wrote that the 2014 applicant pilot salaries were $281,588.00 and the benefits were $96,613.00.[82] However, we were unable to confirm these assertions, because the commenter did not provide sufficient documentation with the comment. Any difference between the actual and assumed cost may be included in a future rulemaking. Again, we will determine which incurred expenses are necessary and reasonable, and ensure that the shippers are not double-charged for these same expenses.

Based on historic pilot costs, the stipend, per diem, and training costs, we continue to believe that the total costs for each applicant pilot are approximately $150,000 per shipping season. Thus, we estimate that the training expenses that each association will incur will be approximately $300,000 in District Two and $1,050,000 in District Three. Table 14 derives the proposed percentage surcharge for each district by comparing this estimate to each district's projected needed revenue.

TABLE 14—SURCHARGE CALCULATIONS

District Two	
Projected Needed Revenue (§ 404.106)	$6,663,002
Anticipated Training Expenses	$300,000
Surcharge Needed *	5%
District Three	
Projected Needed Revenue (§ 404.106)	$7,262,089
Anticipated Training Expenses	$1,050,000
Surcharge Needed *	15%

* Surcharge rounded up to the nearest whole percent.

V. Regulatory Analyses

We developed this final rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on these statutes or Executive orders.

A. Regulatory Planning and Review

Executive Orders 12866 (''Regulatory Planning and Review'') and 13563 (''Improving Regulation and Regulatory Review'') direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. Executive Order 13771 (''Reducing Regulation and Controlling Regulatory Costs''), directs agencies to reduce regulation and control regulatory costs and provides that ''for every one new regulation issued, at least two prior regulations be identified for elimination, and that the cost of planned regulations be prudently managed and controlled through a budgeting process.''

The Office of Management and Budget (OMB) has not designated this rule a significant regulatory action under section 3(f) of Executive Order 12866. Accordingly, OMB has not reviewed it. As this rule is not a significant regulatory action, this rule is exempt from the requirements of Executive Order 13771. *See* OMB's Memorandum ''Guidance Implementing Executive Order 13771, Titled 'Reducing Regulation and Controlling Regulatory Costs' '' (April 5, 2017). A regulatory analysis (RA) follows.

We developed an analysis of the costs and benefits of the rule to ascertain its probable impacts on industry.

Table 15 summarizes the regulatory changes that are expected to have no costs, and any qualitative benefits associated with them. The table also includes changes that affect portions of the methodology for calculating the base pilotage rates.

[81] Docket #USCG–2016–0268–0031.

[82] Docket #USCG–2016–0268–0032.

TABLE 15—REGULATORY CHANGES WITH NO COST OR COSTS CAPTURED IN THE RATE CHANGE

Changes	Description	Basis for no costs	Benefits
Mandatory change point on the Saint Lawrence River between Iroquois Lock and the area of Ogdensburg, NY.	Mandatory change point on the Saint Lawrence River between Iroquois Lock and the area of Ogdensburg, NY, that would become effective with the implementation of this final rule.	The addition of the change point will not require capital expenses. The only cost is for the new pilots, who are accounted for in the base pilotage rates and training surcharges.	Staffing additional pilots will help meet the increased demand for pilots to handle the additional assignments anticipated to be caused by the new change point. Additional pilots due to this change point should also serve to mitigate any potential delays and any potential fatigue that would occur from high pilotage demand without them.
Cancellation charges	Amending the cancellation charge provision in § 401.120(b) to ensure it explicitly states that the minimum charge for a cancellation is 4 hours plus necessary and reasonable travel expenses for the travel that occurs.	Clarification of existing text and current practice.	—Clarifies the current language to eliminate any potential confusion on the minimum charge for cancellations. —Clarification of the minimum charge ensures the recognition of pilots as a limited resource and encourages efficient use.
Surcharge provision	Adding a requirement to the surcharge regulation in § 401.401 to stop collecting funds once the assigned value has been recovered for the season.	Ensures the goal surcharge amount built into the year's rulemaking will not be surpassed, and prevents additional costs on industry.	Prevents excess amounts from being recouped from industry via the following year's rule.
Rename Return on Investment	Renaming Return on Investment as Working Capital Fund.	Clarifies the intent of the fund but does not change the method of calculation. Costs are included in the total revenues.	Clarifies the intent of this fund.
Set Pilot compensation for a 10-year period.	Addition of new language in § 404.104 that allows the Director to set compensation for a 10-year period to a compensation benchmark.	Pilot staffing costs are accounted for in the base pilotage rates.	Promotes target compensation stability and rate predictability.
Weighting Factors	Additional step in the ratemaking that accounts for the weighting factors.	Impacts the base pilotage rates, but does not impact the revenue projections.	Factors the impact of extra revenue generated by the weighting factors into the ratemaking analysis.

