

and enforced by the responsible designated departmental representatives to the End-User Review Committee. Delaying this action's effectiveness would likely cause confusion regarding which items are authorized by the U.S. Government and in turn stifle the purpose of the VEU Program.

Accordingly, it is contrary to the public interest to delay this rule's effectiveness.

No other law requires that a notice of proposed rulemaking and an opportunity for public comment be given for this final rule. Because a notice of proposed rulemaking and an

opportunity for public comment are not required under the APA or by any other law, the analytical requirements of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) are not applicable. As a result, no final regulatory flexibility analysis is required and none has been prepared.

List of Subjects in 15 CFR Part 748

Administrative practice and procedure, Exports, Reporting and recordkeeping requirements.

Accordingly, part 748 of the EAR (15 CFR parts 730–774) is amended as follows:

PART 748—[AMENDED]

■ 1. The authority citation for part 748 continues to read as follows:

Authority: 50 U.S.C. 4601 *et seq.*; 50 U.S.C. 1701 *et seq.*; E.O. 13026, 61 FR 58767, 3 CFR, 1996 Comp., p. 228; E.O. 13222, 66 FR 44025, 3 CFR, 2001 Comp., p. 783; Notice of August 7, 2015, 80 FR 48233 (August 11, 2015).

■ 2. Amend Supplement No. 7 to part 748 by revising the entry for “Advanced Micro Devices China, Inc.” in “China (People’s Republic of)” to read as follows:

SUPPLEMENT NO. 7 TO PART 748—AUTHORIZATION VALIDATED END-USER (VEU): LIST OF VALIDATED END-USERS, RESPECTIVE ITEMS ELIGIBLE FOR EXPORT, RE-EXPORT AND TRANSFER, AND ELIGIBLE DESTINATIONS

Country	Validated end-user	Eligible items (by ECCN)	Eligible destination	Federal Register citation
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
China (People’s Republic of).	Advanced Micro Devices China, Inc.	3D002, 3D003, 3E001 (limited to “technology” for items classified under 3C002 and 3C004 and “technology” for use during the International Technology Roadmap for Semiconductors (ITRS) process for items classified under ECCNs 3B001 and 3B002), 3E002 (limited to “technology” for use during the ITRS process for items classified under ECCNs 3B001 and 3B002), 3E003.e (limited to the “development” and “production” of integrated circuits for commercial applications), 4D001 and 4E001 (limited to the “development” of products under ECCN 4A003).	Advanced Micro Devices (Shanghai) Co., Ltd., Buildings 33 (Unit 1), 46, 47, 48 & 49, River Front Harbor, Zhangjiang Hi-Tech Park, No. 1387 Zhang Dong Road, Pudong District, Shanghai, China 201203. AMD Technology Development (Beijing) Co., Ltd., North and South Buildings, RaycomInfotech, Park Tower C, No. 2 Science Institute South Rd., Zhong Guan Cun, Haidian District, Beijing, China 100190.	75 FR 25763, 5/10/10. 76 FR 2802, 1/18/11. 78 FR 3319, 1/16/13. 81 FR [INSERT PAGE NUMBER], 6/23/16.
Nothing in this Supplement shall be deemed to supersede other provisions in the EAR, including but not limited to § 748.15(c).				
			AMD Products (China) Co. Ltd., North and South Buildings, RaycomInfotech Park Tower C, No. 2 Science Institute South Rd., Zhong Guan Cun, Haidian District, Beijing, China 100190.	
*	*	*	*	*

Dated: June 17, 2016.
Matthew S. Borman,
Deputy Assistant Secretary for Export Administration.
 [FR Doc. 2016–14902 Filed 6–22–16; 8:45 am]
BILLING CODE 3510–33–P

SECURITIES AND EXCHANGE COMMISSION
17 CFR Part 241
[Release No. 34–78102; File No. S7–03–16]
Commission Interpretation Regarding Automated Quotations Under Regulation NMS
AGENCY: Securities and Exchange Commission.

ACTION: Final interpretation.
SUMMARY: The Securities and Exchange Commission is issuing a final interpretation with respect to the definition of automated quotation under Rule 600(b)(3) of Regulation NMS.
DATES: Effective June 23, 2016.
FOR FURTHER INFORMATION CONTACT: Richard Holley III, Assistant Director, Michael Bradley, Special Counsel, or Michael Ogershok, Attorney-Adviser, Office of Market Supervision, at 202–551–5777, Division of Trading and Markets, Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–7010.
SUPPLEMENTARY INFORMATION:

I. Background
 Rule 611 of Regulation NMS provides intermarket protection against trade-throughs for “automated” (as opposed to “manual”) quotations of NMS stocks. Under Regulation NMS, an “automated” quotation is one that, among other things, can be executed “immediately and automatically” against an incoming immediate-or-cancel order. The Regulation NMS Adopting Release issued in 2005 makes clear that this formulation was intended to distinguish and exclude from protection quotations on manual markets that produced delays measured in seconds in responding to an incoming order, because delays of that magnitude would impair fair and efficient access to an

exchange's quotations.¹ In the Regulation NMS Adopting Release, the Commission interpreted the term "immediate" to "preclude[] any coding of automated systems or other type of intentional device that would delay the action taken with respect to a quotation."²

In light of the application of Investors' Exchange LLC ("IEX")³ to register as an exchange and technological and market developments since the adoption of Regulation NMS, the Commission decided to revisit this interpretation. The Commission believes its prior interpretation should be updated given technological and market developments since the adoption of Regulation NMS, in particular the emergence of low latency trading strategies and related technology that permit trading decisions to be made in microseconds, neither of which were contemplated by the Commission or commenters in 2005.⁴ As further addressed below, the Commission now interprets "immediate" in the context of Regulation NMS as not precluding a *de minimis* intentional delay—*i.e.*, a delay so short as to not frustrate the purposes of Rule 611 by impairing fair and efficient access to an exchange's quotations.⁵

A. Regulation NMS: Automated Quotation and Protected Quotation

In general, Rule 611 under Regulation NMS (the "Order Protection Rule," or "Trade-Through Rule") protects the best "automated" quotations of exchanges by

¹ See Securities Exchange Act Release No. 51808 (June 9, 2005) 70 FR 37496, 37500 & n.21, 37501 (June 29, 2005) ("Regulation NMS Adopting Release"). The Commission notes that the smallest time increment suggested by commenters at the time Regulation NMS was adopted was 250 milliseconds. See *id.* at 37518. See also *infra* note 15 (discussing the distinction between "automated quotations" and "manual quotations" and noting that "[t]he difference in speed between automated and manual markets often is the difference between a 1-second response and a 15-second response . . .").

² See Regulation NMS Adopting Release, *supra* note 1, at 37534.

³ See Securities Exchange Act Release Nos. 75925 (September 15, 2015), 80 FR 57261 (September 22, 2015) (File No. 10-222) (original notice); and 77406 (March 18, 2016), 81 FR 15765 (March 24, 2016) (File No. 10-222) (notice of amendments, order instituting proceedings, and extension of time).

⁴ IEX's Form 1 includes an intentional access delay that imposes 350 microseconds of one-way latency for non-routable orders. IEX's access delay is discussed in the Commission's final order on IEX's Form 1. See Securities Exchange Act Release No. 78101 (June 17, 2016) (File No. 10-222) (order granting IEX's exchange registration) ("IEX Form 1 Approval Order").

