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COMMODITY FUTURES TRADING COMMISSION

17 CFR Parts 1, 38, 40, and 170

RIN 3038-AD52

Regulation Automated Trading

AGENCY: Commodity Futures Trading Commission.

ACTION: Supplemental notice of proposed rulemaking.

SUMMARY: On December 17, 2015, the Commodity Futures Trading Commission ("CFTC" or "Commission") published in the Federal Register a notice of proposed rulemaking ("NPRM") proposing a series of risk controls, transparency measures, and other safeguards to enhance the safety and soundness of automated trading on all designated contract markets ("DCMs") (collectively, "Regulation Automated Trading" or "Regulation AT"). Through this supplemental notice of proposed rulemaking for Regulation AT ("Supplemental NPRM"), the Commission is proposing to modify certain rules set forth in the NPRM. Any new or amended rules proposed in this Supplemental NPRM reflect only those areas where the Commission believes that additional notice and comment may be appropriate before enacting final rules. Procedurally, this Supplemental NPRM is not a replacement or withdrawal of rules proposed in the NPRM. Unless specifically amended herein, all regulatory text proposed in the NPRM remains under active consideration for adoption as final rules. The Commission welcomes public comment on all aspects of the Supplemental NPRM.

DATES: Comments must be received on or before [**INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER**].

ADDRESSES: You may submit comments, identified by RIN 3038-AD52, by any of the following methods:

- CFTC website: http://comments.cftc.gov. Follow the instructions for submitting comments through the Comments Online process on the website.

- Mail: Send to Christopher Kirkpatrick, Secretary of the Commission, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street, NW, Washington, DC 20581.

- Hand Delivery/Courier: Same as Mail, above.

- Federal eRulemaking Portal: http://www.regulations.gov. Follow the instructions for submitting comments.

Please submit comments by only one method. All comments should be submitted in English or accompanied by an English translation. Comments will be posted as received to http://www.cftc.gov. You should submit only information that you wish to make available publicly. If you wish the Commission to consider information that may be exempt from disclosure under the Freedom of Information Act ("FOIA"), a petition for confidential treatment of the exempt information may be submitted according to the procedures established in 17 CFR 145.9. The Commission reserves the right, but shall have no obligation, to review, prescreen, filter, redact, refuse, or remove any or all of your submission from http://www.cftc.gov that it may deem to be inappropriate for publication, such as obscene language. All submissions that have been so treated that contain comments on the merits of the rulemaking will be retained in the public comment file and will be considered as required under the Administrative Procedure Act and other applicable laws, and may be accessible under FOIA.

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I. Introduction: the NPRM and Supplemental NPRM for Regulation AT

Regulation Automated Trading is a comprehensive Commission effort to reduce risk and increase transparency in algorithmic order origination and electronic trade

execution on all U.S. futures exchanges. The proposed rules, both in the NPRM and the Supplemental NPRM, modernize the Commission's regulatory regime, promote the safety and soundness of trading on all contract markets, and seek to keep pace with evolving technologies. This Supplemental NPRM builds on the Commission's December 2015 NPRM for Regulation AT,[1] and is a continuation of the underlying policies and objectives reflected therein. The Supplemental NPRM responds to persuasive public comments to help ensure appropriate final rules for Regulation AT.[2]

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[1] Regulation Automated Trading, Proposed Rule, 80 FR 78824 (Dec. 17, 2015) (hereinafter "NPRM").

[2] Sections I-III of the NPRM provided a fulsome discussion of the policy considerations, market events, existing best practices, and procedural history that informed the Commission's development of Regulation AT. The Commission explained that "the basic structure of [open-outcry trading] remained constant for decades, and produced a parallel regulatory framework also premised on natural persons and human decision-making speeds." See NPRM at 78825. It contrasted now-obsolete manual processes against the "wide array of electronic systems for the generation, transmission, management, and execution of orders" used today by DCMs and DCM market participants, including high-speed communication networks to confirm transactions, communicate market data, and link markets and market participants. See id.

The Commission provided information indicating that over 95% of all on-exchange futures trading was electronic by 2014, with many exchanges having closed their open-outcry trading pits well before then. It also indicated that by 2014, ATSs were present on at least one side of almost 80% of trading volume in some asset classes. The Commission noted that "[t]he largely complete transition of DCMs to electronic trade matching platforms has occurred alongside an equally important shift in the technologies used by market participants to place and manage orders." These include ATSs, high-speed communication networks, and the use of direct access and colocation services to "minimize latencies between ATS, market data systems, and DCMs' electronic trading platform[s]." See NPRM at 78826.

The Commission explained that "an overarching goal" of Regulation AT is to update its rules in response to the evolution from pit to electronic trading, including by focusing on "algorithmic order origination or routing by market participants, and electronic trade execution by DCMs." It also observed that "[m]arket participants using automated trading include an important population of proprietary traders that, while responsible for significant volume and liquidity in key futures products, are not registered with the Commission." The Commission emphasized that Regulation AT is focused on the "automation of order generation, transmission, and execution, and the risks that may arise from such activity." It identified "appropriate pre-trade and other risk controls" as an important element in "ensur[ing] the integrity of Commission-regulated markets" and fostering market participants' confidence in the transactions being executed. See NPRM at 78827-78828.

The Commission also summarized the broad array of resources that it consulted in preparing the NPRM for Regulation AT, including "industry practices, measures taken by other U.S. and foreign regulators, and best practices or guidance set forth by other informed parties." It noted the "emerging consensus around pre-trade risk controls for automated trading and supervision standards for ATSs." Finally, the Commission emphasized that "Regulation AT attempts to balance flexibility in a rapidly changing technological landscape with the need for a regulatory baseline that provides a robust and sufficiently clear standard for pre-trade risk controls, supervision standards, and other safeguards for automated trading environments." See NPRM at 78828. This Supplemental NPRM continues to build on the policy determinations and regulatory objectives set forth in the NPRM for Regulation AT.

Procedurally, the Supplemental NPRM is a continuation of the NPRM. All rules in the NPRM remain under consideration as originally proposed unless specifically modified in the proposed rule text in this Supplemental NPRM.[3] Accordingly, this Supplemental NPRM begins with an overview of Regulation AT across the NPRM and the Supplemental NPRM (Section I(A)). It continues with a summary of the opportunities for public comment provided by the Commission (Section I(B)), and an overview of the comments received (Section I(C)). Sections II through VII discuss specific proposed rules in the Supplemental NPRM that add to, remove, or otherwise amend the Commission's original proposals in the NPRM. Sections II through VII also provide a summary of the comments and policy considerations that led to the Commission's new or amended proposals. Section VIII provides preamble discussion and seeks comment regarding additional areas where the Commission's final rules for Regulation AT may amend the NPRM. However, such potential amendments are not included as proposed regulatory text in this Supplemental NPRM. The Commission believes that the further amendments under consideration do not impact new parties, create new obligations, or otherwise increase burdens. Section IX includes the Commission's Paperwork Reduction Act, Regulatory Flexibility Act, and Cost-Benefit discussions for the regulatory text proposed herein. Finally, the Commission presents the proposed new or modified regulatory text following the end of the preamble. Any sections or paragraphs marked as "Reserved" are not addressed in this Supplemental NPRM. The provisions proposed for such sections or paragraphs in the NPRM are unchanged from that document and remain under active consideration by the

[3] The Commission's new proposed regulatory text is presented in this document following the end of the preamble.

Commission. (Note, however, that proposed reserved § 1.3(aaaaa) is not the subject of either this Supplemental NPRM or the NPRM. That definitions paragraph is the subject of another pending unrelated Commission rulemaking proposal.) Please note also that the provisions proposed in the NPRM for §§ 38.401 and 40.1(i), and for Appendix B to part 38, are not shown as reserved in this Supplemental NPRM for technical reasons. Nonetheless, the provisions proposed in the NPRM for those two sections and that appendix are unchanged and remain under active consideration by the Commission.

A. Basic Structure of Regulation AT: the NPRM and the Supplemental NPRM

The basic structure of Regulation Automated Trading is set forth in the NPRM, and remains largely intact. However, through this Supplemental NPRM, the Commission is proposing certain changes to Regulation AT to address comments received in response to the NPRM and during a day-long staff roundtable on Regulation AT held in June 2016. This Section I(A) provides an overview of Regulation AT by summarizing several of the principal changes that the Supplemental NPRM proposes to make to the NPRM.

First, Regulation AT would require pre-trade risk controls and other measures for the Algorithmic Trading of AT Person customers in order to promote the continued safety and soundness of Commission-regulated markets. In the NPRM, the Commission proposed placing such risk controls at three levels: the AT Person, the FCM and the DCM. Many commenters asserted that a three-layer structure could be redundant and costly, and some indicated that a two-level structure would be preferable. After careful consideration, the Commission is proposing to move Regulation AT from a three-level risk control structure to a modified two-level structure, with risk controls set at the levels

of (1) the AT Person[4] or its FCM; and (2) the DCM. Under the two-level structure proposed in the Supplemental NPRM, an AT Person would have the option of delegating its pre-trade risk control requirements to an FCM rather than implementing its own controls.

Second, the NPRM proposed requiring risk controls only with respect to the Algorithmic Trading of AT Persons. In contrast, the Supplemental NPRM addresses not only Algorithmic Trading, but also Electronic Trading at the AT Person, FCM, and DCM levels. The Commission's amended proposal is consistent with comments stating that all electronic trading—not just the narrower set of Algorithmic Trading—should pass through pre-trade risk controls.

Third, in the NPRM, the Commission proposed requiring that pre-trade risk controls be set at the level of each AT Person or market participant, or other more granular levels as the AT Person, FCM or DCM determined appropriate. The Supplemental NPRM responds to comments that it may not be efficient or possible for DCMs and FCMs to set controls at the level of individual market participants. Accordingly, in the Supplemental NPRM, the Commission revises the risk control provisions to provide AT Persons, FCMs and DCMs greater flexibility regarding the level at which pre-trade controls must be set.