Table 16 summarizes the affected population, costs, and benefits of the regulatory requirements that are expected to have associated costs as a result of the rate change.

TABLE 16—REGULATORY ECONOMIC IMPACTS OF RATE CHANGE

Change	Description	Affected population	Costs	Benefits
Rate Changes	Under the Great Lakes Pilotage Act of 1960, the Coast Guard is required to review and adjust base pilotage rates annually.	Owners and operators of 230 vessels journeying the Great Lakes system annually.	$3,222,703	—New rates cover an association's necessary and reasonable operating expenses. —Provides fair compensation, adequate training, and sufficient rest periods for pilots. —Ensures the association makes enough money to fund future improvements.

The Coast Guard is required to review and adjust pilotage rates on the Great Lakes annually. See Sections II and III of this preamble for detailed discussions of the Coast Guard's legal basis and purpose for this rulemaking and for background information on Great Lakes pilotage ratemaking. Based on our annual review for this rulemaking, we are adjusting the pilotage rates for the 2017 shipping season to generate sufficient revenues for each district to reimburse their necessary and reasonable operating expenses, fairly compensate trained and rested pilots, and provide an appropriate working capital fund to use for improvements. The rate changes in this rule will lead to an increase in the cost per unit of service to shippers in all three districts, and result in an estimated annual cost increase to shippers.

In addition to the increase in payments that would be incurred by shippers in all three districts from the previous year as a result of the rate changes, we propose authorizing a temporary surcharge to allow the pilotage associations to recover training expenses that would be incurred in 2017. For 2017, we anticipate that there

will be no applicant pilots in District One, two applicant pilots in District Two, and seven applicant pilots in District Three. With a training cost of $150,000 per pilot, we estimate that Districts Two and Three will incur $300,000 and $1,050,000 in training expenses, respectively. These temporary surcharges would generate a combined $1,350,000 in revenue for the pilotage associations. Therefore, after accounting for the implementation of the temporary surcharges across all three districts, the payments made by shippers during the 2017 shipping season are estimated to be approximately $3,222,703 more than the payments that were estimated in 2016 (table 18).[83]

The purpose of this rulemaking is to propose new base pilotage rates and surcharges for training. The last full ratemaking was concluded in 2016. Table 17 summarizes the changes in the RA from the NPRM to the final rule. These changes were the result of public comments received after publication of the NPRM and SNPRM.

TABLE 17—SUMMARY OF CHANGES FROM NPRM TO FINAL RULE

Element of the analysis	NPRM	Final rule	Resulting change in RA
Target Pilot Compensation.	$326,114	$332,963	Data indirectly affects the calculation of projected revenues.
Operating expenses	Incorrectly omitted payment of applicant pilot salaries from D2 operating expenses.	Corrected for this error, added amount of $281,588 to operating expenses in District Two.	Data indirectly affects the calculation of projected revenues.
Staffing Model	Proposed to modify 46 CFR 404.103 to change the calculation to focus on pilot work cycle. Staffing model found 54 pilots are needed in the Great Lakes system.	Leaving 46 CFR 404.103 as is. Staffing model found 49 pilots are needed in the Great Lakes system.	No impact on RA. Revenue is based on the expected 45 working pilots that will be working during the 2017 season, which is less than the projected needed pilots.
APA dues	Attributed 15% of APA dues to legal fees.	Corrected to attribute 5% of APA dues to legal fees.	Data directly affects operating expenses, which indirectly affects the calculation of projected revenues.
Weighting factors	Did not account for weighting factors	Incorporates weighting factors into base rates.	No impact on RA. Affects the calculation of the base rates, but not the projected revenues.