⁵ See Regulation NMS Adopting Release, *supra* note 1, at 37520 (noting that "[f]or a trading center to qualify as entitled to display any protected quotations, the public in general must have fair and efficient access to a trading center's quotations").

obligating other trading centers to honor those "protected" quotations by not executing trades at inferior prices, or "trading through" such best automated quotations.⁶ Only an exchange that is an "automated trading center"⁷ displaying an "automated quotation"⁸ is entitled to this protection.⁹ Trading centers must establish, maintain, and enforce written policies and procedures that are reasonably designed to prevent trade-throughs of protected quotations, unless an exception or exemption applies.¹⁰

There are several provisions in Regulation NMS that impact whether the Order Protection Rule applies. First, Rule 600(b)(58) defines a "protected quotation" as a "protected bid or a protected offer."¹¹ Rule 600(b)(57), in turn, defines a "protected bid or protected offer" as a quotation in an NMS stock that is: (i) Displayed by an "automated trading center," (ii) disseminated pursuant to an effective national market system plan, and (iii) an "automated quotation" that is the best bid or best offer of a national securities

⁶ See 17 CFR 242.611. When it adopted Regulation NMS, the Commission explained that one purpose of the Order Protection Rule was to incentivize greater use of displayed limit orders, which contribute to price discovery and market liquidity, by protecting them from trade-throughs. See Regulation NMS Adopting Release, *supra* note 1, at 37516-17. In discussing whether to apply order protection to non-automated, "manual" quotations, the Commission stated that "providing protection to manual quotations, even limited to trade-throughs beyond a certain amount, potentially would lead to undue delays in the routing of investor orders, thereby not justifying the benefits of price protection." *Id.* at 37518. The Commission also noted that "those who route limit orders will be able to control whether their orders are protected by evaluating the extent to which various trading centers display automated versus manual quotations." *Id.* In addition, the Commission intended that the Order Protection Rule would reinforce a broker's duty of best execution by prohibiting executions at inferior prices absent an exception. See *id.* at 37516 ("Given the large number of trades that fail to obtain the best displayed prices (e.g., approximately 1 in 40 trades for both Nasdaq and NYSE stocks), the Commission is concerned that many of the investors that ultimately received the inferior price in these trades may not be aware that their orders did not, in fact, obtain the best price. The Order Protection Rule will backstop a broker's duty of best execution on an order-by-order basis by prohibiting the practice of executing orders at inferior prices, absent an applicable exception.").

⁷ See 17 CFR 242.600(b)(4). References to "exchange" used herein apply also to facilities of national securities associations. See 17 CFR 242.600(b)(57).

⁸ See 17 CFR 242.600(b)(3).

⁹ See 17 CFR 242.600(b)(57) (defining "protected bid or protected offer") and 242.600(b)(58) (defining "protected quotation"). See also Regulation NMS Adopting Release, *supra* note 1, at 37504 (stating that "[t]o qualify for protection, a quotation must be automated").

¹⁰ 17 CFR 242.611(a)(1).

¹¹ 17 CFR 242.600(b)(58).

exchange or national securities association.¹²

In order for an exchange to operate as an "automated trading center," it must, among other things, have "implemented such systems, procedures, and rules as are necessary to render it capable of displaying quotations that meet the requirements for an 'automated quotation' set forth in [Rule 600(b)(3) of Regulation NMS]." ¹³ Rule 600(b)(3) defines an "automated quotation" as one that:

- i. Permits an incoming order to be marked as immediate-or-cancel;
- ii. Immediately and automatically executes an order marked as immediate-or-cancel against the displayed quotation up to its full size;
- iii. Immediately and automatically cancels any unexecuted portion of an order marked as immediate-or-cancel without routing the order elsewhere;
- iv. Immediately and automatically transmits a response to the sender of an order marked as immediate-or-cancel indicating the action taken with respect to such order; and
- v. Immediately and automatically displays information that updates the displayed quotation to reflect any change to its material terms.¹⁴

Any quotation that does not meet the requirements for an automated quotation is defined in Rule 600(b)(37) as a "manual" quotation.¹⁵

¹² 17 CFR 242.600(b)(57).

¹³ 17 CFR 242.600(b)(4). Rule 600(b)(4) contains additional requirements that must be satisfied in order to be an automated trading center. Those requirements are not at issue for purposes of this interpretation.

¹⁴ See 17 CFR 242.600(b)(3). See also Regulation NMS Adopting Release, *supra* note 1, at 37504.

¹⁵ Regulation NMS Adopting Release, *supra* note 1, at 37534. See also 17 CFR 242.600(b)(37) (defining "manual quotation"). The Commission also provided context as to the distinction between "automated quotations" and "manual quotations." At the time of the adoption of Regulation NMS, manual quotations and markets that primarily were centered around human interaction in a floor-based trading environment, including "hybrid" manual-automated trading facilities, experienced processing delays for inbound orders that were measured in multiple seconds. See Regulation NMS Adopting Release, *supra* note 1, at 37500 n.21 ("One of the primary effects of the Order Protection Rule adopted today will be to promote much greater speed of execution in the market for exchange-listed stocks. The difference in speed between automated and manual markets often is the difference between a 1-second response and a 15-second response . . ."). In contrast to floor-based and hybrid markets that existed at the time Regulation NMS was adopted, newer automated matching systems coming more widely into use removed the human element and instead immediately matched buyers and sellers electronically. The Commission also explained that the Order Protection Rule took a substantially different approach to intermarket price protection than the existing trade-through protection regime at the time—the Intermarket Trading System ("ITS") Plan. See *id.* at 37501. As the Commission noted, the ITS provisions did not

In adopting Regulation NMS, the Commission recognized that there would be unintentional time delays by automated trading centers in responding to orders, albeit very short ones.¹⁶ Although a number of commenters on Regulation NMS advocated for a specific time standard, ranging from one second down to 250 milliseconds,¹⁷ to distinguish between manual and automated quotations,¹⁸ the Commission declined to set such a standard.¹⁹ Instead, in interpreting the term “immediate[]” when adopting Rules 600 and 611, the Commission stated that “[t]he term ‘immediate’ precludes any coding of automated systems or other type of intentional device that would delay the action taken with respect to a quotation.”²⁰

The only precise time standards approved by the Commission in Rule 611 and the Regulation NMS Adopting Release arise in the context of two exceptions to Rule 611 covering circumstances in which trade-through protection would not apply. These exceptions illustrate the time dimensions the Commission had in mind in distinguishing quotations that should receive trade-through protection from those that should not, and notably, both use a one-second standard.²¹

distinguish between manual and automated quotations and “fail[ed] to reflect the disparate speed of response between manual and automated quotations” as they “were drafted for a world of floor-based markets.” *Id.* As a result, “[b]y requiring order routers to wait for a response from a manual market, the ITS trade-through provisions can cause an order to miss both the best price of a manual quotation and slightly inferior prices at automated markets that would have been immediately accessible.” *Id.* In addition, the Commission emphasized that Rule 611 does not “supplant or diminish” a broker-dealer’s duty of best execution. *See id.* at 37538.

¹⁶ *See infra* note 23 and accompanying text (discussing the exception in Rule 611(b)(1) for small unintentional delays).

¹⁷ A millisecond is one thousandth of a second.

¹⁸ *See* Regulation NMS Adopting Release, *supra* note 1, at 37519.

¹⁹ *See id.* at 37519 (“The definition of automated quotation as adopted does not set forth a specific time standard for responding to an incoming order.”).

²⁰ *Id.* at 37534. The Commission also stated that the standard for responding to an incoming order “should be ‘immediate,’ *i.e.*, a trading center’s systems should provide the fastest response possible without any programmed delay.” *Id.* at 37519. Further, the Commission also stated that, for a quotation “[t]o qualify as ‘automatic,’ no human discretion in determining any action taken with respect to an order may be exercised after the time an order is received,” and “a quotation will not qualify as ‘automated’ if any human intervention after the time an order is received is allowed to determine the action taken with respect to the quotation.” *Id.* at 37519 and 37534.