Fourth, Regulation AT would require the registration of certain market participants who are not already registered with the Commission. Such market participants would be required to register as "floor traders," as defined in the

[4] "AT Person" is defined in proposed § 1.3(xxxx) of the NPRM, and includes existing Commission registrants engaged in "Algorithmic Trading" on a DCM, as well as market participants required to register as floor traders pursuant to proposed § 1.3(x)(3) of the NPRM. Algorithmic Trading is defined in proposed § 1.3(zzzz) of the NPRM. Electronic Trading is defined in Supplemental NPRM in proposed § 1.3(ddddd).

Supplemental NPRM in proposed § 1.3(x)(1)(iii) ("New Floor Traders"), and would also be required to become members of a registered futures association ("RFA"). Together with certain existing registrants, New Floor Traders would be considered AT Persons and be subject to all relevant requirements of Regulation AT. Pursuant to the NPRM, the proposed registration criteria for New Floor Traders[5] were that such persons be engaged in (1) proprietary, (2) Algorithmic Trading (3) through Direct Electronic Access ("DEA") on a DCM. The Supplemental NPRM retains these requirements but also incorporates a volume-based quantitative test for registration as a New Floor Trader. This amendment responds to concerns that the NPRM would have imposed registration and its consequent obligations on too large a population of market participants. The Commission also proposes to apply this same volume-based quantitative test to existing registrants and persons otherwise required to register with the Commission to determine whether they are AT Persons.[6]

The Commission estimates that its proposed volume-based criteria would result in approximately 120 AT Persons, including some of who are already registered with the Commission in some capacity. This stands in contrast to some commenters' estimates that the NPRM could have required thousands of persons to register. While any volume-based metric has limitations, the Commission believes that this is the best way to focus the registration-related obligations on the appropriate class of persons. This approach, coupled with other changes in the Supplemental NPRM regarding the obligations of AT

[5] For purposes of this Supplemental NPRM, registrants under Supplemental proposed § 1.3(x)(1)(iii) are deemed "New Floor Traders."

[6] To be considered AT Persons, existing registrants and persons otherwise required to register with the Commission must be engaged in Algorithmic Trading on our subject to the rules of a DCM. Unlike for New Floor Traders, however, direct electronic access is not a relevant consideration for existing registrants and persons otherwise required to register with the Commission (e.g., FCMs, floor brokers, swap dealers, major swap participants, commodity pool operators, commodity trading advisors, and introducing brokers).

Persons as discussed below, also addresses many of the concerns expressed about the NPRM registration requirement.

Fifth, in the NPRM, the Commission proposed requiring that AT Persons provide the DCMs on which they operate with annual reports containing information on the AT Persons' compliance with requirements concerning risk controls. The NPRM further would have required DCMs to establish a program for effective review and evaluation of the reports. The Commission received comments that the proposed reporting requirements were overly burdensome and would provide little benefit in mitigating the risks of Algorithmic Trading. In the Supplemental NPRM, the Commission proposes replacing the annual compliance report requirement for AT Persons with a streamlined annual certification requirement. The Commission also proposes to retain certain recordkeeping requirements, as well as the requirement that DCMs establish a program for effective periodic review and evaluation of AT Persons' compliance with elements of Regulation AT. Similarly, the NPRM imposed annual reporting requirements on FCMs and required DCMs to review these reports. The Supplemental NPRM also replaces the annual reporting obligations for FCMs with a certification requirement, and also retains the requirement that FCMs maintain certain records. As with AT Persons, the Supplemental NPRM requires DCMs to establish a program for effective periodic review and evaluation of FCMs' compliance with Regulation AT.

Sixth, Regulation AT requires that algorithmic trading source code be preserved and made available to the Commission when necessary.[7] The NPRM required that AT

[7] "Algorithmic Trading Source Code" is defined in Supplemental proposed § 1.3(ccccc). The Commission notes that source code was not defined in the NPRM. In this Supplemental NPRM, the Commission uses

Persons maintain a "source code repository" and make it available for inspection in accordance with the Commission's general recordkeeping requirements. These provisions provoked extensive comments. Notably, commenters may have misunderstood the Commission's intent, which was never to require that all source code to be provided routinely to a Commission or third-party repository. The Supplemental NPRM acknowledges the concerns regarding the confidentiality and proprietary value of Algorithmic Trading Source Code and revises these provisions extensively. While Algorithmic Trading Source Code and related records are still required to be preserved, they are not subject to the Commission's general recordkeeping provisions. Instead, preservation and access obligations are set forth in new provisions in the Supplemental NPRM that reflect market participants' concerns. The Supplemental NPRM provides that the Commission would have access to Algorithmic Trading Source Code and related records only via a subpoena or a special call approved by the Commission itself, not by staff, and that any such access would be subject to policies and procedures to protect confidentiality.

Seventh, the Supplemental NPRM discusses a number of changes to certain defined terms proposed in the NPRM, as well as other provisions that the Commission is considering in response to comments from market participants. These include limiting the scope of "Algorithmic Trading Compliance Issue," "Algorithmic Trading Disruption," and "Algorithmic Trading Event."

Eighth, Regulation AT includes a number of additional rules focused specifically on DCMs. As reflected in the NPRM, these proposals include: (1) greater transparency

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"source code" in connection with its proposal in the NPRM, and uses the term "Algorithmic Trading Source Code" when referring to Supplemental proposed § 1.3(ccccc).

around DCMs' electronic trade matching platforms and (2) promoting the use of self-trade prevention tools.[8] The Commission is contemplating deferring further consideration of such provisions to a second phase of rules to be finalized at a later date. The Commission seeks comments regarding deferral of these two provisions to a later date.

Finally, specific regulatory provisions addressed in the Supplemental NPRM include a number of new or revised defined terms, such as revised § 1.3(x)—Floor trader; revised § 1.3(wwww)—AT Order Message; revised § 1.3(xxxx)—AT Person; revised § 1.3(yyyy)—Direct Electronic Access; new § 1.3(ddddd)—Electronic Trading; new § 1.3(bbbbb)—Electronic Trading Order Message; and new § 1.3(ccccc)—Algorithmic Trading Source Code. Other new or revised regulatory provisions include: (1) new § 1.80(d)—Delegation of pre-trade risk controls by AT Persons; (2) new § 1.80(g) —AT Persons' pre-trade risk controls for Electronic Trading; (3) revised § 1.81—Standards for the development, monitoring, and compliance of Algorithmic Trading systems; (4) revised § 1.82—FCM pre-trade risk controls and other related measures for orders from their AT Person customers; (5) revised § 1.83—AT Person and executing FCM recordkeeping; (6) new § 1.84—Maintenance of Algorithmic Trading Source Code and

[8] The NPRM proposed amendments to existing § 38.255, to require DCMs to have in place systems reasonably designed to facilitate the FCM's management of the risks that may arise from their customers' Algorithmic Trading using DEA. Regulation AT would also amend existing § 38.401(a) to require DCMs to provide additional public disclosure regarding their electronic matching platforms. In part 40, the NPRM proposed the following new regulations: § 40.20—requiring DCMs to implement pre-trade risk controls and other related measures; § 40.21—requiring DCMs to provide a test environment to AT Persons; § 40.22—requiring DCMs to implement a review program for compliance reports regarding Algorithmic Trading submitted by AT Persons and clearing member FCMs, require that certain books and records be maintained by such persons, and review such books and records as necessary; § 40.23—requiring DCMs to implement self-trade prevention tools, mandate their use, and publish statistics concerning self-trading; and §§ 40.25-40.28—requiring DCMs to provide disclosure and implement other controls regarding their market maker and trading incentive programs. Regulation AT would amend the definition of "rule" in § 40.1(i) in response to certain of the changes proposed above.

related records; (7) new § 1.85—Use of third-party Algorithmic Trading systems or components;[9] (8) revised §§ 38.255 and 40.20—Risk controls for trading; (9) revised § 40.22—DCM requirements for AT Persons and executing FCMs, and DCM review program; and (10) revised § 170.18—AT Person registration for membership in at least one "RFA".

This Supplemental NPRM modifies some, but not all, of the NPRM. Where this Supplemental NPRM proposes rule text in full, such text replaces what was proposed in the NPRM. With the exceptions noted in this paragraph, where this Supplemental NPRM reserves a section or paragraph for which provisions were proposed in the NPRM, the previously proposed provisions of such section or paragraph remain unchanged from the NPRM and continue to be under active consideration by the Commission. For technical reasons, §§ 38.401 and 40.1(i), and Appendix B to part 38, are not shown as reserved in this Supplemental NPRM; however, the amended provisions proposed for those sections and that appendix in the NPRM also remain unchanged and under active consideration. (Please note that proposed reserved § 1.3(aaaaa) is not the subject of either this Supplemental NPRM or the NPRM. That definitions paragraph is the subject of another pending unrelated Commission rulemaking proposal.)

B. Opportunities for Public Comment on NPRM Proposals During Two Public Comment Periods and Public Staff Roundtable

In response to the NPRM, the Commission received 54 comment letters from an array of market participants, exchanges, industry trade associations, public interest

[9] Including, for example, options for complying with elements of NPRM § 1.81—"Standards for the development, monitoring, and compliance of Algorithmic Trading systems." See Section V below.

organizations, and others.[10] During the initial comment period, Commission staff also met in person and via telephone with interested parties who requested meetings. Market participants and other interested parties were also provided extensive opportunities to comment on the Commission's 2013 Concept Release on Risk Controls and System Safeguards for Automated Trading Environments ("Concept Release"), which included an initial 90-day comment period and a subsequent three-week comment period in conjunction with a public meeting of the Commission's Technology Advisory Committee.[11] The Concept Release and comments thereto helped inform a number of the proposals reflected in Regulation AT.