Affected Population

The shippers affected by these rate changes are those owners and operators of domestic vessels operating on register (employed in foreign trade) and owners and operators of foreign vessels on routes within the Great Lakes system. These owners and operators must have pilots or pilotage service as required by 46 U.S.C. 9302. There is no minimum tonnage limit or exemption for these vessels. The statute applies only to commercial vessels and not to recreational vessels. U.S.-flagged vessels not operating on register and Canadian ''lakers,'' which account for most commercial shipping on the Great Lakes, are not required to have pilots by 46 U.S.C. 9302. However, these U.S.- and Canadian-flagged lakers may voluntarily choose to have a pilot.

We used 2013 through 2015 billing information from the Great Lakes Pilotage Management System (GLPMS) to estimate the average annual number of vessels affected by the rate adjustment. The GLPMS tracks data related to managing and coordinating the dispatch of pilots on the Great Lakes and billing in accordance with the services. Using that period, we found that a total of 407 unique vessels used pilotage services over the years 2013 through 2015. These vessels had a pilot dispatched to the vessel and billing information was recorded in the GLPMS. The number of invoices per vessel ranged from a minimum of 1 invoice per year to a maximum of 65 invoices per year. Of these vessels, 383 were foreign-flagged vessels and 24 were U.S.-flagged. The U.S.-flagged vessels were not operating on register and are not required to have a pilot per 46 U.S.C. 9302, but they can voluntarily choose to have a pilot. U.S.-flagged vessels may opt to have a pilot for varying reasons such as unfamiliarity with designated waters and ports, or for insurance purposes.

Vessel traffic is affected by numerous factors and varies from year to year. Therefore, rather than the total number of vessels over the time period, an average of the unique vessels using pilotage services from 2013 through 2015 is the best representation of vessels estimated to be affected by this rule's rate. From 2013 through 2015, an average of 230 vessels used pilotage services annually.[84] On average, 219 of these vessels are foreign-flagged vessels and 11 are U.S.-flagged vessels that voluntarily opt into the pilotage service.

Costs

The rate changes would generate costs on industry in the form of higher payments for shippers. We calculate the cost in two ways in this RA, as the total cost to shippers and as a percentage of vessel operating costs.

Total Cost to Shippers

We estimate the effect of the rate changes on shippers by comparing the total projected revenues needed to cover costs in 2016 with the total projected revenues to cover costs in 2017, including any temporary surcharges authorized by the Coast Guard. The Coast Guard sets pilotage rates so that the pilot associations receive enough revenue to cover their necessary and reasonable expenses. The shippers pay these rates when they have a pilot as required by 46 U.S.C. 9302, or when U.S.-flagged vessels not operating on register voluntarily choose to have a pilot. Therefore, the aggregate payments of the shippers to the pilot associations are equal to the projected necessary revenues for the pilot associations. The revenues each year represent the total costs that shippers must pay for pilotage services, and the change in the revenues from the previous year is the additional cost to shippers from this rulemaking.

[83] Total payments across all three districts are equal to the increase in payments incurred by shippers as a result of the rate changes plus the temporary surcharges applied to traffic in Districts One, Two, and Three.

[84] Some vessels entered the Great Lakes multiple years, affecting the average number of unique vessels utilizing pilotage services in any given year.

The effect of the rate changes on shippers is estimated from the district pilotage projected revenues and the surcharges described in this preamble. We estimate that for the 2017 shipping season, the projected revenue needed for all three districts is $20,976,381. Temporary surcharges on traffic in District Two and District Three would be applied for the duration of the 2017 season in order for the pilotage associations to recover training expenses incurred for applicant pilots. We estimate that the pilotage associations require an additional $300,000 and $1,050,000 in revenue for applicant training expenses in Districts Two and Three, respectively. This is an additional cost to shippers of $1,350,000 during the 2017 shipping season. Adding the projected revenue to the surcharges, we estimate the pilotage associations' total projected needed revenue for 2017 would be $22,326,381. The 2017 projected revenues for the districts are from table 9 of this preamble. To estimate the additional cost to shippers from this rule, we compare the 2017 total projected revenues to the 2016 projected revenues. In the 2016 rulemaking,[85] we estimated the total projected revenue needed for 2016, including surcharges, is $19,103,678. This is the best approximation of 2016 revenues as, at the time of this publication, we do not have audited data available for the 2016 shipping season to revise these projections. Table 18 shows the revenue projections for 2016 and 2017 and details the additional cost increases to shippers by area and district as a result of the rate changes and temporary surcharges on traffic in Districts One, Two, and Three.