²¹ *See* 17 CFR 242.611(b)(1) and (8); *see also* Regulation NMS Adopting Release, *supra* note 1, at 37519 (discussing the one-second standard in Rule 611(b)(1)) and *id.* at 37523 (discussing the one-

Specifically, Rule 611(b)(1) provides that trading centers may trade through quotations of automated trading centers that experience a “failure, material delay, or malfunction.”²² The Commission accepted that the “immediate” standard necessarily would accommodate unintentional delays below the threshold of a “material delay,” which it interpreted in light of “current industry conditions” as one where a market was “repeatedly failing to respond within one second after receipt of an order.”²³ The Commission similarly established a one-second standard for the exception in Rule 611(b)(8), which excepts trade-through protection where the trading center that was traded-through had displayed, within the prior one second, a price equal or inferior to the price of the trade-through transaction.²⁴ In discussing the 611(b)(8) exception, the Commission stated that it “generally does not believe that the benefits would justify the costs imposed on trading centers of attempting to implement an intermarket price priority rule at the level of sub-second time increments. Accordingly, Rule 611 has been formulated to relieve trading centers of this burden.”²⁵ In adopting these exceptions to Rule 611, the Commission contemplated the existence of very short unintentional delays of a magnitude up to one second that would not affect the protected status of an “immediate” automated quotation. Since then, the market and the technology have evolved.

B. The Commission’s Updated Interpretation of Automated Quotation

The Commission proposed to interpret “immediate” when determining whether a trading center maintains an “automated quotation” for purposes of Rule 611 “to include response time delays at trading centers that are *de minimis*, whether intentional or not.”²⁶ The Commission further

second standard in Rule 611(b)(8)). One second is 1,000,000 microseconds.

²² 17 CFR 242.611(b)(1).

²³ *See* Regulation NMS Adopting Release, *supra* note 1, at 37519. In other words, the Commission viewed the phrase “fastest response possible” as consistent with an unintentional delay of less than one second whereby participants could consider an automated trading center experiencing a delay beyond that limit to no longer be “immediately” accessible.

²⁴ *See* 17 CFR 242.611(b)(8).

²⁵ Regulation NMS Adopting Release, *supra* note 1, at 37523.

²⁶ Securities Exchange Act Release No. 77407 (March 18, 2016), 81 FR 15660, 15661 (March 24, 2016) (S7-03-16) (“Notice of Proposed Interpretation”). Because IEX’s POP/coil delay is designed purposefully and intentionally to delay access to its matching engine, and consequently

stated its preliminary belief “that, in the current market, delays of less than a millisecond in quotation response times may be at a *de minimis* level that would not impair a market participant’s ability to access a quote, consistent with the goals of Rule 611 and because such delays are within the geographic and technological latencies experienced by market participants today.”²⁷ As discussed below, the Commission received a number of comments on its proposed interpretation and, after considering those comments, has determined to issue a revised interpretation from that which it originally proposed, as detailed further below.

II. Comments Received and Commission Discussion

The Commission received 24 comments²⁸ on its proposed

delays access to IEX’s displayed quotation (*See* Letter from Sophia Lee, IEX, to Brent J. Fields, Secretary, Commission, dated November 13, 2015 (“IEX First Form 1 Letter”) at 4 (comment letter on File No. 10-222)), IEX would not be an automated market under the interpretation of “immediate” in the Regulation NMS Adopting Release as “[t]he term ‘immediate’ precludes any coding of automated systems or other type of intentional device that would delay the action taken with respect to a quotation.” Regulation NMS Adopting Release, *supra* note 1, at 37534.

²⁷ Notice of Proposed Interpretation, *supra* note 26, at 15665.

²⁸ *See* Letters (“Interp Letter(s)”) from Rajiv Sethi to Brent J. Fields, Secretary, Commission, dated March 21, 2016; Stacius Sakato to Brent J. Fields, Secretary, Commission, dated March 28, 2016; David Lauer, Healthy Markets Association, to Brent J. Fields, Secretary, Commission, dated April 1, 2016; Hazel Henderson, Ethical Markets Media, to Brent J. Fields, Secretary, Commission, dated April 1, 2016; R.T. Leuchtkafer to Brent J. Fields, Secretary, Commission, dated April 8, 2016; Sal Arnuk and Joe Saluzzi, Themis Trading, to Brent J. Fields, Secretary, Commission, dated April 12, 2016; R. Glenn Hubbard, John L. Thornton, and Hal S. Scott, Committee on Capital Markets Regulation, to Brent J. Fields, Secretary, Commission, dated April 14, 2016; Mary Ann Burns, FIA Principal Traders Group, to Brent J. Fields, Secretary, Commission, dated April 14, 2016; William J. Stephenson, Franklin Templeton Investments, to Brent J. Fields, Secretary, Commission, dated April 14, 2016; John Nagel, Citadel, to Brent J. Fields, Secretary, Commission, dated April 14, 2016; Eric Budish to Brent J. Fields, Secretary, Commission, dated April 14, 2016; Bryan Thompson, British Columbia Investment Management Corporation, to Brent J. Fields, Secretary, Commission, dated April 14, 2016; Adam Nunes, Hudson River Trading (“HRT”), to Brent J. Fields, Secretary, Commission, dated April 14, 2016; William R. Harts, Modern Markets Initiative, to Brent J. Fields, Secretary, Commission, dated April 14, 2016; Joan C. Conley, Nasdaq, to Brent J. Fields, Secretary, Commission, dated April 14, 2016; D. Keith Ross, PDQ Enterprises, to Brent J. Fields, Secretary, Commission, dated April 15, 2016; David Weisberger, Markit, to Brent J. Fields, Secretary, Commission, dated April 18, 2016; Elizabeth K. King, NYSE, to Brent J. Fields, Secretary, Commission, dated April 18, 2016; Kevin J. Weldon to Brent J. Fields, Secretary, Commission, dated

Continued

interpretation.²⁹ Commenters raised a number of issues, including whether intentional sub-millisecond delays are in fact *de minimis* or would materially complicate market structure, as well as requests to clarify the scope and details of the interpretation.

A. *De minimis* for Purposes of Rule 611

Several commenters questioned whether *de minimis* intentional delays were permissible and whether delays of less than a millisecond could be considered *de minimis* in the current market. One commenter asserted that any intentional delay, even a *de minimis* one, “is flatly inconsistent with the plain meaning of ‘immediate[.],’”³⁰ referring to the dictionary definition of that term as “[o]ccurring without delay or ‘instant.’”³¹ Another commenter asserted that “[o]ne millisecond is not *de minimis* in any context except from the perspective of a human trader” and noted that a millisecond “is over 10 times longer than the response time of most exchanges today.”³² The commenter believed that sub-millisecond delays would “impair a market participant’s ability to access a quote.”³³ Another commenter argued

April 20, 2016; Sophia Lee, IEX, to Brent J. Fields, Secretary, Commission, dated April 25, 2016; Abraham Kohan, AK Financial Engineering Consultants, to Brent J. Fields, Secretary, Commission, dated April 25, 2016; Theodore R. Lazo, SIFMA, to Brent J. Fields, Secretary, Commission, dated May 2, 2016; The Honorable Randy Hultgren to Mary Jo White, Commission, dated May 2, 2016; Amir C. Tayrani, Gibson, Dunn & Crutcher LLP to Brent J. Fields, Secretary, Commission, dated May 19, 2016.