Comments received during the initial comment period described above helped to identify areas that warranted further consideration by staff. Accordingly, on June 10, 2016, Commission staff held a public roundtable ("Roundtable") to discuss certain

[10] During the 90-day comment period following the Commission's issuance of the NPRM, the Commission received comment letters from: Aesthetic Integration Ltd. ("AI"); Allen, Theo ("Allen"); Alternative Investment Management Association ("AIMA"); American Gas Association ("AGA"); Americans for Financial Reform ("AFR"); Anonymous (non-responsive comment); Asset Management Group of the Securities Industry and Financial Markets Association ("SIFMA"); National Introducing Broker Association ("NIBA"); Barnard, Chris ("Barnard"); Better Markets Inc. ("Better Markets"); Bloomberg Tradebook LLC ("Bloomberg"); CBOE Futures Exchange, LLC ("CBOE"); Citadel LLC ("Citadel"); CME Group Inc. ("CME"); Commercial Energy Working Group and Commodity Markets Council (collectively, the "Commercial Alliance"); Committee on Capital Markets Regulation ("CCMR"); Cordova, Alex ("Cordova"); CTC Trading Group, L.L.C. ("CTC"); Futures Industry Association ("FIA"); Hudson River Trading LLC ("Hudson Trading"); Information Technology Industry Council and U.S. Chamber of Commerce ("ITI and Commerce"); Institute for Agriculture and Trade Policy ("IATP"); Intercontinental Exchange, Inc. ("ICE"); International Energy Credit Association ("IECA"); International Swaps and Derivatives Association, Inc. ("ISDA"); Investment Adviser Association ("IAA"); LCHF Capital Management, Inc. ("LCHF"); Lelli, Carmen ("Lelli"); Leuchtkafer, RT ("Leuchtkafer"); Managed Funds Association ("MFA"); Mercatus Center at George Mason University ("Mercatus"); Minneapolis Grain Exchange, Inc. ("MGEX"); Modern Markets Initiative ("MMI"); NASDAQ Futures, Inc. ("NASDAQ"); National Grain and Feed Association ("NGFA"); Nodal Exchange, LLC ("Nodal"); North American Derivatives Exchange, Inc. ("Nadex"); Olam International Limited ("Olam"); OneChicago, LLC ("OneChicago"); Quantitative Investment Management, LLC ("QIM"); Schwartz, Peter ("Schwartz"); Shatto, Suzanne ("Shatto"); Summers, Neil ("Summers"); TraderServe Limited ("TraderServe"); Trading Technologies International, Inc. ("TT"); trueEX LLC ("trueEX"); Two Sigma Investments, LP ("Two Sigma"); Virtu Financial, Inc. ("Virtu"); Weaver, Jack ("Weaver"); and XTX Markets Limited ("XTX").

[11] Concept Release on Risk Controls and System Safeguards for Automated Trading Environments, 78 FR 56542 (Sept. 12, 2013); Reopening of Comment Period, 79 FR 4104 (Jan. 24, 2014).

elements of the NPRM. The topics discussed at the Roundtable included (1) the definition of DEA; (2) quantitative measures to establish the population of AT Persons; (3) alternatives to imposing pre-trade risk controls and development, testing, and monitoring standards on AT Persons; (4) AT Persons' compliance with elements of the proposed rules when using third-party algorithms or systems; and (5) Algorithmic Trading Source Code access and retention. The Roundtable included representatives from a broad cross-section of entities potentially impacted by Regulation AT.[12] A transcript of the Roundtable proceedings is available on the Commission's website at CFTC.gov.[13] In connection with the staff Roundtable, the Commission reopened the comment period for elements of Regulation AT for an additional two weeks. The Commission received an additional 19 comment letters during the reopened comment period.[14]

C. Overview of Comments Received

The comments that the Commission received in written letters and at the Roundtable addressed a range of matters in Regulation AT. For purposes of this

[12] The participants at the Roundtable included CME; Deutsche Bank; ICE; QIM; Tethys Technology ("Tethys"); Virtu; OneChicago; European Securities and Markets Authority ("ESMA"); ABN AMRO Clearing Chicago LLC ("ABN AMRO"); AFR; Shell Energy North America (U.S.), L.P. ("Shell"); Hartree Partners ("Hartree"); J.P. Morgan; KCG Holdings ("KCG"); AQR Capital Management ("AQR"); TT; Optiver US LLC ("Optiver"); and Hudson Trading.

[13] See http://www.cftc.gov/PressRoom/Events/opaevent_cftcstaff061016.

[14] In response to the NPRM, the Commission received: (i) written comments submitted during the initial 90 day comment period ("Initial Comment Period"); comments by Roundtable participants; and (iii) written comments submitted during the reopened comment period ("Second Comment Period"). Some commenters submitted multiple comments. Accordingly, this Supplemental NPRM identifies Roundtable comments with a Roman numeral "II" and Second Comment Period comments with a Roman numeral "III." For example, CME's comments are identified as CME (its Initial Comment Period comment letter); CME II (its Roundtable comments); and CME III (its Second Comment Period comment letter). During the Second Comment Period, the Commission received comment letters from: AIMA; Chilton, Bart; Better Markets; the Chamber of Commerce (together with ISDA, FIA and others); CME; Commercial Alliance; an industry group consisting of FIA, FIA Principal Traders Group, MFA, ISDA, and SIFMA Asset Management Group (collectively, the "Industry Group"); Hartree; Hudson Trading; ICE; KCG; MFA; MGEX; Milliman Financial Risk Management LLC ("Milliman"); MMI; Nadex; QIM, Schwartz; and TT.

Supplemental NPRM, the Commission is focusing solely on comments related to new or amended rules proposed herein.[15] For example, several commenters suggested that the proposed rules could impact a larger number of market participants (including new and existing Commission registrants) than would be appropriate or than the Commission estimated in the NPRM.[16] The Commission found these comments persuasive, as a result of which it developed the volume-based quantitative test for AT Persons described in Section II below and reflected in Supplemental proposed § 1.3(x)(2) (the "volume threshold test"). Some commenters also expressed concern regarding the NPRM's proposal to require risk controls for Algorithmic Trading at three levels (i.e., at the DCM, FCM and AT Person levels).[17] Although most saw value in pre-trade risk controls administered by DCMs, some commenters encouraged the Commission to limit any further risk control requirements to either AT Persons or FCMs, but not both. After careful consideration, the Commission is proposing the hybrid two-level risk control structure in which the first level would be at the level of the AT Person or FCM, as reflected in Supplemental proposed §§ 1.80(d) and (g), 1.82, and 1.3(xxxx)(2).[18]

A significant source of discussion in response to the NPRM focused on the source code provisions in NPRM proposed § 1.81(a)(vi). Commenters raised confidentiality, intellectual property, and information security as primary concerns. Many recommended

[15] The preamble to any final rules that the Commission may adopt for Regulation AT would provide a more complete summary of all comments received, including in response to the NPRM.
[16] E.g., CME A-7; ICE 6; MFA 34; Nadex 1-2.
[17] FIA 5; CME 6, A-14; ICE 5; MFA 4-5; Nadex 3; SIFMA 20; NIBA 1-2.
[18] As explained in Sections II and VI below, these provisions would establish a framework where FCMs act as one of two pre-trade risk control layers for all electronic trading not originating with an AT Person (see Supplemental proposed § 1.82). AT Persons would remain responsible for their own pre-trade risk controls in lieu of any FCM (see NPRM proposed § 1.80). However, the Supplemental NPRM provides additional flexibility by permitting AT Persons to delegate their pre-trade risk control functions to an FCM, while retaining legal responsibility for such controls (see Supplemental proposed § 1.80(d) and (g)). The Supplemental NPRM would also permit a non-AT Person to administer its own pre-trade risk controls if it so desired by voluntarily assuming AT Person status pursuant to Supplemental proposed § 1.3(xxxx)(2).

that registrants' source code should be available to the Commission only through subpoena.[19] Some commenters also noted that source code by itself may be of limited value to the Commission, and noted the importance of records such as log files in understanding the market behavior of an ATS.

The Commission is sensitive to commenters' confidentiality and information security concerns as summarized above and in Section IV of this Supplemental NPRM. As explained above, the Commission believes that its intent with respect to source code was misunderstood. Specifically, the Commission did not intend for a source code repository be maintained at the Commission or with third-parties. However, the Commission also emphasizes that preservation of source code, and Commission access to such source code, is vital. Recordkeeping and access to records are and have always been central to the Commodity Exchange Act's ("Act" or "CEA") statutory framework for regulated derivatives markets. Further, as a civil law enforcement agency, the Commission already handles sensitive, proprietary and trade secret information on a daily basis under strict retention and use requirements. Cybersecurity and the protection of confidential information are a top priority for the Commission, and all current and former CFTC employees are prohibited by 17 CFR 140.735-5 from disclosing confidential or non-public commercial, economic or official information.

Through this Supplemental NPRM, the Commission seeks to balance commenters' concerns against its legitimate regulatory interest in ensuring that the Algorithmic Trading Source Code that is often essential for transacting in modern electronic markets is preserved and is available to the Commission when necessary.

[19] E.g., AIMA 10-11; Barnard 2; Citadel 2; FIA 48; Hudson Trading 3; ICE 7; ISDA 6; MFA 23; MGEX 24-25; MMI 5; Commercial Alliance 12; QIM 5; TraderServe 1; TT 7; Two Sigma 4-5.

Source code related provisions are now reflected in a new Supplemental proposed § 1.84, which provides that any CFTC access to Algorithmic Trading Source Code must be authorized by the Commission itself through either the part 11 subpoena process or through a new "special call" process set forth in the proposal. Supplemental proposed § 1.84 also addresses records required to be maintained, confidentiality protections, and the time period for which records must be maintained. Supplemental proposed § 1.84 would replace NPRM proposed § 1.81(a)(vi) in its entirety.

Other amendments in the Supplemental NPRM address commenters' concerns regarding the proposed definition of DEA, AT Persons' compliance with rules when using third-party providers for their Algorithmic Trading technology, and other areas. With respect to third-party providers, for example, the Commission is adding Supplemental proposed § 1.85, which would permit AT Persons to rely on certifications from their third-party providers to meet certain requirements in Regulation AT. Such certifications would be permitted primarily with respect to NPRM proposed § 1.81(a), which requires AT Persons to follow certain standards in the development and testing of their ATSs.

Comments received in response to specific proposals in the NPRM are discussed in greater detail below.