TABLE 18—EFFECT OF THE RULE BY AREA AND DISTRICT

[$U.S.; Non-discounted]

Area	Revenue needed in 2016	2016 temporary surcharge	Total 2016 projected revenue	Revenue needed in 2017	2017 Temporary surcharge	Total 2017 projected revenue	Additional costs of this rule
Total, District One	$5,354,945	$450,000	$5,804,945	$7,109,019	$0	$7,109,019	$1,304,074
Total, District Two	5,629,641	300,000	5,929,641	6,633,491	300,000	6,933,491	1,003,850
Total, District Three	6,469,092	900,000	7,369,092	7,233,871	1,050,000	8,283,871	914,779
System Total	17,453,678	1,650,000	19,103,678	20,976,381	1,350,000	22,326,381	3,222,703

The resulting difference between the projected revenue in 2016 and the projected revenue in 2017 is the annual change in payments from shippers to pilots as a result of the rate change imposed by this rule. The effect of the rate change in this rule on shippers varies by area and district. The rate changes, after taking into account the increase in pilotage rates and the addition of temporary surcharges, would lead to affected shippers operating in District One, District Two, and District Three experiencing an increase in payments of $1,304,074, $1,003,850, and $914,779, respectively, from the previous year. The overall adjustment in payments would be an increase in payments by shippers of $3,222,703 across all three districts (a 17 percent increase over 2016, including surcharges). Because the Coast Guard must review and prescribe rates for Great Lakes Pilotage annually, the effects are estimated as single year costs rather than annualized over a 10-year period.

Table 19 shows the difference in revenue by component from 2016 to 2017.[86] The majority of the increase in revenue is due to the addition of 8 pilots that were authorized in the 2016 rule. These eight pilots trained during 2016 are full-time working pilots during the 2017 shipping season. These pilots will be compensated at the target compensation established in the 2016 final rule, plus inflation ($332,963 per pilot). The addition of these pilots to full working status accounts for $2,663,704 of the increase. The remaining amount is attributed to inflation of operating expenses, working capital fund, and differences in the surcharges from 2016.

TABLE 19—DIFFERENCE IN REVENUE BY COMPONENT

Revenue component	Revenue needed in 2016	Revenue needed in 2017	Difference (2017 revenue −2016 Revenue)
Adjusted Operating Expenses	$4,677,518	$5,155,280	$477,762
Total Target Pilot Compensation	12,066,226	14,983,335	2,917,109
Working Capital Fund	709,934	837,766	127,832
Total Revenue Needed, without Surcharge	17,453,678	20,976,381	3,522,703
Surcharge	1,650,000	1,350,000	−300,000
Total Revenue Needed, with Surcharge	19,103,678	22,326,381	3,222,703

Pilotage Rates as a Percentage of Vessel Operating Costs

To estimate the impact of U.S. pilotage costs on the foreign vessels affected by the rate adjustment, we looked at the pilotage costs as a percentage of a vessel's costs for an entire voyage. The part of the trip on the Great Lakes using a pilot is only a portion of the whole trip. The affected vessels are often traveling from a foreign port, and the days without a pilot on the total trip often exceed the days a pilot is needed.

[85] 2016 projected revenues are from the 2016 rulemaking, 81 FR 11937, Figures 31 and 32.

[86] The 2016 projected revenues are from the 2016 rulemaking, 81 FR 11934, Figures 24 and 28. The 2017 projected revenues are from Table 106 of this NPRM.