²⁹ As discussed and summarized in the Commission’s notice of its proposed interpretation, the Commission also received comments on the issue addressed by this interpretation in response to the initial notice of IEX’s Form 1. See Notice of Proposed Interpretation, *supra* note 26, at 15660, 15663–64. Those comments are also discussed in the Commission’s order approving IEX’s Form 1 application for exchange registration, which the Commission is separately issuing today. See IEX Form 1 Approval Order, *supra* note 4.

³⁰ Gibson Dunn Interp Letter at 3.

³¹ Gibson Dunn Interp Letter at 2 (citing to Black’s Law Dictionary and Webster’s Third New International Dictionary).

³² HRT Interp Letter at 2. The commenter further noted that one millisecond is “approximately three times the time via fiber between the furthest New Jersey data centers and approximately 1/6th the time to Chicago via fiber from the New Jersey datacenters.” *Id.* at 2–3.

³³ HRT Interp Letter at 2. This commenter also cited to the Commission’s MIDAS data from the fourth quarter of 2015, which showed that over 13% of displayed orders in large stocks are cancelled within one millisecond and over 9% of displayed orders in large stocks are executed within one millisecond, and concluded that “[g]iven that over 20% of orders are either executed or canceled during the first millisecond they were displayed, it seems likely that a one millisecond delay would have a material impact on a participant’s ability to access the quotations.” See *id.* The commenter qualified its observation by noting that these figures

that a millisecond is “excessively long when compared to computer response times.”³⁴ One commenter believed that a sub-millisecond standard “will become obsolete at faster and faster rates” as communications technology evolves.³⁵

Other commenters expressed concern that intentional access delays, even *de minimis* ones, could add unnecessary complexity to the markets. In particular, the commenters stressed that such delays could cause orders to be routed to protected quotes that are no longer available. For example, one commenter expressed concern that the proposed interpretation could turn the national market system “into a hall of mirrors where it’s impossible to know which prices are real and which are latent reflections.”³⁶ The commenter opined that intentional access delays would

are relevant “[t]o the extent that a market with similar order cancellation patterns implemented a one millisecond delay.” See *id.* The commenter also recommended that an exchange that imposes an intentional delay “allow market participants to bypass the delay when attempting to access ‘protected quotations.’” *Id.* at 1–2. See also Citadel Interp Letter at 4 (“A time interval in which approximately 10% of executions in many of the most widely traded stocks typically occur is manifestly *not de minimis*.”); NYSE Interp Letter at 7. The Commission notes that it is not clear whether an exchange with an access delay that does not offer features (like co-location, post-only orders, or maker-taker fees) that typically attract latency-sensitive traders, who may be more likely to cancel their orders within one millisecond of placing them, would experience those cancellation rates. Further, the Commission notes that Rule 611 focuses on inter-market order protection, which applies only when market participants access protected quotations at geographically dispersed trading centers that are already subject to varying processing delays, some of which may be a millisecond or more. A one millisecond intentional access delay is well within the current geographic and technological latencies already experienced by market participants when routing orders between trading centers.

³⁴ FIA PTG Interp Letter at 3. The commenter further noted that “[f]or comparison, modern exchange matching engines process orders in considerably less than 1/20 of that time, and geographic latencies between the major exchange data centers in New Jersey are generally less than 1/4 of that time.” *Id.* See also Nasdaq Interp Letter at 6 (noting that the throughput time of Nasdaq’s system is 40 microseconds); Kohen Interp Letter at 1 (noting that the Bombay Stock Exchange processes a transaction in 6 microseconds).

³⁵ See Nasdaq Interp Letter at 3. See also HRT Interp Letter at 3 (noting that “a one millisecond time standard . . . is already obsolete”); FIA PTG Interp Letter at 6 (“One millisecond is slow by today’s computer standards, and will be even slower (relatively speaking) in the future.”). Some commenters criticized the proposed interpretation as lacking empirical support for a sub-millisecond threshold or consideration of alternative delays. See Nasdaq Interp Letter at 4; Citadel Interp Letter at 3; Budish Interp Letter at 2. As discussed above, the Commission notes that the interpretation uses a *de minimis* standard, and not a specific time frame demarcating permissible versus impermissible access delays.

³⁶ FIA PTG Interp Letter at 2.

“harm market transparency and degrade the value of the NBBO” and “lead directly to lower fill rates” when orders cannot be filled because the exchange with an access delay displays a stale better-priced quote that no longer exists but has yet to communicate that information.³⁷ Another commenter argued that the interpretation could make market structure “considerably more complex” and lead to “ghost quotes” that could “cloud price discovery and corrode execution quality.”³⁸ The commenter further noted that “an artificial delay in an exchange quote anywhere affects the markets everywhere” and expressed concern that the proposed interpretation could negatively impact otherwise efficient and accessible markets.³⁹ One commenter expressed concern that intentional delays might “open the floodgates to a new wave of complex order types” with delays ranging from 1 to 1,000 microseconds.⁴⁰ Other commenters, however, opined that intentional access delays would not add complexity to the markets and would fit within current latencies experienced by trading centers. For example, one commenter asserted that a 350 microsecond delay is “not much more than the normal latency that all trading platforms impose,” and that an exchange could achieve the same delay by “locat[ing] its primary data center 65 or more miles away from the other exchange data centers.”⁴¹

In response to a comment that the dictionary definition of the term “immediate[.]” precludes *any* delay in accessing quotations, the Commission notes that quotations cannot be accessed

³⁷ FIA PTG Interp Letter at 5. The commenter argued that this might result in the appearance of more locked and crossed markets, which may interfere with market stability during periods of high volatility. See *id.*

³⁸ PDQ Interp Letter at 1.

³⁹ *Id.* at 2.

⁴⁰ Nasdaq Interp Letter at 3–4; Gibson Dunn Interp Letter at 7.

⁴¹ Letter from James J. Angel to Securities and Exchange Commission, dated December 5, 2015, at 3 (comment letter on IEX Form 1, File No. 10–222). See also Letter from Larry Tabb, TABB Group, to Brent J. Fields, Secretary, Commission, dated November 23, 2015, at 1 (comment letter on IEX Form 1, File No. 10–222) (arguing that IEX’s 350 microsecond delay is not “particularly problematic, as the time gap is minimal, and (even including the speed bump) IEX matches orders faster than a number of other markets”); Letter from Charles M. Jones to Brent Fields, Secretary, Commission, dated March 2, 2016, at 2 (comment letter on IEX Form 1, File No. 10–222) (noting that “from an economic point of view the 350-microsecond delay [proposed by IEX] per se should not be a particular cause for concern, as it is well within the bounds of the existing, geographically dispersed National Market System, and does not seem likely to contribute substantially to a phantom liquidity problem”).

instantaneously.⁴² As the Commission repeatedly acknowledged when adopting Regulation NMS, even “immediately” accessible protected quotations in the context of Rules 600 and 611 are necessarily subject to some delay.⁴³ Specifically, as noted above, the Regulation NMS Adopting Release discussed these delays and, although the Commission declined to set a specific time standard, it contemplated the existence of very short unintentional delays of a magnitude up to one second in the exceptions to Rule 611.

The Commission notes that, when it adopted Regulation NMS in 2005, processing times were longer than they are now.⁴⁴ Today, low latency technology permits trading decisions to be made in microseconds, and certain market participants use the fastest gateways and purchase co-location to compete to access quotations at those speeds.⁴⁵ As discussed further below, however, even the fastest market participants today must access protected quotations on trading centers where there are delays of several milliseconds as a result of geography alone. In addition, trading centers today are attempting to address concerns with the fastest trading strategies by creating very small delays in accessing their

quotations.⁴⁶ The Commission does not agree that such efforts are incompatible with the Order Protection Rule. In the context of Regulation NMS, the term “immediate” does not preclude all intentional delays regardless of their duration, and such preclusion is not necessary to achieve the objectives of Rule 611. As long as any intentional delay is *de minimis*—*i.e.*, does not impair fair and efficient access to an exchange’s protected quotations—it is consistent with both the text and purpose of Rule 611.