II. AT Person Status and Requirements for AT Persons

A. Overview and Policy Rationale for New Proposal

The proposed rules in Regulation AT apply in large part to market participants who meet the requirements to be an "AT Person" as defined in NPRM proposed

§ 1.3(xxxx).[20] AT Persons include existing Commission registrants engaged in Algorithmic Trading,[21] as well as certain unregistered market participants who would be required to register as New Floor Traders pursuant to NPRM proposed § 1.3(x)(1)(iii). Registration criteria proposed in NPRM § 1.3(x)(1)(iii) for currently unregistered market participants include that such market participant be engaged in: (1) proprietary (2) Algorithmic Trading (3) through DEA on a DCM. In the NPRM, the Commission preliminarily determined that these criteria could function as "filters" on the population of AT Persons, and therefore on the overall scope of the proposed rules. The Commission estimated that this definition would result in a total of 420 potential AT Persons, and believed that this would represent the top end of the range of AT Persons. The Commission based its proposal, in part, on the view that proprietary trading, DEA, and Algorithmic Trading together could appropriately identify those market participants, including new and existing registrants, that any rulemaking should encompass to effectively address risks associated with Algorithmic Trading.

The Commission's estimates notwithstanding, a number of commenters have opined that the NPRM would capture substantially more than 420 AT Persons. Commenters indicated that DEA is a widespread practice, including potentially among

[20] In addition to AT Persons, Regulation AT also includes requirements for FCMs, DCMs, and RFAs.

[21] Algorithmic Trading is defined in NPRM proposed § 1.3(zzzz) to mean trading in any commodity interest as defined in paragraph (yy) of this section on or subject to the rules of a designated contract market, where: (1) One or more computer algorithms or systems determines whether to initiate, modify, or cancel an order, or otherwise makes determinations with respect to an order, including but not limited to: the product to be traded; the venue where the order will be placed; the type of order to be placed; the timing of the order; whether to place the order; the sequencing of the order in relation to other orders; the price of the order; the quantity of the order; the partition of the order into smaller components for submission; the number of orders to be placed; or how to manage the order after submission; and (2) Such order, modification or order cancellation is electronically submitted for processing on or subject to the rules of a designated contract market; provided, however, that Algorithmic Trading does not include an order, modification, or order cancellation whose every parameter or attribute is manually entered into a front-end system by a natural person, with no further discretion by any computer system or algorithm, prior to its electronic submission for processing on or subject to the rules of a designated contract market.

proprietary retail market participants. Some commenters also suggested that the Commission's proposed definition of Algorithmic Trading may be of limited value in filtering the number of AT Persons because, for example, it incorporates certain automated order routing systems ("AORSs"). At one end of the comment spectrum, several commenters stated that AT Persons could number in the thousands.[22]

The Commission has carefully considered all comments regarding the number of potential AT Persons pursuant to the proposed rules, particularly those comments indicating that the NPRM's defined terms and other elements may not successfully filter the scope of the rules. The Commission is therefore proposing in this Supplemental NPRM the addition of a volume threshold test to the definition of AT Person. In doing so, the Commission has also considered comments that any volume of trading potentially could pose risks. However, status as an AT Person involves compliance costs due to Regulation AT risk control, testing, recordkeeping and other requirements, and accordingly the Commission has determined that, at this time, it is appropriate to limit the population of AT Persons to larger market participants, including those responsible for significant trading volumes and liquidity in CFTC-regulated markets. The Commission emphasizes that its proposed framework requires FCMs to act as one of two pre-trade risk control layers for all Electronic Trading not originating with an AT Person (see Supplemental proposed § 1.82). Accordingly, the proposed risk control framework is not

[22] See, e.g., MFA 6, 12-13 (indicating that potentially thousands of market participants would be subject to Regulation AT); Nadex 1-2 (indicating that estimated number of affected participants would be significantly higher than 100, potentially in the thousands); FIA 91 (stating that "DCMs will be flooded by hundreds, if not thousands, of annual reports" pursuant to NPRM proposed §§ 1.83 and 40.22); CME A-7 (indicating that the DEA definition would capture trading activity of thousands of firms).

limited to the trading of AT Persons who satisfy a quantitative threshold (i.e., the volume threshold test described in Section II below).

The Commission emphasizes, as stated above, that Regulation AT is not intended to capture large swaths of new or existing registrants. The focus on Algorithmic Trading and DEA, among other criteria, reflects the Commission's interest in sophisticated market participants that can bring significant human capital, information technology, or other resources to bear on trading in modern markets. The definition of AT Person in Regulation AT is centered on larger market participants, including, those "responsible for significant trading volumes and liquidity."[23] Such market participants include existing Commission registrants, and an important population of proprietary traders who heretofore have remained outside of the Commission's registration regime. The Commission has determined to address both sets of market participants through a straightforward test for potential AT Persons that measures all market participants' presence on DCMs: total trading volume for all products across all DCMs, as described below.

Taking these considerations into account, the Commission has determined that a quantitative volume threshold test is best suited to identifying larger market participants who should be brought within the Commission's regulatory purview. To that end, the Commission is proposing a new approach that includes quantitative metrics based on a market participant's average daily trading volume across all products. Specifically, the Commission is proposing a volume threshold of 20,000 contracts traded on average per day, including for a firm's own account, the accounts of customers, or both, over a six

[23] See NPRM at 78827.

month period. The Commission believes that this approach will facilitate the identification of AT Persons through the use of clear, numerical standards that can be calculated easily by market participants and are verifiable in the Commission's data. The Commission further believes that the proposed volume threshold test is an appropriate vehicle to define the scope of AT Persons, in combination with the proposed definition of Algorithmic Trading and the proposed amended definition of DEA.[24] As discussed below, the Commission also considered a variety of quantitative thresholds in formulating the Supplemental NPRM proposal, including order related measurements and frequency metrics.

B. NPRM Proposal and Comments

The term "AT Person," as defined in the NPRM, involves several interrelated terms, including AT Person, floor trader, DEA, and Algorithmic Trading. The definitions proposed in the NPRM for each of those terms are discussed below, and changes thereto are noted where applicable.

AT Person. The NPRM proposed to define AT Person as an existing Commission registrant that engages in Algorithmic Trading on or subject to the rules of a DCM, or a New Floor Trader. In this Supplemental NPRM, the Commission is proposing an additional requirement for AT Person status: a volume threshold test, as described in Section II(C) below. In addition, as discussed below in Section VI(D)(3)(c), the

[24] The Commission also considered alternatives based on defined terms such as "DEA" and "Algorithmic Trading" that also serve to define the scope of AT Persons. The Supplemental NPRM proposes revisions to the definition of DEA based on public comments that the NPRM proposed definition was ambiguous, but does not propose amendments to the definition of Algorithmic Trading. The Commission believes the volume-based approach proposed herein is a better option as it is based on verifiable and easily observed data regarding the trading volumes of all market participants on DCMs.

Commission is also proposing to permit market participants to voluntarily elect AT Person status.[25]

The defined term "AT Person" remains central to the structure of the proposed rules. Regulation AT defines the term "AT Person" in order to identify which entities are subject to the proposed regulations addressing trading firms' management of the risks associated with automated trading. These regulations include, for example, pre-trade and other risk controls on the orders initiated by the trading firm, and standards for the development, testing and supervision of ATSs. The definition of AT Person under NPRM proposed § 1.3(xxxx) lists those persons or entities that may be considered an AT Person, namely (1) persons registered or required to be registered as FCMs, floor brokers, swap dealers ("SDs"), major swap participants ("MSPs"), commodity pool operators ("CPOs"), commodity trading advisors ("CTAs"), or introducing brokers ("IBs") that engage in Algorithmic Trading on or subject to the rules of a DCM; or (2) persons registered or required to be registered as floor traders as defined in § 1.3(1)(iii).[26]

Direct Electronic Access. Through this Supplemental NPRM, the Commission is proposing to amend the definition of DEA originally proposed in the NPRM. In the NPRM, the Commission proposed a new § 1.3(yyyy) that defined DEA as an arrangement where a person electronically transmits an order to a DCM, without the order first being routed through a separate person who is a member of a DCO to which

[25] See Supplemental proposed § 1.3(xxxx)(2). The Commission is providing flexibility so that non-AT Person market participants can administer their own pre-trade risk controls in lieu of controls that its FCM must otherwise impose. Such market participants must register as New Floor Traders and comply with obligations imposed on AT Persons.

[26] In the NPRM, the Commission proposed amending the definition of "floor trader" in existing § 1.3(x) to facilitate the registration of proprietary traders using DEA for Algorithmic Trading on a DCM. The NPRM proposed requiring such persons (i.e., New Floor Traders) to register as floor traders, assuming they were not already registered or required to register with the Commission in another capacity.

the DCM submits transactions for clearing. By using the word "routed," the Commission indicated that it means the process by which an order physically goes from a customer to a DCM. Section III below discusses the Commission's revisions to the proposed definition of DEA as part of this Supplemental.

Algorithmic Trading. The Commission is not proposing to amend the definition of Algorithmic Trading originally proposed in the NPRM.[27]

As the Commission explained in the NPRM, "[t]he term 'Algorithmic Trading' is a critical underpinning" of Regulation AT.[28] It noted that the proposed definition of Algorithmic Trading is similar to that which was adopted by the European Commission under MiFID II, except that it also includes AORSs.[29] It observed that "automated order routers have the potential to disrupt the market to a similar extent as other types of automated systems, and therefore should not be treated differently" under Regulation AT. It also explained that "given the interconnectedness of trading firm systems, carving out a particular subset of automated systems from the definition of Algorithmic Trading, e.g., order routing systems, would introduce unnecessary complexity and reduce the

[27] In the NPRM, the Commission proposed a new § 1.3(zzzz) that defines Algorithmic Trading as trading in any commodity interest as defined in Regulation 1.3(yy) on or subject to the rules of a DCM, where: (1) one or more computer algorithms or systems determines whether to initiate, modify, or cancel an order, or otherwise makes determinations with respect to an order, including but not limited to: the product to be traded; the venue where the order will be placed; the type of order to be placed; the timing of the order; whether to place the order; the sequencing of the order in relation to other orders; the price of the order; the quantity of the order; the partition of the order into smaller components for submission; the number of orders to be placed; or how to manage the order after submission; and (2) such order, modification or order cancellation is electronically submitted for processing on or subject to the rules of a DCM; provided, however, that Algorithmic Trading does not include an order, modification, or order cancellation whose every parameter or attribute is manually entered into a front-end system by a natural person, with no further discretion by any computer system or algorithm, prior to its electronic submission for processing on or subject to the rules of a DCM.

[28] See NPRM at 78840.