To estimate this impact, we used 2013 through 2015 vessel arrival data from the Coast Guard's Ship Arrival Notification System and pilotage billing data from the GLPMS. A random sample of 50 arrivals was taken from GLPMS data. To estimate the impact of pilotage costs on the costs of an entire trip, we estimated the length of each one-way trip. We used the vessel name and the date of the arrival to find the last port of call before entering the Great Lakes system. The date of the departure from this port was used as the start date of the trip. To find the end date of the trip we used GLPMS data to find all the pilotage charges associated with this vessel during this trip in the Great Lakes system. The last pilotage charge before beginning the trip to exit the system was used as the end date of the one-way trip. We estimated the total operating cost by multiplying the number of days for each trip by the 2015 average daily operating cost and added this to the total pilotage costs from GLPMS for each trip. In 2015 the average daily operating costs, excluding fixed costs, for Great Lakes bulkers and tankers ranged roughly from $5,191 to $7,879.[87] The total pilotage charges for each trip were updated to the 2016 rates using the average rate increases in the Great Lakes Pilotage Rates 2013–2016 Annual Review and Adjustments final rules.[88] The total updated pilotage charges for each trip were then divided by the total operating cost of the trip. We found that for a vessel's one-way trips, the U.S. pilotage costs could account for approximately 16.9 percent [89] of the total operating costs for a foreign vessel's voyage using 2016 rates.

We also estimated the impact of the rate increase in this rule. We took the same 50 trips and updated the pilotage costs to the 2017 rates, an average increase of 20 percent, excluding surcharges. With this rule's rates for 2017, pilotage costs are estimated to account for 19.6 percent of total operating costs, or a 2.7 percentage point increase [90] over the current cost. The total operating costs do not include the fixed costs of the vessels. If these costs were included in the total costs, the pilotage rates as a percentage of total costs would be lower.

Benefits

This rule allows the Coast Guard to meet the requirements in 46 U.S.C. 9303 to review the rates for pilotage services on the Great Lakes. The rate changes will promote safe, efficient, and reliable pilotage service on the Great Lakes by ensuring rates cover an association's operating expenses; provide fair pilot compensation, adequate training, and sufficient rest periods for pilots; and ensures the association makes enough money to fund future improvements. The rate changes will also help recruit and retain pilots, which will ensure a sufficient number of pilots to meet peak shipping demand, which would help reduce delays caused by pilot shortages.

The amendment of the cancellation charge in § 401.120(b) will prevent confusion and help ensure that it explicitly states that the minimum charge for a cancellation is 4 hours. The limitation to the surcharge regulation in § 401.401 would prevent excess amounts from being recouped via the following year's rule. The changes to § 404.104 will promote target compensation stability and rate predictability.

B. Small Entities

Under the Regulatory Flexibility Act, 5 U.S.C. 601–612, we have considered whether this rule would have a significant economic effect on a substantial number of small entities. The term ''small entities'' comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000 people.

For the rule, we reviewed recent company size and ownership data for the vessels identified in GLPMS and we reviewed business revenue and size data provided by publicly available sources such as MANTA [91] and ReferenceUSA.[92] As described in Section VI.A of this preamble, Regulatory Planning and Review, we found that a total of 407 unique vessels used pilotage services from 2013 through 2015. These vessels are owned by 119 entities. We found that of the 119 entities that own or operate vessels engaged in trade on the Great Lakes affected by this rule, 104 are foreign entities that operate primarily outside of the United States. The remaining 15 entities are U.S. entities. We compared the revenue and employee data found in the company search to the Small Business Administration's (SBA) Table of Small Business Size Standards [93] to determine how many of these companies are small entities. Table 20 shows the NAICS codes of the U.S. entities and the small entity standard size established by the SBA.

TABLE 20—NAICS CODES AND SMALL ENTITIES SIZE STANDARDS

NAICS	Description	Small business size standard
238910	Site Preparation Contractors	$15 million.
441222	Boat Dealers	$32.5 million.
483113	Coastal & Great Lakes Freight Transportation	750 employees.
483211	Inland Water Freight Transportation	750 employees.
483212	Inland Water Passenger Transportation	500 employees.
487210	Scenic & Sightseeing Transportation, Water	$7.5 million.
488320	Marine Cargo Handling	$38.5 million.