In response to commenters that argued that an intentional *de minimis* delay would harm market transparency, degrade the NBBO, or cloud price discovery, the Commission notes, as discussed further below, that Rule 600(b)(3)(v) requires trading centers to immediately update their displayed quotations to reflect material changes. Market participants today already necessarily experience very short delays in receiving updates to displayed quotations, as a result of geographic and technological latencies, similar to those experienced when accessing protected quotations. The Commission does not believe the introduction of intentional delays of even smaller magnitude will impair fair and efficient access to protected quotations.

In response to commenters’ concern that an intentional delay is not *de minimis* or could add complexity to the market, the Commission notes that its interpretation does not address whether delays are *de minimis* in all trading contexts, but rather only whether they impair fair and efficient access to an exchange’s quotations when a market participant routes an order to comply with Rule 611.

Systems processing and transit times, whether at the exchange, the market participant sending the order, or its agent, all create latencies in accessing protected quotations.⁴⁷ Even the most technologically advanced market participants today encounter delays in accessing protected quotations of other “away” automated trading centers that either are transitory (*e.g.*, as a result of message queuing) or permanent (*e.g.*, as a result of physical distance). Furthermore, as noted above, any market participant co-located with the major exchanges’ data centers in northern New Jersey necessarily encounters delays of 3–4 milliseconds—due to geography alone—in accessing

the protected quotations of securities traded on the Chicago Stock Exchange’s matching engine in Chicago.⁴⁸ No commenter asserted that the periodic message queuing or minor systems-processing delays encountered at exchanges with protected quotations, or the time it takes to access the protected quotes of the Chicago Stock Exchange’s Chicago facility, would, for example, materially undermine market quality or price transparency, or the efficiency of order routing or trading strategies.⁴⁹

The Commission acknowledges that interpreting “immediate” to include an intentional *de minimis* access delay, because it would be additive, may increase the overall latency in accessing a particular protected quotation, albeit by a very small amount. Such delays may be a detectable difference for the most latency-sensitive market participants and could marginally impact the efficiency of some of their quoting and trading strategies, even if such intervals likely are immaterial to investors with less advanced trading technology or a longer-term investing horizon. But the Commission believes that just as the geographic and technological delays experienced today do not impair fair and efficient access to an exchange’s quotations or otherwise frustrate the objectives of Rule 611, the addition of a *de minimis* intentional access delay is consistent with Rule 600(b)(3)’s “immedia[cy]” requirement.⁵⁰

⁴⁸ Similarly, they would encounter delays in reaching other “away” exchanges located in other data centers. *See, e.g.*, Letter from David Lauer, Healthy Markets Association, to Brent J. Fields, Secretary, Commission, dated November 6, 2015, at 4 (comment letter on IEX Form 1, File No. 10–222) (noting that “[t]he NBBO already includes quotes with varied degrees of time lag” and that the length of IEX’s coiled cable “is far less than the distance between NY and Chicago, and is remarkably similar to the distance between Carteret and Mahwah (36 miles)”); Letter from Sophia Lee, IEX, to Brent J. Fields, Secretary, Commission, dated November 23, 2016, at 4 and 7 (comment letter on IEX Form 1, File No. 10–222) (referring to data from certain subscribers to IEX’s ATS that, according to IEX, indicate that those subscribers’ average latency when trading on IEX is comparable to that when trading on certain other exchanges, “is an order of magnitude less than that of the Chicago Stock Exchange,” and “is on average less than the round-trip latency of the NYSE as well”).

⁴⁹ From the perspective of a market participant based in New Jersey, classifying a New Jersey market with an intentional sub-millisecond delay as “manual” while classifying a Chicago market with geographic delay measured in multiple milliseconds as “automated” would be inequitable and would not further the goals of Regulation NMS.

⁵⁰ One commenter argued that there is “no evidence of a need for a *de minimis* exception or that planned delays will benefit investors in any meaningful way.” Gibson Dunn Interp Letter at 7. *See also* Nasdaq Interp Letter at 5. As discussed above, however, the Commission believes that its updated interpretation is warranted in light of

⁴² *See supra* note 31 (citing to the Gibson Dunn Interp Letter).

⁴³ For example, the Rule 611(b)(1) exception refers to a “material” delay, which the Commission interpreted as one second or more. *See* Regulation NMS Adopting Release, *supra* note 1, at 37519. In addition, the comment letters on Regulation NMS expressed a multitude of views on the appropriate standard for assessing the accessibility of a protected quotation. *See also supra* text accompanying note 17 (noting that commenters on Regulation NMS who advocated for setting a specific time standard for automated quotations recommended a range of times from one second down to 250 milliseconds).

⁴⁴ *See supra* text accompanying note 17 (noting that commenters on Regulation NMS who advocated for setting a specific time standard for automated quotations recommended a range of times from one second down to 250 milliseconds).

⁴⁵ Exchanges currently have delays within their systems, including access gateways of varying speeds as well as within their co-location infrastructure. For example, some exchanges intentionally employ a “delay coil” in their co-location facilities or offer different access gateways of varying speeds where one is not as “fast as technologically feasible” as the other. *See* IEX First Form 1 Letter at 3 (comment letter on File No. 10–222) (referring to varying connectivity options offered by exchanges from the NYSE, Nasdaq, and BATS groups, and citing the CEO of Nasdaq referring to the intentional “delay coil” that Nasdaq uses inside its co-location infrastructure). *Compare* Gibson Dunn Interp Letter at 3 (writing on behalf of Nasdaq) (stating “the term ‘immediate[.]’ in Rule 600(b)(3) unambiguously forecloses intentional, planned delay” and referring to “the Commission’s own understanding that the term [immediately] requires response times that are as fast as technologically feasible”).

⁴⁶ *See, e.g., supra* note 45 (discussing intentional delays imposed in the exchange co-location context).

⁴⁷ *See supra* note 34 (discussing comments on exchange processing times).

Further, the Commission notes that its interpretation uses a *de minimis* standard specifically so that it may evolve with technological and market developments. As it did when it established the “immediate” standard, the Commission believes it remains appropriate to avoid “specifying a specific time standard that may become obsolete as systems improve over time.”⁵¹ As explained further below, the Commission’s revised interpretation provides that the term “immediate” precludes any coding of automated systems or other type of intentional device that would delay the action taken with respect to a quotation unless such delay is *de minimis* in that it would not impair a market participant’s ability to fairly and efficiently access a quote, consistent with the goals of Rule 611.

B. Operation of Access Delays

Several commenters that expressed general concerns with an intentional access delay, even a *de minimis* one, expressed a particular concern with those that would be “selectively” applied (e.g., intentional delays that are applied to members but not to the exchange itself).⁵² In addition, several commenters asserted that the Commission’s proposed interpretation was overbroad based on their belief that it would “permit all sub-millisecond delays, regardless of how those delays operate, the reasoning and incentives behind the delays, or the impacts on the markets and investors.”⁵³ These commenters instead urged the Commission to “evaluate each proposed delay, regardless of its duration, and specifically determine that it is designed and applied in a manner that is consistent with the purposes of the Exchange Act.”⁵⁴ Another commenter

technological and market developments and is consistent with the purposes of Rule 611. *See also* comments submitted on IEX’s exchange registration (File No. 10–222), a number of which supported the intentional delay proposed by IEX.

⁵¹ Regulation NMS Adopting Release, *supra* note 1, at 37519.