[29] See id.

effectiveness of the safeguards provided in its proposed regulations."[30] The Commission is cognizant of comments indicating some commenters' belief that the proposed definition of Algorithmic Trading should be revised to exclude certain systems such as AORSs. However, the Commission has thus far been presented with no persuasive evidence establishing that the operation of AORSs presents less risk to the market than other types of automated or algorithmic systems.

Comments Received. As discussed above, the NPRM proposed to define AT Person as an existing Commission registrant that engages in Algorithmic Trading on or subject to the rules of a DCM, or a New Floor Trader (i.e., a market participant that engages in (1) proprietary (2) Algorithmic Trading (3) through DEA on a DCM). In addition to receiving comments on the substance of NPRM proposed terms such as "Algorithmic Trading" and "DEA,"[31] the Commission also received comments concerning the number of market participants that would qualify as AT Persons under the proposed rules, particularly as a function of the defined terms discussed above. Several commenters asserted that the number of persons or entities that would come within the NPRM proposed definition of AT Person is higher than the Commission's estimate of 420 AT Persons. ICE commented that "[i]f read broadly (i.e. orders routed through an FCM's risk management controls located at the exchange but not physically routed . . . through the FCM are considered DEA), the Commission's estimated 100 market participants that would be impacted by Regulation AT would increase to include the vast

[30] See id.

[31] The comments received regarding the NPRM proposed definition of DEA are discussed in Section III(B) below. The Commission is proposing a revised definition of DEA, as set forth in Section III(C) below. The Commission is not proposing to amend the NPRM proposed definition of Algorithmic Trading.

majority of all market participants."[32] The Commercial Alliance stated that Regulation AT could apply to "a large segment of commercial energy and agricultural firms," contrary to the Commission's intent to limit its scope to one hundred new registrants.[33] MFA commented that "the breadth of the Regulation AT definitions are [sic] likely to capture many more market participants as AT Persons than the 420 persons that the Commission estimates."[34] MFA estimated that if even half of the CTAs and CPOs registered with the Commission used an algorithmic trading execution system, there would be at least 1,270 CTAs and CPOs that would be AT Persons, exclusive of other registrant categories.[35]

Several commenters estimated the total number of AT Persons could number in the thousands. Specifically, MFA asserted that if a commodity pool or managed account could be considered an AT Person, "there could be tens of thousands of AT Persons."[36] CME commented that "the CFTC should recognize that orders can pass through software that is calibrated by clearing members but maintained and owned by a clearing member's IT provider (e.g., TT or Bloomberg). If these orders are viewed as DEA orders because they are mischaracterized as bypassing clearing FCM controls, then the DEA definition will capture trading activity from significantly more firms (1000s) than the 100 firms mentioned in the rulemaking."[37]

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[32] ICE 6.
[33] Commercial Alliance 2; see also IECA 6 (asserting that Regulation AT could affect "vastly more" than 100 proprietary trading firms).
[34] MFA 34.
[35] See id.
[36] MFA 12 n.23.
[37] CME A-7. See also TT 3 (commenting that "the definition of DEA will likely capture within the definition of 'floor trader' many single traders, small trading groups and even larger companies like energy firms who hedge on futures exchanges, all of whom trade through FCMs and are often substantial liquidity providers.").

During the Roundtable and the Second Comment Period, the Commission received several comments regarding potential quantitative measures to establish the population of AT Persons. Better Markets commented that "[r]egarding a quantitative threshold, the CFTC must adopt a threshold using a metric that sets limits on volume and frequency."[38] Better Markets further commented that "[f]or registration purposes, FCMs should be tasked with monitoring proposed metrics and communicating these metrics to the CFTC because their 'know your customer' rules make them the most fit."[39] AIMA expressed concerns regarding quantitative measures, commenting that it "considers that additional metrics on top of the current proposed definition of AT Person may not be the optimal solution to avoid the disproportionately broad scope capturing excessive numbers of registered firms. The fundamental problem causing a large population of potential AT Persons is the inappropriately broad definition of [Algorithmic Trading]."[40] The Commercial Alliance also took the position that the Commission should not adopt a quantitative approach to establish the population of AT Persons.[41]

Commenters raised a number of concerns regarding potential quantitative measures, including that all algorithmic or electronic trading should be subject to appropriate risk controls;[42] that even a small volume of trading could pose risks to the

[38] Better Markets III 2.
[39] Id.
[40] AIMA III 3.
[41] Commercial Alliance III 2-4.
[42] ICE, transcript of June 10, 2016 Roundtable ("Roundtable Tr."), available at http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/transcript061016.pdf, 110:14-114:5; Optiver, Roundtable Tr. 119:11-120:17; see also FIA 6, 13, 21; ICE 4; and MGEX 20-21 (commenting that all market participants trading electronically should use pre-trade and other risk controls appropriate to their trading).

marketplace;[43] that any quantitative measure would necessarily be arbitrary;[44] and that market participants could seek to modify their trading to "game" any quantitative measure.[45] The Commission has carefully considered all comments received, and believes that the proposals set forth in this Supplemental NPRM address the comments regarding quantitative measures raised during the Roundtable and in written comments.

Specifically, the Commission is proposing to establish a framework where FCMs act as one of two pre-trade risk control layers for all Electronic Trading not originating with an AT Person (see Supplemental proposed § 1.82). The volume threshold test would identify those market participants with the most significant presence in CFTC-regulated markets. The Commission is also proposing an anti-evasion provision in Supplemental proposed § 1.3(xxxx)(4) to address commenters' concerns that a quantitative measure could be "gamed" by market participants.[46] As discussed in Section II(C) below, the proposed anti-evasion provision states that no person shall trade contracts or cause contracts to be traded through multiple entities for the purpose of evading the floor trader registration requirements under Supplemental proposed § 1.3(x)(3), or to avoid meeting the definition of AT Person under Supplemental proposed § 1.3(xxxx).

C. Substance of New Proposal

In light of comments received, the Commission is proposing an additional requirement for AT Person status: a volume threshold test. Pursuant to Supplemental

[43] Hudson Trading, Roundtable Tr. 95:10-97:8, 135:12-136:19; Optiver, Roundtable Tr. 119:11-19; KCG, Roundtable Tr. 120:21-121:8.
[44] Hartree, Roundtable Tr. 100:7-101:7; AQR, Roundtable Tr. 106:5-107:17, 109:9-110:13.
[45] Milliman III 3; Hudson Trading, Roundtable Tr. 97:15-98:4; AQR, Roundtable Tr. 107:18-108:7; QIM, Roundtable Tr. 117:13-114:10.
[46] See AQR, Roundtable Tr. 107:18-108:7; Hudson River Trading, Roundtable Tr. 97:19-21.

proposed § 1.3(xxxx), a market participant may fall under the definition of AT Person in one of three ways. First, the category of AT Persons includes persons registered or required to be registered as an FCM, floor broker, SD, MSP, CPO, CTA, or IB that (1) engages in Algorithmic Trading and (2) satisfies the volume threshold test under Supplemental proposed § 1.3(x)(2) (as discussed in greater detail below).[47] Second, AT Persons include New Floor Traders under Supplemental proposed § 1.3(x)(1)(iii).[48] Such New Floor Traders must engage in Algorithmic Trading, utilize DEA, and satisfy the volume threshold test under Supplemental proposed § 1.3(x)(2). Third, a person who does not satisfy either of the other two prongs of the AT Person definition may nevertheless elect to become an AT Person, provided that such person registers as a floor trader and complies with all requirements of AT Persons pursuant to Commission regulations.[49] In addition, each AT Person who is not already a member of an RFA must submit an application for membership to at least one RFA, as discussed below.

1. Volume Threshold Test for AT Persons

In light of commenter views that the Commission has underestimated the number of AT Persons that would fall within the scope of Regulation AT, the Commission proposes modifying the proposed definition of AT Person to incorporate a volume threshold test. Specifically, Supplemental proposed § 1.3(x)(2) would require potential AT Persons to determine whether they trade an aggregate average daily volume of at least 20,000 contracts for their own account, the accounts of customers, or both. The Commission notes that while many Commission registration categories (e.g., FCM, CPO,

[47] See Supplemental proposed § 1.3(xxxx)(1)(i).
[48] See Supplemental proposed § 1.3(xxxx)(1)(ii).
[49] See Supplemental proposed § 1.3(xxxx)(2).

floor broker, etc.) may trade both their proprietary and customer accounts, New Floor Traders are likely to trade solely for themselves. Accordingly currently unregistered market participants would likely look to their proprietary trading volume when determining whether they satisfy the volume threshold test.[50] For purposes of the volume threshold test, potential AT Persons would be required to calculate their aggregate average daily volume across all products on the electronic trading facilities[51] of all DCMs on which they trade.[52] Aggregate average daily volume would be calculated in six-month periods, from each January 1 through June 30 and each July 1 through December 31, based on all trading days in the respective period.[53] For purposes of calculating the aggregate average daily volume, AT Persons would also be required to aggregate their own trading volume and that of any other persons controlling, controlled by or under common control with the potential AT Person.[54]

The Commission believes that a volume threshold test based on total trading volume across the electronic trading facilities of all DCMs best matches the goals of AT Person regulation, including risk controls, recordkeeping and testing and monitoring of automated systems requirements that will prevent and reduce the potential risk of market disruption caused by technological malfunction or other error. This volume threshold test

[50] However, if a currently unregistered market participant is in fact trading the accounts of customers consistent with the Act and Commission regulations, such market participant should include their customer trading volume, in addition to their proprietary volume, when determining whether it satisfies the volume threshold test.
[51] "Electronic trading facility" is defined in section 1a(16) of the CEA. The aggregate average daily volume would not include block trades, exchange for related positions, pit trades, or other transactions outside a DCM's electronic trading platform.
[52] See Supplemental proposed § 1.3(x)(2)(i).
[53] See Supplemental proposed § 1.3(x)(2)(ii).
[54] See Supplemental proposed § 1.3(x)(2)(iii).

would apply to both current and new Commission registrants to help define whether they are AT Persons.