[87] ''*Ship operating costs: Current and future trends,*'' Richard Grenier, Moore Stephens LLP, December 2015. The 2015 weighted average operating cost is estimated at $5,191 for a handysize bulker, $5,771 for a handymax bulker, and $7,879 for a product tanker. These costs include only the costs of operating and do not include any fixed costs of the vessels, such as amortization of vessel construction costs. The operating costs include crew wages, provisions, other crew costs, lubricating oils and store costs, spares, repair and maintenance, P&I insurance, marine insurance, registration costs, management fees, and sundry expenses.

[88] The average percentage changes in the rates for 2013–2016, were 1.87 percent, 2.5 percent, 10 percent, and 12 percent, respectively.

[89] For the random sample of 50 arrivals, the average of the pilotage costs as a percentage of the total operating costs was 16.9 percent. The percentages ranged from a low of 3.2 percent to a high of 35.2 percent.

[90] 19.6 percent of total operating costs in 2017 − 16.9 percent of total operating costs in 2016 = 2.7 percent incremental increase of pilotage costs as a percentage of total operating costs.

[91] See *http://www.manta.com/.*

[92] See *http://resource.referenceusa.com/.*

[93] Source: *https://www.sba.gov/contracting/getting-started-contractor/make-sure-you-meet-sba-size-standards/table-small-business-size-standards.* SBA has established a Table of Small Business Size Standards, which is matched to NAICS industries. A size standard, which is usually stated in number of employees or average annual receipts (''revenues''), represents the largest size that a business (including its subsidiaries and affiliates) may be considered in order to remain classified as a small business for SBA and Federal contracting programs.

TABLE 20—NAICS CODES AND SMALL ENTITIES SIZE STANDARDS—Continued

NAICS	Description	Small business size standard
488330	Navigational Services to Shipping	$38.5 million.
488510	Freight Transportation Arrangement	$15 million.

The entities all exceed the SBA's small business standards for small businesses. Further, these U.S. entities operate U.S.-flagged vessels and are not required to have pilots as required by 46 U.S.C. 9302, because they are not engaged in foreign commerce.

In addition to the owners and operators of vessels affected by this rule, there are three U.S. entities affected by the rule that receive revenue from pilotage services. These are the three pilot associations that provide and manage pilotage services within the Great Lakes districts. Two of the associations operate as partnerships and one operates as a corporation. These associations are designated with the same NAICS industry classification and small-entity size standards described above, but they have fewer than 500 employees; combined, they have approximately 65 employees. We expect no adverse effect to these entities from this rule because all associations receive enough revenue to balance the projected expenses associated with the projected number of bridge hours and pilots.

We did not find any small not-for-profit organizations that are independently owned and operated and are not dominant in their fields. We did not find any small governmental jurisdictions with populations of fewer than 50,000 people. Based on this analysis, we found this rulemaking, if promulgated, would not affect a substantial number of small entities.

Therefore, the Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

C. Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996, Public Law 104–121, we want to assist small entities in understanding this rule so that they can better evaluate its effects on them and participate in the rulemaking. If the rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please consult Mr. Todd Haviland, Director, Great Lakes Pilotage, Commandant (CG–WWM–2), Coast Guard; telephone 202–372–2037, email *Todd.A.Haviland@uscg.mil,* or fax 202–372–1914. The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247).

D. Collection of Information

This rule will call for no new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). This rule will not change the burden in the collection currently approved by OMB under OMB Control Number 1625–0086, Great Lakes Pilotage Methodology.

E. Federalism

A rule has implications for federalism under Executive Order 13132 (''Federalism'') if it has 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. We have analyzed this rule under that order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132. Our analysis follows.

Congress directed the Coast Guard to establish ''rates and charges for pilotage services.'' (*See* 46 U.S.C. 9303(f).) This regulation is issued pursuant to that statute and is preemptive of state law as specified in 46 U.S.C. 9306. Under 46 U.S.C. 9306, a ''State or political subdivision of a State may not regulate or impose any requirement on pilotage on the Great Lakes.'' As a result, States or local governments are expressly prohibited from regulating within this category. Therefore, the rule is consistent with the principles of federalism and preemption requirements in Executive Order 13132.