⁵² *See, e.g.*, FIA PTG Interp Letter at 6; MMI Interp Letter at 1; Weldon Interp Letter at 1–2.; NYSE Interp Letter at 4; Citadel Interp Letter at 8; Markit Interp Letter at 2–3.

⁵³ Healthy Markets Interp Letter at 2. *See also* Ethical Markets Interp Letter at 2–3, Franklin Templeton Interp Letter, British Columbia Investment Management Corporation Interp Letter (each repeating the recommendation of the Healthy Markets Interp Letter); and Themis Interp Letter at 2.

⁵⁴ Healthy Markets Interp Letter at 3. *See also* Ethical Markets Interp Letter at 2–3, Franklin Templeton Interp Letter, and British Columbia Investment Management Corporation Interp Letter (each repeating the recommendation of the Healthy Markets Interp Letter). The commenters further urged that the interpretation be conditioned on: (1) Delays always being less than one millisecond; (2)

urged the Commission to “take into account not just the length of the delay, but also its *purpose*.”⁵⁵

The Commission notes that this interpretation does not address whether any particular access delay is unfairly discriminatory, an inappropriate or unnecessary burden on competition, or otherwise inconsistent with the Act. Rather, it clarifies that if an intentional access delay is *de minimis*, then it is “immediate” for purposes of Rules 600(b)(3) and 611. While the Commission’s interpretation is narrowly focused on the meaning and application of the word “immediate[.]” in Rule 600(b)(3) in light of technological and market developments since the adoption of Regulation NMS in 2005, the evaluation of any proposed access delay would involve additional considerations.

Specifically, this interpretation does not obviate the requirement of individualized review of proposed access delays, including *de minimis* delays, for consistency with the Exchange Act and Regulation NMS. Any exchange seeking to impose an access delay must reflect that in its rules, which are required to be filed with the Commission as part of the exchange application or as an individual proposed rule change. This interpretation does not alter the requirement that any exchange access delay must be fully described in a written rule of the exchange, which in

delays being applied equally to all participants and across all order types; (3) data sent to the Securities Information Processors should not be delayed; and (4) the purpose of each delay is expressly stated and intended to benefit long-term investors. *See* Healthy Markets Interp Letter at 4. *See also* Ethical Markets Interp Letter at 2–3, Franklin Templeton Interp Letter, and British Columbia Investment Management Corporation Interp Letter (each repeating the recommendation of the Healthy Markets Interp Letter). Another commenter raised a similar concern, and urged the Commission to review each proposed access delay separately and “ensure that any such delays are equally applied to all market participants.” *See* Committee on Capital Markets Regulation Interp Letter at 2. One commenter urged the Commission to consider “one single measuring stick: Will the proposed delay serve long term investors?” Themis Interp Letter at 2.

⁵⁵ Sethi Interp Letter at 2 (emphasis in original). Another commenter suggested an alternative definition of “immediate” that is not “elapsed-time dependent” but instead would consider an exchange’s response to an incoming order to be “immediate” if the transition of the displayed quote from point A (before the order is received) to B (after the order is received) can be “fully attributed to the execution of [the order] in a determinative way.” Sakato Interp Letter at 1–2. The Commission believes that at this time an order-by-order determination of whether a quotation is “protected” could introduce unworkable complexity into order routing and could frustrate the incentive provided to market participants to post the resting displayed limit orders that underpin much of the price discovery in the market.

turn must be filed with the Commission and published for notice and comment, nor does it obviate the need for a proposed rule change that would impose an access delay otherwise to comply with the Act and the regulations thereunder applicable to the exchange.⁵⁶ Accordingly, the commenters’ concerns and recommended conditions are addressed by the existing requirements and process through which exchanges publicly propose their rule changes under the Act, and each proposed access delay would be scrutinized on an individual basis through that process.⁵⁷ Any proposed application of an access delay would therefore be subject to notice, comment, and the Commission’s separate evaluation of the proposed rule change.⁵⁸

⁵⁶ Only registered exchanges and associations can have “automated quotations” that are “protected quotations.” *See* 17 CFR 242.611(b)(57). Such entities are required by Section 19 of the Act to file all rules and proposed changes to their rules with the Commission so that the Commission can review and publish them for public notice and comment. *See* 15 U.S.C. 78s(b). Further, no proposed rule change can take effect unless approved by the Commission or otherwise permitted to become effective under the Act and rules thereunder. *See id.* Similarly, an applicant seeking to register as an exchange is required to file all proposed rules with the Commission on Form 1, which the Commission publishes for notice and comment. Once filed, the Commission evaluates each proposed rule change for consistency with the Act and the rules thereunder. An access delay would constitute a “rule” of an exchange because it would be a “stated policy, practice, or interpretation” that concerns a “material aspect” of the operation of an exchange, and thus any new or amended delay would require a filing. *See* 15 U.S.C. 78c(a)(27) (defining “rules of an exchange”); 17 CFR 240.19b–4(a)(6) (defining “stated policy, practice, or interpretation”); 17 CFR 240.19b–4 (noting that a stated policy, practice, or interpretation is deemed to be a proposed change unless it is fairly and reasonably implied by an existing rule or is concerned solely with the administration of the exchange). As required by Section 19(b) of the Act, Rule 19b–4, and Form 19b–4, such exchange would be required to, among other things, detail the purpose of the proposed delay and analyze how the delay is consistent with the Act, including the Section 6 standards governing, among other things, unfair discrimination, protection of investors and the public interest, inappropriate burdens on competition, and just and equitable principles of trade. *See* Section 19(b), Rule 19b–4 and Form 19b–4 (on which exchanges file their proposed rule changes).

⁵⁷ *See* Citadel Interp Letter at 6–7 (acknowledging that new access delays would need to be filed with the Commission before they can be implemented, but expressing concern that it would “be exceedingly difficult for the staff to recognize all of the implications and impacts of each delay mechanism”).

⁵⁸ In the case of IEX, the Commission’s separate order approving IEX’s Form 1 addresses the POP/coil delay’s consistency with the Act. *See also* SIFMA Interp Letter at 3 (recommending that “any intentional delay should be predictable and universally applied to all market participants in a non-discriminatory manner”).

C. Other Comments

A few commenters asked the Commission to provide more detail on the application of the proposed interpretation.⁵⁹ For example, one commenter asked whether it applies to both inbound and outbound delays and whether it should be based on the exchange's fastest or slowest means of connecting.⁶⁰ Other commenters asked how much variance will be permitted and whether unintentional delays also should be covered by the interpretation.⁶¹

The interpretation of "immediate" applies to the term as used in Rule 600(b)(3), so that it applies to any intentional delay imposed by an exchange through any means provided by the exchange to access its quotations. Further, as modified here from the proposed interpretation, the interpretation applies only to intentional delays, as unintentional delays are addressed by the existing exception contained in Rule 611(b)(1).⁶² Finally, in response to the commenters asking if both inbound and outbound delays should be taken into account when measuring the length of an intentional delay, the Commission notes that the intentional delay, as it pertains to the Order Protection Rule, is measured as a cumulative delay experienced by a non-routable order—in other words, the intentional delay

applied on an order message sent into an exchange system through each of the events specified in the definition of "automated quotation" in Rule 600(b)(3). Specifically, any intentional delay imposed by the exchange in (1) executing an immediate-or-cancel order against its displayed quotation up to its full size, (2) cancelling any unexecuted portion of such order, or (3) transmitting a response to the sender of such order, should be added together in assessing compliance with Rule 611.⁶³

One commenter recommended that the Commission engage in notice and comment rulemaking to effect "a change of this magnitude," which it argued contradicts the "plain meaning of the term 'immediate.'" ⁶⁴ The commenter argued that an interpretation is only appropriate to "provide guidance on how a new service or product not contemplated at the time a rule was adopted should be treated under existing rules." ⁶⁵ As discussed above, however, the Commission does not believe the dictionary definition of the term "immediate[]" forecloses *de minimis* intentional delays (*i.e.*, intentional delays so short that they do not impair fair and efficient access to an exchange's quotations). The Commission is updating its prior interpretation in light of technological and market developments since the adoption of Regulation NMS in 2005 to accommodate very short intentional delays that do not impair fair and

efficient access to protected quotations. Although the Commission did afford an opportunity for notice and comment by publishing a draft interpretation for comment, and did take the comments it received into consideration, the Commission was not required to undertake notice and comment rulemaking when updating its interpretation of its own regulation.