In making this determination, the Commission reviewed other quantitative thresholds proposed, or finalized, for regulatory purposes similar to those in Regulation AT. These other quantitative thresholds include, for example, tests proposed by ESMA for identifying high-frequency traders in European markets, i.e., average resting order times and daily number of messages sent by a trading entity. The Commission's purpose in creating the new AT Person category is to ensure that risk management, testing and monitoring standards are sufficiently high for larger market participants in futures markets, regardless of strategy or firm type. The Commission believes that, out of all actions taking place on an electronic platform, consummated transactions are the key element of market processes such as price discovery and risk transfer. For this reason, larger entities, across products taken as a whole, should be held to standards sufficient to mitigate the risks of general market disruptions or degradations in the quality of trading.

The Commission proposes setting a six-month window for calculating average daily trading volume. The Commission's intent is that a longer window will smooth out episodic volume fluctuations experienced by a firm through the year for a variety of reasons, including, for example, hedging practices, roll activity, or other seasonal reasons. By doing this, the set of AT Persons should be restricted to entities that are larger, sufficiently high-volume traders. The averaging window also should moderate the effect of market events where there is unusually high volume relative to historical levels.

The volume threshold test definition does not make a distinction between futures products or between futures and options contracts for the purposes of aggregation. The

Commission believes this is appropriate to help facilitate the volume calculation for potential AT Persons. Accordingly, the proposed volume threshold test instead results in an averaging across markets and products.

Using the proposed definition, and a trading volume threshold of 20,000 contracts traded per day on DCM electronic trading facilities—including for a firm's own account, the accounts of customers, or both, over a six month period—the Commission estimates that there would be approximately 120 AT Persons, a portion of which would be newly registered under the amended definition of floor trader.[55] In order to derive this estimate, the Commission made use of daily trading audit trail data, for futures and options on futures, received from a number of DCMs. This audit trail data included information about the trading activity of market participants on the electronic trading facility of each DCM, coinciding with the order and trade activity associated with electronic trading, the focus of many other elements of this Supplemental NPRM. Because the volume threshold test is based on activity within a semi-annual period, the Commission calculated the average activity of individual firms during the first half of 2016 and used these aggregate numbers as an activity benchmark. Aggregating this activity across the DCMs for which the Commission had firm identification provided a basis for estimating the number of potential AT Persons. The Commission notes that its data provides a significantly comprehensive, but not a full, identification of the firms associated with each trade; in other cases, the firm associated with a trade may be the broker rather than

[55] The Commission notes that over time it may amend the volume threshold it adopts in any final rules for Regulation AT. Such amendments would be an outgrowth of the Commission's experience with the volume threshold it adopts in final rules. As the Commission is proposing to codify the volume threshold in its rules, any future changes would necessarily be pursued through further notice and comment rulemaking.

the principal. For these reasons, the Commission estimates for the number of AT Persons may omit some firms that would meet the volume threshold requirements.

Because trading patterns for a given entity or firm may change over time, the Commission acknowledges that traders who are active enough to fall above the AT Person volume threshold test during a given semi-annual period may, over time, reduce their activity levels. To accommodate changes in strategy and in the use of futures markets, the AT Person definition allows for current AT Persons to drop their designation as an AT Person if they fall below the volume threshold for two consecutive six-month periods.[56]

2. Registration as a Floor Trader

Supplemental proposed § 1.3(x) modifies the new definition of floor trader, which also make up the group of AT Persons under Supplemental proposed § 1.3(xxxx)(1)(ii). Under the Supplemental proposed definition, a floor trader must, in addition to using DEA to conduct Algorithmic Trading (as proposed in the NPRM), also satisfy the volume threshold test set forth in Supplemental proposed § 1.3(x)(2). This proposal will help to address concerns that too many market participants would be captured by the new definition of floor trader proposed in the NPRM.

Supplemental proposed § 1.3(x)(3) specifies the period of time provided to an entity meeting these conditions to register as a floor trader and come into compliance with the requirements for AT Persons. Specifically, Supplemental proposed § 1.3(x)(3)

[56] The Commission's proposed volume threshold test helps determine, together with other factors, a market participant's obligation to register as a New Floor Trader. As described above, any Commission registrant who is also an AT Person, including a floor trader, may cease to be bound by the requirements applicable to AT Persons if such registrant falls below the volume threshold test for two consecutive six-month periods. The Commission notes, however, that a floor trader who ceases to be an AT Person shall still be registered as a floor trader unless it formally applies for withdrawal from registration as described in Commission § 3.33.

provides that an unregistered person who satisfies Supplemental proposed §§ 1.3(x)(1)(iii)(A), (x)(1)(iii)(B) and (x)(1)(iii)(C), and who meets the volume threshold test in Supplemental § 1.3(x)(2) in any January 1 through June 30 or July 1 through December 31 period, shall register as a floor trader within 30 days after the end of such period and shall comply with all requirements of AT Persons pursuant to Commission regulations within 90 days after the end of such period.

Supplemental proposed § 1.3(x)(3)(ii) describes which person or persons must register if there is an "affiliate group," under common control, that meets the volume threshold test in the aggregate. Supplemental proposed § 1.3(x)(3)(ii) states that for any group consisting of a person and any other persons controlling, controlled by or under common control of such person, if such group of persons in the aggregate satisfies the volume threshold test set forth in Supplemental proposed § 1.3(x)(2), then one or more persons in such group must register as floor traders. These registrations would need to continue across affiliated entities until the aggregate average daily volume of the unregistered persons in the group trade an aggregate average daily volume below the volume threshold test set forth in § 1.3(x)(2).[57]

3. Anti-Evasion

Supplemental proposed § 1.3(x)(4) provides that no person shall trade contracts or cause contracts to be traded through multiple entities for the purpose of evading the registration requirements imposed on New Floor Traders under § 1.3(x)(3), or to avoid meeting the definition of AT Person under § 1.3(xxxx). The purpose of this provision is

[57] The Commission's proposal for aggregating the trading volume of affiliated entities under common control is modeled on analogous provisions in the Commission's swap dealer registration requirements. See existing § 1.3(ggg)(4) and Interpretative Guidance and Policy Statement Regarding Compliance With Certain Swap Regulations, 78 FR 45292 (July 26, 2013).

to prevent market participants whose trading volume would otherwise cause them to fall within the definition of New Floor Trader (and, therefore, AT Person), but who trade through multiple entities for the purpose of falling below the volume threshold test, from avoiding registration. By including such anti-evasion provision, the Commission seeks to prevent market participants from structuring transactions and legal entities in order to avoid the requirements of Regulation AT. Examples of these structures might include trading through multiple "shell" companies that individually trade below the threshold, or trading through one entity for part of the year, then ceasing all trading activity for that entity and trading instead through a newly formed entity, similarly leaving average daily volume under the threshold.

4. Registration for Membership with a Registered Futures Association

In addition to being registered with the Commission in some capacity, AT Persons must also submit applications for membership in at least one RFA.[58] In particular, Supplemental proposed § 170.18 requires that an AT Person not yet a member of an RFA must submit an application for membership in at least one RFA within 30 days of such AT Person satisfying the volume threshold test set forth in Supplemental proposed § 1.3(x)(2).[59] In addition, Supplemental proposed § 1.3(xxxx) provides that any person that elects to become an AT Person must submit an application for membership to

[58] The Commission is cognizant that upon the adoption of final rules for Regulation AT, an RFA may need additional time to prepare its governance structure, membership categories, application materials, and other internal processes to accommodate New Floor Traders. Accordingly, the Commission may determine to delay the compliance date for Supplemental proposed § 170.18 for a short period of time so that an RFA may complete such processes prior to receiving its first application for membership from a New Floor Trader.

[59] Any unregistered person who meets the requirements to register as a New Floor Trader would have identical 30-day periods in which to both register with the Commission and apply for membership in an RFA.

at least one RFA pursuant to Supplemental proposed § 170.18 within 30 days of such person choosing to become an AT Person.[60]

D. Commission Questions

1. The Commission invites comment on the proposed volume threshold test set forth in Supplemental proposed § 1.3(x)(2). In particular, the Commission specifically invites comment on whether the volume threshold test is an appropriate means of identifying those market participants who should qualify as AT Persons and therefore be subject to the proposed risk control, recordkeeping testing and monitoring and other requirements in Regulation AT.

2. If you believe that AT Persons should be identified by a quantitative measure other than the proposed volume threshold test, please identify and describe such alternative measure, including the number and types of market participants that would qualify as AT Persons.

3. The proposed volume threshold test would require a potential AT Person to determine whether it trades an aggregate average daily volume of at least 20,000 contracts over a six month period. Do you believe that a potential AT Person's average daily volume for purposes of the volume threshold test should instead be calculated only over the days in which the potential AT Person trades during the six month period? Would such alternative better address potential AT Persons who may trade infrequently over the course of a six month period, but in large quantities when they do trade?

[60] The Commission does not require such membership to be in a specific membership category. An RFA may register such AT Persons as "floor traders," or choose to create a subset or other category of Regulation AT floor traders for membership purposes.

4. The Commission estimates that its proposed volume threshold of 20,000 contracts traded per day, including for a firm's own account, the accounts of customers, or both, across all products and DCMs, would capture approximately 120 market participants, including new and existing registrants. Please comment on the Commission's estimate. Do you believe that the number of market participants captured by this volume threshold test would be greater or fewer than 120? Please indicate how many of these market participants are currently registered with the Commission and how many are not.

5. With the addition of the proposed volume threshold test, do you believe that any AT Person will be a natural person or a sole proprietorship with no employees other than the sole proprietor?

6. For the proposed volume threshold test, please explain any challenges that could arise with respect to implementation. For example, what difficulties might an entity potentially subject to Regulation AT encounter in calculating whether it meets the volume threshold? Will the entity be able to readily distinguish between trades executed on a DCM's electronic trading facility and other trades executed on or pursuant to the rules of the DCM? Does the volume threshold test potentially capture a set of entities that should not be subject to Regulation AT?

7. For the proposed volume threshold test, please explain whether the proposed rule should specify a different aggregation level for purposes of deciding who is an AT Person (e.g., individual DCMs, individual products), or whether the aggregation should be done over a time period different than the proposed semi-annual window.

8. For the proposed volume threshold test, please explain whether certain trades should be weighted differently in calculating the volume aggregation, or whether certain trades such as spread trades should be excluded from the aggregation.