While it is well settled that States may not regulate in categories in which Congress intended the Coast Guard to be the sole source of a vessel's obligations, the Coast Guard recognizes the key role that State and local governments may have in making regulatory determinations. Additionally, for rules with implications and preemptive effect, Executive Order 13132 specifically directs agencies to consult with State and local governments during the rulemaking process. If you believe this rule has implications for federalism under Executive Order 13132, please contact the person listed in the **FOR FURTHER INFORMATION** section of this preamble.

F. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995, 2 U.S.C. 1531–1538, requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

G. Taking of Private Property

This rule will not cause a taking of private property or otherwise have taking implications under Executive Order 12630 (''Governmental Actions and Interference with Constitutionally Protected Property Rights'').

H. Civil Justice Reform

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, (''Civil Justice Reform''), to minimize litigation, eliminate ambiguity, and reduce burden.

I. Protection of Children

We have analyzed this rule under Executive Order 13045 (''Protection of Children from Environmental Health Risks and Safety Risks''). This rule is not an economically significant rule and will not create an environmental risk to health or risk to safety that might disproportionately affect children.

J. Indian Tribal Governments

This rule does not have tribal implications under Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments'') because it would not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

K. Energy Effects

We have analyzed this rule under Executive Order 13211 (''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use''). We have determined that it is not a ''significant energy action'' under that order because it is not a ''significant regulatory action'' under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

L. Technical Standards

The National Technology Transfer and Advancement Act, codified as a note to 15 U.S.C. 272, directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through OMB, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.,* specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies. This rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

M. Environment

We have analyzed this rule under Department of Homeland Security Management Directive 023–01 and Commandant Instruction M16475.lD, which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have determined that it is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. A Record of Environmental Consideration supporting this determination is available in the docket where indicated in the **ADDRESSES** section of this preamble. This rule is categorically excluded under paragraphs 34(a), regulations which are editorial or procedural, of the Coast Guard's NEPA Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1D.

List of Subjects

46 CFR Part 401

Administrative practice and procedure, Great Lakes, Navigation (water), Penalties, Reporting and recordkeeping requirements, Seamen.

46 CFR Part 404

Great Lakes, Navigation (water), Seamen.

For the reasons discussed in the preamble, the Coast Guard amends 46 CFR parts 401 and 404 as follows:

PART 401—GREAT LAKES PILOTAGE REGULATIONS

■ 1. The authority citation for part 401 continues to read as follows:

Authority: 46 U.S.C. 2103, 2104(a), 6101, 7701, 8105, 9303, 9304; Department of Homeland Security Delegation No. 0170.1(II)(92.a), (92.d), (92.e), (92.f).

■ 2. Revise § 401.401 to read as follows:

§ 401.401 Surcharges.

To facilitate safe, efficient, and reliable pilotage, and for good cause, the Director may authorize surcharges on any rate or charge authorized by this subpart. Surcharges must be proposed for prior public comment and may not be authorized for more than 1 year. Once the approved amount has been received, the pilot association is not authorized to collect any additional funds under the surcharge authority and must cease such collections for the remainder of that shipping season.

■ 3. Revise § 401.405 to read as follows:

§ 401.405 Pilotage rates and charges.

(a) The hourly rate for pilotage service on—

(1) The St. Lawrence River is $601;

(2) Lake Ontario is $408;

(3) Lake Erie is $429;

(4) The navigable waters from Southeast Shoal to Port Huron, MI is $580;

(5) Lakes Huron, Michigan, and Superior is $218; and

(6) The St. Mary's River is $514.

* * * * *

■ 4. Revise § 401.420 to read as follows:

§ 401.420 Cancellation, delay, or interruption in rendition of services.

* * * * *

(b) When an order for a U.S. pilot's service is cancelled, the vessel can be charged for the pilot's reasonable travel expenses for travel that occurred to and from the pilot's base, and the greater of—

(1) Four hours; or

(2) The time of cancellation and the time of the pilot's scheduled arrival, or the pilot's reporting for duty as ordered, whichever is later.