Other commenters focused on what they viewed as a potential opportunity for manipulative activity that could result from an access delay to a market displaying a protected quotation. One commenter opined that an access delay would make it easier to manipulate markets "by taking advantage of stale and inaccessible quotations displayed during the duration of any access delays," and that such manipulative behavior "could be particularly powerful in relatively illiquid stocks." ⁶⁶ As an example, the commenter posited that a market participant could "safely manipulate a closing auction by sending displayed orders to an exchange with an intentional 999 microsecond delay and timing the submission of those orders for display 998 microseconds or less before the close" because "no other market participant could reach them in time." ⁶⁷ Another commenter argued that access delays could lead to "stale prices [that] are guaranteed to be displayed for a specific period of time up to 1 millisecond," which would cause pegged orders on other exchanges to "be traded against at known stale prices" when such pegged order is pegged to the stale price on the exchange with the access delay.⁶⁸ The commenter argued that this could lead to "a potentially new mechanism for spoofing . . . with the objective of affecting pegged orders on other exchanges." ⁶⁹

The Commission notes that the scenarios discussed by commenters are not related to the issue addressed by this interpretation—whether an intentional delay that is so short as not

⁵⁹ See, e.g., HRT Interp Letter at 3; Nasdaq Interp Letter at 3.

⁶⁰ See HRT Interp Letter at 3. See also Citadel Interp Letter at 9.

⁶¹ See, e.g., Citadel Interp Letter at 9–10. One commenter asked whether there would be a process to remove protected quotation status from an exchange that has an intentional delay that equals or exceeds one millisecond. See *id.* at 10. If any market participant experiences issues in accessing that exchange's quotation, it may consider the applicability of the exceptions specified in Rule 611(b), including the "material delay" condition of Rule 611(b)(1). See 17 CFR 242.611(b)(1). The Commission notes that the Rule 611(b)(1) "self-help" exception refers to a "material delay," and in the Regulation NMS Adopting Release, the Commission provided an interpretation of the phrase "material delay" as one where a market was "repeatedly failing to respond within one second after receipt of an order." See Regulation NMS Adopting Release, *supra* note 1, at 37519.

⁶² See 17 CFR 242.611(b)(1). See also *supra* note 61 (discussing the self-help exception). Accordingly, the Commission is not including as part of the interpretation the phrase "whether intentional or not" to focus its interpretation on access delays that are intentional. While the Commission acknowledges that the one-second (*i.e.*, 1,000,000 microseconds) interpretation included in the Regulation NMS Adopting Release for this exception, as well as the "one second" exception in Rule 600(b)(8), may warrant reconsideration in the future, that would be a separate analysis and the Commission is not addressing those exceptions in this interpretation. See also SIFMA Interp Letter at 4 (requesting that the Commission clarify that it is not changing the self-help threshold).

⁶³ See 17 CFR 242.600(b)(3)(ii), (iii), and (iv), respectively. See also Regulation NMS Adopting Release, *supra* note 1, at 37534. In the case of IEX, the POP/coil delay imposes a 350 microsecond delay inbound to the matching engine for non-routable orders (but no additional delay when cancelling the unexecuted portion of the order) and a 350 microsecond delay outbound on the confirmation back to the order sender, for a cumulative 700 microsecond delay. In addition, the Commission notes that IEX permits incoming orders to be marked as immediate-or-cancel, as is required by Rule 600(b)(3). See 17 CFR 242.600(b)(3)(i). One commenter argued that a delay in outbound data could cause the data reported to "not accurately reflect the state of a quotation." See Gibson Dunn Interp Letter at 7. This commenter also asserted that intentional delays in communicating reports of transactions would decrease their "informational value." See Gibson Dunn Interp Letter at 7; Nasdaq Interp Letter at 2. The Commission notes that the geographic and technological latencies that market participants experience when routing to access a quotation also affect data disseminated from the trading center to the market participant. In other words, market participants already experience latencies when receiving quotation updates and transaction information. At least with respect to delays well within those existing latencies, the Commission does not believe that a market participant's general experience in receiving this information is likely to be altered depending on whether the delay is intentional or unintentional.

⁶⁴ Citadel Interp Letter at 1. See also Hultgren Interp Letter at 1; Gibson Dunn Interp Letter at 1–2.

⁶⁵ Citadel Interp Letter at 2–3.

⁶⁶ *Id.* at 6.

⁶⁷ *Id.*

⁶⁸ NYSE Interp Letter at 8. See also Citadel Interp Letter at 8 (arguing that "every time market prices tick up or down, the NBBO would be incorrect for at least the duration of any intentional delays" which would lead some pegged orders to track at "inaccurate prices").

⁶⁹ NYSE Interp Letter at 8. See also HRT Interp Letter at 3 (citing to a comment from Instinet on IEX's Form 1 that discussed the potential for "spoofing" by entering an order, waiting for 700 microseconds, and cancelling the order without the risk of another market participant seeing or responding to it, but which could provide a false or misleading appearance that could affect the trading of other participants); FIA PTG Interp Letter at 7 (also citing to the Instinet letter).

to frustrate the goals of Rule 611 by interfering with fair and efficient access to an exchange's quotations is consistent with Rule 600(b)(3)'s "immedia[cy]" requirement.⁷⁰ If a delay is *de minimis*, then whether it is unintentional or intentional in nature is not expected to alter the potential for manipulative activity or make it harder to detect and prosecute. One commenter noted that it is important "to contemplate and address the potential for abuse"⁷¹ when an access delay is proposed and approved. The Commission agrees that such scrutiny—both by the exchange proposing an access delay, and by the Commission when considering whether to approve a proposed access delay rule—would be important. The Commission notes that, pursuant to Section 19(b) and Rule 19b-4, the proposing exchange would be required to consider and address in its rule change filing the potential for abuse of any proposed access delay, which would then be subject to notice, comment, and Commission review. Further, even after the rule change became effective, the Commission believes it would be incumbent on the exchange to remain vigilant in surveilling for abuses and violative conduct of its access delay rule, and consider amending its access delay if necessary, among other considerations, for the protection of investors and the public interest.⁷²

III. Commission's Interpretation

In response to technological and market developments since the adoption of Regulation NMS,⁷³ the Commission

believes that it is appropriate to provide an updated interpretation of the meaning of the term "immediate" in Rule 600(b)(3).

Solely in the context of determining whether a trading center maintains an "automated quotation" for purposes of Rule 611 of Regulation NMS, the Commission does not interpret the term "immediate" used in Rule 600(b)(3) by itself to prohibit a trading center from implementing an intentional access delay that is *de minimis*—i.e., a delay so short as to not frustrate the purposes of Rule 611 by impairing fair and efficient access to an exchange's quotations. Accordingly, the Commission's revised interpretation provides that the term "immediate" precludes any coding of automated systems or other type of intentional device that would delay the action taken with respect to a quotation unless such delay is *de minimis*.