9. For the proposed volume threshold test, the Commission proposes to set a single threshold incorporating trading in all products and on all DCMs in order to facilitate calculations for potential AT Persons. Please explain whether the Commission should instead set different thresholds for groups of related products, or on a per-DCM basis, or other more granular measures than the aggregation of a potential AT Person's trading across all products and DCMs. Please also discuss the added complexity of any such alternate system, and explain why such system is preferable despite such complexity.

10. Supplemental proposed § 1.3(x)(2)(ii) calls for aggregate average daily volume to be calculated in six-month periods, from each January 1 through June 30 and each July 1 through December 31. The Commission requests comment regarding when to begin the first six-month measurement period for any final rules that the Commission adopts. For example, the Commission anticipates that for any final rules with an effective date prior to July 1, 2017, the first measurement period will be July 1 through December 31, 2016. Alternatively, the Commission could delay the effective date for certain elements of the final rules to a date from July 1, 2017 onwards. In such case, the first measurement period could be January 1 to June 30, 2017.

11. The Commission invites comment on whether any future changes to the volume threshold deemed appropriate by the Commission (subsequent to a final rulemaking on Regulation AT) should be made by notice and comment rulemaking.

Commenters are particularly invited to address potential alternatives to updating the volume threshold, if any.

12. The Commission invites comment as to how the proposed volume threshold test should be applied to members of an affiliated group. Commenters are particularly invited to address how the Commission should interpret common control for these purposes, and whether this interpretation should be limited to wholly-owned affiliates.

13. The Commission requests comment regarding the appropriate amount of time for an entity to register as a New Floor Trader and come into compliance with all requirements applicable to AT Persons, once such entity has triggered the criteria for registration and AT Persons status.

III. Proposed Definition of DEA

A. Overview and Policy Rationale for New Proposal

The Commission proposed in NPRM § 1.3(yyyy) to define DEA for purposes of Regulation AT as an arrangement where a person electronically transmits an order to a DCM, without the order first being routed through a separate person who is a member of a DCO to which the DCM submits transactions for clearing.[61] The NPRM explained that the term "routed" was intended to mean the process by which an order physically goes from a customer to a DCM. The Commission proposed this definition of DEA in the NPRM as a filter, along with Algorithmic Trading, to help define the category of proprietary traders that would be required to register as floor traders under Regulation AT. The Commission anticipated that the proposed definition of DEA could help to

[61] See NPRM at 78844.

define the number of entities required to register as New Floor Traders, and to focus registration on larger market participants not otherwise registered with the Commission. In light of comments received on the NPRM, and in light of the proposed addition of a volume threshold test to filter out smaller market participants from floor trader registration and its attendant obligations, the Commission is proposing an amended definition of DEA, as described below.

The Supplemental proposed defined term DEA means the electronic transmission of an order for processing on or subject to the rules of a contract market, including the electronic transmission of any modification of such order. DEA would not include orders, or modifications or cancellations thereof, (i) electronically transmitted to a DCM (ii) by an FCM (iii) that such FCM received from an unaffiliated natural person[62] (iv) by means of oral or written communications.[63] The amended definition differs from the NPRM definition in four key areas: (a) eliminating the term "routed through"; (b) clarifying that DEA does not include orders submitted to a DCM by an FCM where such FCM received the order from an unaffiliated natural person by means of written or oral

[62] The Commission notes that an "unaffiliated natural person" is one who has no affiliation with, and whose employer has no affiliation with, the FCM receiving the order. Such natural person may be communicating the order for another (unaffiliated) Commission registrant, an (unaffiliated) unregistered market participant, an (unaffiliated) end customer, etc. Examples of scenarios that are not DEA include: (1) An employee of a Commission registrant communicates an order to an unaffiliated FCM, verbally or in writing, for onward transmission by such FCM to a DCM; (2) A natural person customer communicates an order to an unaffiliated FCM, verbally or in writing, for onward transmission by such FCM to a DCM; and (3) An employee of customer that is a legal entity not registered with the Commission communicates an order to an unaffiliated FCM, verbally or in writing, for onward transmission by such FCM to a DCM. The Commission emphasizes that an unaffiliated natural person has no relationship, and their employer has no relationship, with the FCM receiving the order for submission to a DCM.

[63] The Commission notes that "written communications" may include email, text messages, or instant messaging "chat" tools, in addition to communications on paper. The common denominator is that such communications are in each instance specifically written by a natural person.

communication;[64] (c) changing the proposed rule's reference to "clearing members" of DCOs to any FCM; and (d) expanding the term "order" to include the cancellation or modifications of such order.

B. NPRM Proposal and Comments

In the NPRM, DEA was relevant to several of the proposed regulations. It was used as a filter to define the category of market participants required to register as floor traders and be subject to the requirements of Regulation AT (see proposed § 1.3(x)(3)). In addition, DEA was relevant to revised § 38.255, which requires DCMs to have in place systems and controls reasonably designed to facilitate an FCM's management of the risks that may arise from Algorithmic Trading, and proposed § 1.82, which requires FCMs to implement such DCM-provided controls for DEA orders. This approach of enabling clearing FCMs to implement DCM-based controls is similar to how the Commission addresses financial risk management by FCMs, as reflected in existing DCM regulation § 38.607. Existing § 38.607 describes DEA as allowing customers of futures commission merchants to enter orders directly into a designated contract market's trade matching system for execution.[65] As discussed below, the Commission proposes to amend the definition of DEA to address various commenter concerns, and the term continues to be relevant to Supplemental proposed §§ 1.3(x)(1)(iii), 1.82 and 38.255.

Comments Received. The Commission received a range of comments concerning the scope and clarity of the definition of DEA proposed in the NPRM. Better Markets

[64] The Commission notes that this exclusion addresses the "how" and "by whom" of an order's communication to the FCM. Such communication must be made by a (1) unaffiliated (2) natural person (3) verbally or in writing.

[65] In addition, in the context of foreign boards of trade, section 4(b)(1)(A) of the CEA defines "direct access" as an explicit grant of authority by a foreign board of trade to an identified member or other participant located in the United States to enter trades directly into the trade matching system of the foreign board of trade.

commented that the NPRM's definition of DEA encompassed all types of access commonly understood in Commission-regulated markets as "direct market access."[66] Other commenters raised a number of concerns over the NPRM proposed definition of DEA and its application to various types of market participants. One commenter cautioned that the NPRM proposed definition of DEA would not capture any market participants because clearing members are required to have risk controls over automated customer orders under existing § 1.73.[67] Some commenters found the NPRM definition too broad, and argued that it would capture individual traders and small trading groups, as well as large corporations using futures markets to hedge risks.[68] CME stated that this broader reading of DEA would capture thousands of firms if the term includes orders that pass through software calibrated by clearing members but maintained and owned by a clearing member's IT provider (e.g., TT or Bloomberg).[69] Two commenters suggested that the definition of DEA is unnecessary because any market participant trading electronically must utilize pre-trade and other risk controls appropriate to the nature of their trading.[70]

Several commenters asserted that the NPRM proposed definition of DEA lacks clarity,[71] and that the definition does not provide sufficient guidance as to what "being routed through a separate person" that is a member of a DCO means.[72] Many commenters argued that DEA should not include DCM-offered connectivity platforms

[66] Better Markets 3; Better Markets III 3-4.
[67] CME, 12.
[68] TT 3.
[69] CME A-7.
[70] FIA 6; ICE 4-5.
[71] TT 2; MFA 15; CME 11-12; ICE 4; IECA 7.
[72] TT 2; CME 11-12; ICE 4.

such as WebICE or CME Direct.[73] Commenters also argued that DEA should not include platforms provided by third-party ISVs;[74] one commenter considered such ISVs to be an extension of the FCM's infrastructure where the FCM was able to control a risk control module on the platform.[75]

Some commenters also suggested that the NPRM definition was too narrowly focused on the role of clearing FCMs, as opposed to executing FCMs. Several commenters argued that executing FCMs could better act as gatekeepers over customer order flow than clearing FCMs.[76] For example, Milliman commented that NPRM proposed § 1.3(yyyy) should be modified to refer to an order being routed through a separate person who is an "executing agent" (rather than a clearing member).[77] QIM raised the issue of FCM "gateways" through which customers could submit orders, and commented that only the person or agent directly placing trades on a DCM should be considered to possess DEA[78]

Commenters offered a variety of alternate definitions of DEA, with the intent that DEA not capture certain types of market participants. Bloomberg and TT offered alternate definitions that would exclude market participants using third-party software platforms provided by FCMs.[79] CME offered an alternative definition that would

[73] FIA A-17; MFA 15; AGA 3; Commercial Alliance III 4; ICE 5; CME A-7.
[74] FIA A-6; MFA 15; TT 3; Commercial Alliance 4.
[75] FIA A-6.
[76] Milliman III 2. One commenter also noted that there may be non-FCM clearing members of a DCM, which could create situations under the NPRM proposed rules where there would be "no second line of pre-trade risk control administered by an FCM." Industry Group III 15 n.12. One commenter also suggested that limiting the exclusion to instances where a clearing member had risk controls in place would incentivize market participants to move away from the use of executing FCMs and give-up arrangements. See Bloomberg 7.
[77] Milliman III 2.
[78] QIM III 1.
[79] Bloomberg 8-9; TT 3.

exclude orders passing through risk controls administered by a clearing member.[80] FIA and the Commercial Alliance offered an alternative definition that would exclude orders that are first routed through an order routing system under the control of an FCM.[81] Better Markets proposed a definition that would take into consideration colocation and the use of FCM-provided software.[82] Nadex supported defining DEA, consistent with existing Commission § 38.607, as "allowing customers of FCMs to enter orders directly into a DCM's trade matching system for execution."[83] Similarly, Nodal commented that the definition of DEA in § 38.607 "is an accurate definition of Direct Electronic Access that does not need revision."[84]

C. Substance of New Proposal

The Commission proposes to amend the definition of DEA in § 1.3(yyyy) of the NPRM to address the comments summarized above, including with respect to potential ambiguities in the NPRM's definition of DEA. At the same time, the Supplemental NPRM retains DEA as one of the criteria for defining who must register as a New Floor Trader. The addition of the volume threshold test pursuant to Supplemental proposed § 1.3(x)(2) will act as a further filter for New Floor Traders, limiting registration to large market participants. This will limit AT Person status and its attendant obligations to only those market participants who meet the volume threshold test.