* * * * *

■ 5. Revise § 401.450 as follows:

■ a. Redesignate paragraphs (b) through (j) as paragraphs (c) through (k), respectively; and

■ b. Add new paragraph (b) to read as follows:

§ 401.450 Pilotage change points.

* * * * *

(b) The Saint Lawrence River between Iroquois Lock and the area of Ogdensburg, NY, beginning October 2, 2017;

PART 404—GREAT LAKES PILOTAGE RATEMAKING

■ 6. The authority citation for part 404 continues to read as follows:

Authority: 46 U.S.C. 2103, 2104(a), 9303, 9304; Department of Homeland Security Delegation No. 0170.1(II)(92.a), (92.f).

■ 7. Amend § 404.101(a) as follows:

§ 404.100 Ratemaking and annual reviews in general.

(a) The Director establishes base pilotage rates by a full ratemaking pursuant to § 404.101–404.110 of this part, conducted at least once every 5 years and completed by March 1 of the first year for which the base rates will be in effect. Base rates will be set to meet the goal specified in § 404.1(a) of this part.

■ 8. Amend § 404.103 as follows:

■ a. In paragraph (a), following the words ''dividing each area's'' remove the word ''peak'' and add, in its place, the word ''seasonal''; and

■ b. Revise paragraph (b) to read as follows:

§ 404.103 Ratemaking step 3: Determine number of pilots needed.

* * * * *

(b) Pilotage demand and the base seasonal work standard are based on available and reliable data, as so deemed by the Director, for a multi-year base period. The multi-year period is the 10 most recent full shipping seasons, and the data source is a system approved under 46 CFR 403.300. Where such data are not available or reliable, the Director also may use data, from additional past full shipping seasons or other sources, that the Director determines to be available and reliable.

* * * * *

■ 9. Revise § 404.104 to read as follows:

§ 404.104 Ratemaking step 4: Determine target pilot compensation benchmark.

At least once every 10 years, the Director will set a base target pilot compensation benchmark using the most relevant available non-proprietary information. In years in which a base compensation benchmark is not set, target pilot compensation will be adjusted for inflation using the CPI for the Midwest region or a published predetermined amount. The Director determines each pilotage association's total target pilot compensation by multiplying individual target pilot compensation by the number of pilots projected under § 404.103(d) of this part.

§ 404.105 [Amended]

■ 10. In the section heading of § 404.105, remove the words ''return on investment'' and add, in their place, the words ''working capital fund.''

■ 11. In the first sentence of § 404.105, remove the words ''return on investment'' and add, in their place, the words ''working capital fund.''

■ 12. Revise § 404.107 to read as follows:

§ 404.107 Ratemaking step 7: Initially calculate base rates.

The Director initially calculates base hourly rates by dividing the projected needed revenue from § 404.106 of this part by averages of past hours worked in each district's designated and undesignated waters, using available and reliable data for a multi-year period set in accordance with § 404.103(b) of this part.

■ 13. Revise § 404.108 to read as follows:

§ 404.108 Ratemaking step 8: Calculate average weighting factors by Area.

The Director calculates the average weighting factor for each area by computing the 10-year rolling average of weighting factors applied in that area, beginning with the year 2014. If less than 10 years of data are available, the Director calculates the average weighting factor using data from each year beginning with 2014.

■ 14. Add new § 404.109 to read as follows:

§ 404.109 Ratemaking step 9: Calculate revised base rates.

The Director calculates revised base rates for each area by dividing the initial base rate (from Step 7) by the average weighting factor (from Step 8) to produce a revised base rate for each area.

■ 15. Add new § 404.110 to read as follows:

§ 404.110 Ratemaking step 10: Review and finalize rates.

The Director reviews the base pilotage rates calculated in § 404.109 of this part to ensure they meet the goal set in § 404.1(a) of this part, and either finalizes them or first makes necessary and reasonable adjustments to them based on requirements of Great Lakes pilotage agreements between the United States and Canada, or other supportable circumstances.

Dated: August 24, 2017.

Michael D. Emerson,

Director, Marine Transportation Systems, U.S. Coast Guard.

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