The Commission's updated interpretation recognizes that a *de minimis* access delay, even if it involves an "intentional device" that delays access to an exchange's quotation, is compatible with the exchange having an "automated quotation" under Rule 600(b)(3) and thus a "protected quotation" under Rule 611.⁷⁴ Under this interpretation, Rule 600(b)(3)'s "immedia[cy]" requirement does not necessarily foreclose an automated trading center's use of very small intentional delays to address concerns arising from low latency trading strategies and other market structure issues. For example, intentional access delays that are well within the geographic and technological latencies

experienced by market participants when routing orders are *de minimis* to the extent they would not impair a market participant's ability to access a displayed quotation consistent with the goals of Rule 611.

The interpretation does not change the existing requirement that, prior to being implemented, an intentional delay of any duration must be fully disclosed and codified in a written rule of the exchange that has become effective pursuant to Section 19 of the Act, where the exchange met its burden of articulating how the purpose, operation, and application of the delay is consistent with the Act and the rules and regulations thereunder applicable to the exchange.⁷⁵

In the Notice of Proposed Interpretation, the Commission stated its preliminary belief "that, in the current market, delays of less than a millisecond in quotation response times may be at a *de minimis* level that would not impair a market participant's ability to access a quote, consistent with the goals of Rule 611 and because such delays are within the geographic and technological latencies experienced by market participants today."⁷⁶ As discussed above, the Commission received a number of comments on that specific guidance.

At this time, the Commission is not adopting the proposed guidance under this interpretation that delays of less than one millisecond are *de minimis*. The Commission believes that, in light of the evolving nature of technology and the markets, and the need to assess the impact of intentional access delays on the markets, establishing a bright line *de minimis* threshold is not appropriate at this time. Rather, the Commission

⁷⁰ Nevertheless, the Commission believes that the scenarios discussed by commenters would, as a practical matter, be difficult to implement. For example, in the closing auction scenario, the Commission believes it would be practically difficult to successfully implement a coordinated single-digit microsecond strategy during a broad-based auction because of the precision it would require to ensure order arrival at the final microsecond and not have it trade with a multitude of other interest in the auction. Further, concerns surrounding pegged orders on away markets would affect only the most latency sensitive traders and only apply when the exchange with the access delay is alone at the NBBO, has exhausted all displayed and non-displayed interest at its best price, and is in the process of transitioning to a new price. However, that possibility is not uniquely introduced by an exchange with an access delay, but is currently present in a fragmented market with geographically dispersed venues. For example, the same problem (only exacerbated with considerably more latency) would be present if the Chicago Stock Exchange was alone at the NBBO on a symbol it trades from Chicago.

⁷¹ HRT Interp Letter at 3.

⁷² See 15 U.S.C. 78s(g)(1).

⁷³ A number of factors affect the speed at which a market participant can receive market and quote data, submit orders, obtain an execution, and receive information on trades, including hardware, software, and physical distance. See, e.g., Securities

Exchange Act Release No. 61358 (January 14, 2010), 75 FR 3594, 3610-11 (January 21, 2010) (Concept Release on Equity Market Structure). Recent technological advances have reduced the "latency" that these factors introduce into the order handling process, both in absolute and relative terms, and some market participants and liquidity providers have invested in low-latency systems that take into account the advances in technology. See *id.* at 3606; see also Securities Exchange Act Release No. 76474 (November 18, 2015), 80 FR 80997, 81000 (December 28, 2015) (Regulation of NMS Stock Alternative Trading Systems; Proposed Rule) (stating that "[t]he growth in trading centers and trading activity has been fueled primarily by advances in technology for generating, routing, and executing orders" and that "[t]hese technologies have markedly improved the speed, capacity, and sophistication of the trading mechanisms and processes that are available to market participants").

⁷⁴ An exchange that proposed to provide any member or user (including the exchange's inbound or outbound routing functionality, or the exchange's affiliates) with *exclusive* privileged faster access to its facilities over any other member or user would raise concerns under the Act, including under Section 6(b)(5) and 6(b)(8) of the Act, and would need to address those concerns in a Form 1 exchange registration application or a proposed rule change submitted pursuant to Section 19 of the Act, as applicable.

⁷⁵ As discussed above, any exchange that seeks to impose an intentional access delay must first file a proposed rule change with the Commission, which the Commission would publish for notice and comment, and approve only after finding that it is consistent with the applicable standards set forth in the Act. For example, a proposed access delay that is only imposed on certain market participants or certain types of orders would be scrutinized to determine whether or not the discriminatory application of that delay is unfair. See, e.g., Securities Exchange Act Release No. 77406, 81 FR 15765 (March 24, 2016) (File No. 10-222) (order instituting proceedings on IEX's Form 1) (discussing the potentially unfairly discriminatory application of an access delay to advantage an affiliated outbound routing broker). If the Commission cannot find that a proposed access delay is consistent with the Act, it would disapprove the proposal, rendering moot the issue of whether a quotation with such a delay is protected. Generally, the Commission would be concerned about access delays that were imposed only on certain market participants or intentional access delays that were relieved based upon payment of certain fees.

⁷⁶ Notice of Proposed Interpretation, *supra* note 26, at 15665.

believes that the interpretation is best focused on whether an intentional delay is so short as to not frustrate the purposes of Rule 611 by impairing fair and efficient access to an exchange's quotations. As it makes findings as to whether particular access delays are *de minimis* in the context of individual exchange proposals,⁷⁷ the Commission recognizes that such findings create common standards that must be applied fairly and consistently to all market participants.

The Staff will also conduct a study within two years regarding the effects of

intentional access delays on market quality, including price discovery and report back to the Commission with the results of any recommendations. Based on the results of that study or earlier as it determines, the Commission will reassess whether further action is appropriate.

List of Subjects in 17 CFR Part 241

Securities.

Text of Amendments

For the reasons set out in the preamble, the Commission is amending

Title 17, chapter II, of the Code of Federal Regulations as follows:

PART 241—INTERPRETATIVE RELEASES RELATING TO THE SECURITIES EXCHANGE ACT OF 1934 AND GENERAL RULES AND REGULATIONS THEREUNDER

Part 241 is amended by adding Release No. 34–78102 to the list of interpretative releases as follows:

Subject	Release No.	Date	Federal Register vol. and page
* * * * *			
Interpretation Regarding Automated Quotations Under Regulation NMS.	34–78102	June 17, 2016	121 FR [Insert FR Page Number].

By the Commission.
 Dated: June 17, 2016.
Robert W. Errett,
Deputy Secretary.
 [FR Doc. 2016–14876 Filed 6–22–16; 8:45 am]
BILLING CODE 8011–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

18 CFR Part 35

[Docket No. RM16–1–000; Order No. 827]

Reactive Power Requirements for Non-Synchronous Generation

AGENCY: Federal Energy Regulatory Commission, DOE.

ACTION: Final rule.

SUMMARY: The Federal Energy Regulatory Commission (Commission) is eliminating the exemptions for wind generators from the requirement to provide reactive power by revising the *pro forma* Large Generator Interconnection Agreement (LGIA), Appendix G to the *pro forma* LGIA, and the *pro forma* Small Generator Interconnection Agreement (SGIA). As a result, all newly interconnecting non-synchronous generators will be required to provide reactive power at the high-side of the generator substation as a condition of interconnection as set forth in their LGIA or SGIA as of the effective date of this Final Rule.

DATES: This Final Rule will become effective September 21, 2016.

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⁷⁷ See *supra* note 56 (discussing the proposed rule change process under the Exchange Act). See also IEX Form 1 Approval Order, *supra* note 4.