The Commission intends for the amended proposed definition of DEA to cover any arrangement where a market participant electronically transmits an order,

[80] CME 12.
[81] FIA 6; Commercial Alliance 6.
[82] Better Markets III 4.
[83] Nadex III 2.
[84] Nodal 2.

modification or cancellation to a DCM. However, the amended proposed definition excludes from the definition of DEA any orders submitted by an FCM where the FCM receives such order from an unaffiliated natural person by means of written or oral communication. As noted in Section III(A) above, an "unaffiliated" natural person is one who has no affiliation with the FCM receiving the order for submission to a DCM. Similarly, the natural person's employer can have no affiliation with such FCM.

The NPRM definition of DEA exempted orders that were "routed through" a clearing FCM. After receiving comments requesting clarification on this phrase, the Commission proposes changing the definition of DEA so that it does not include orders electronically submitted to a DCM by an FCM that such FCM first receives from an unaffiliated natural person by means of oral or written communications. The Commission believes that this revision clarifies which order submission methods are DEA, and which are not, for purposes of Regulation AT. The Commission expects that the language in which an FCM electronically submitting orders first received from an unaffiliated natural person by means of oral or written communications will only encompass situations where the FCM is acting in a true intermediating role: i.e., where the FCM receives an order from a third-party (who may or may not be a Commission registrant) and the FCM then submits such order to a DCM for or on behalf of the third party. Each element of Supplemental proposed § 1.3(yyyy) is intended to emphasize an FCM's active, involved intermediation as a necessary condition for non-DEA order submission, modification, or cancellation. Accordingly, non-DEA orders must be received by an FCM orally or in writing, from a natural person, who is unaffiliated and whose employer is unaffiliated with the FCM.

Because technological innovations have created, and may continue to create, new methods for market participants to connect to DCMs, the Commission has determined not to differentiate between currently existing connection types. Instead, the amended proposed definition would capture all electronic order submissions to a DCM as DEA, unless the order is first received by an FCM from an unaffiliated natural person by means of written or oral communication prior to being submitted to the DCM by the FCM.[85] To identify specific connection types in this definition—such as connection through a DCM's application program interface ("API")—risks having the definition become outdated with changes in technology while simultaneously creating uncertainty over the regulatory standing of such new technology.

Second, the exclusion would apply only where an FCM receives an oral or written communication from a natural person for a particular order or series of orders. The exclusion would not apply to orders received through electronic systems or automated means, such as through any API or graphical user interfaces ("GUIs") provided by an FCM. The exclusion also would not apply to any third-party ISV platforms, such as those provided by Bloomberg or TT, even if the FCM were able to calibrate or implement risk controls over customer order flow submitted through those platforms. Further, the exclusion would not apply to any orders submitted through DCM-provided APIs, such as WebICE or CME Direct. In each case, current and potential technological practices may

[85] The Commission understands that written or oral communications are not computer-generated, and therefore such communications would come from a natural person. The Commission notes that "written communications" may include email, text messages, or instant messaging "chat" tools, in addition to communications on paper. The common denominator is that such communications are in each instance specifically written by a natural person.

serve to reduce or eliminate the role of an FCM or other Commission registrant as a true intermediary to the transaction.

Third, the Commission's amended proposed definition also would change the entity that must be involved in an order's transmittal to the DCM for such order not to be considered DEA. The NPRM proposal would exclude orders routed through a clearing member of a DCO to which the DCM submits trades for clearing, thus applying to clearing FCMs. The amended proposal would expand the exclusion from DEA to certain types of orders submitted by any FCM, including those FCMs that a market participant may use only to execute trades as well as those used to clear trades. This change is in response to various comments suggesting that executing FCMs could better act as gatekeepers on customer order flow than clearing FCMs.

Fourth, the amended proposal differs from the NPRM proposal in that the definition of DEA proposed in this Supplemental NPRM applies explicitly to modifications and cancellations of orders, not only initial order submissions. The Commission considers this a non-substantial clarification intended to align the DEA definition with the proposed definition of Algorithmic Trading (NPRM proposed § 1.3(zzzz)).

D. Commission Questions

14. Does the amended proposed definition of DEA appropriately capture all order submission methods to which the additional filters for New Floor Trader status (i.e., Algorithmic Trading and the volume threshold test) should be applied?

IV. Algorithmic Trading Source Code Retention and Inspection Requirements

A. Overview and Policy Rationale for New Proposal

The Commission proposed NPRM § 1.81(a)(vi) to ensure that source code is preserved and available to the Commission when necessary. The NPRM required that AT Persons maintain a "source code repository" and make it available for inspection in accordance with existing § 1.31. The requirements proposed in the NPRM were intended to be consistent with the Commission's traditional statutory and regulatory authorities governing recordkeeping and access to records; however, as explained below, some commenters misconstrued the proposal as requiring more than the Commission intended. Specifically, NPRM proposed § 1.81(a)(vi) did not require the transfer of all source code to the Commission or other third party for centralized storage. It also did not require that AT Persons provide their Algorithmic Trading Source Code to the Commission on a regular basis.

Comments received in response to NPRM proposed § 1.81(a)(vi) expressed intellectual property and information security concerns among numerous market participants and other observers. The Commission appreciates these concerns, including the commercial and enterprise value of market participants' Algorithmic Trading Source Code. The Commission is proposing to revise NPRM proposed §§ 1.81(a)(1)(v) and (vi) as reflected in Supplemental proposed § 1.84. This new proposal directly addresses commenters' concerns regarding Commission access to source code in several respects. Most importantly, access to Algorithmic Trading Source Code would not be governed by § 1.31. Instead, access to Algorithmic Trading Source Code and related records described in the proposed rule would require a subpoena approved by the Commission pursuant to part 11 or a "special call" which must also be approved by the Commission

itself, a heightened procedural step that responds to concerns raised by market participants.

Through Supplemental proposed § 1.84, the Commission is endeavoring to balance its responsibility to oversee markets and market participants—including the operation of ATSs which have become highly pervasive in modern electronic markets—with market participants' strongly-held privacy and confidentiality concerns. Ultimately, it is imperative that the Commission have access to all information necessary for effective regulatory oversight, including market surveillance and maintaining the safety and soundness of markets. The Commission believes that Supplemental proposed § 1.84 strikes an appropriate balance between regulatory needs and privacy concerns.

The Commission emphasizes that recordkeeping and Commission access to books and records are central to the Act's statutory framework for the oversight of regulated derivatives markets. Sections 4g, 4n(3)(A), 4r(c), and 4s(f)(1)(C) of the Act require all registrants and registered entities to maintain books and records, and provide for prompt access by the Commission and its staff. They include nearly identical language stating that registrants and registered entities shall keep books and records in such form and manner and for such period as may be required by the Commission; and shall keep such books and records open to inspection by any representative of the Commission.[86] These core statutory provisions recognize that the Commission must have adequate information

[86] 17 CFR 1.31. See Section 4g(a) of the Act, 7 U.S.C. 6g(a); Section 4n(3)(A) of the Act, 7 U.S.C. 6n(3)(A); Section 4r(c) of the Act, 7 U.S.C. 4r(c); and Section 4s(f)(1)(C) of the Act, 7 U.S.C. 6s(f)(1)(C). Sections 1.31 and 1.35 of the Commission's rules build on these statutory provisions by requiring registrants to keep full, complete, and systematic records, and to produce such records as required by any representative of the Commission. See 17 CFR 1.35; 17 CFR 1.31. Records must be kept for at least five years, and must be "readily accessible" during the first two years. See 17 CFR 1.31(a)(1). Records must be produced to the Commission in a form specified by any representative of the Commission, and production shall be made, at the expense of the person required to keep the book or record. See 17 CFR 1.31(a)(2).

to oversee markets and market participants subject to its jurisdiction.[87] Required books and records include not only those that must be reported to the Commission on a routine basis, but also books and records that registrants must maintain in their own possession and make available upon request by the Commission or its staff. The Act and Commission rules contemplate a range of mechanisms to obtain books and records, from prompt production to Commission staff through on-site inspection,[88] to subpoenas in investigative proceedings pursuant to part 11 of the Commission's regulations.

As a civil law enforcement agency, the Commission handles sensitive, proprietary and trade secret information under strict retention and use requirements.[89] Further, cybersecurity and the protection of confidential information are a top priority for the Commission.[90] The Commission receives confidential information on a daily basis in a variety of contexts, and takes its legal obligation to protect such information seriously. The Commission has significant data security measures in place to protect sensitive

[87] In addition to the statutory authority cited above under Sections 4g, 4n(3)(A), 4r(c), and 4s(f)(1)(C) of the Act, the Commission notes that Section 8a(5) of the Act provides additional authority for the proposed recordkeeping and inspection rules. Section 8a(5) authorizes the Commission to make and promulgate such rules and regulations as, in the judgment of the Commission, are reasonably necessary to effectuate any of the provisions or to accomplish any of the purposes of this Act. 7 U.S.C. 12a(5).

[88] See 17 CFR 1.31(a)(2).

[89] See Section 8(a) of the Act, 7 U.S.C. 12(a) (providing that except as otherwise specifically authorized in the Act, the Commission may not publish data and information that would separately disclose the business transactions or market positions of any person and trade secrets or names of customers); Section 8(e) of the Act, 7 U.S.C. 12(e) (providing that the Commission shall not furnish any information to a foreign futures authority or to a department, central bank and ministries, or agency of a foreign government or political subdivision thereof unless the Commission is satisfied that the information will not be disclosed by such foreign futures authority, department, central bank and ministries, or agency except in connection with an adjudicatory action or proceeding brought under the laws of such foreign government or political subdivision to which such foreign government or political subdivision or any department, central bank and ministries, or agency thereof, or foreign futures authority, is a party); 17 CFR 145.5 (providing that the Commission may decline to publish or make available to the public certain nonpublic records, including records specifically exempted from disclosure by statute, including data and information which would separately disclose the business transactions or market positions of any person and trade secrets or names of customers); see also 5 U.S.C. 552(b)(4) (providing exemption from FOIA for trade secrets and commercial or financial information obtained from a person and privileged or confidential).

[90] See System Safeguards Testing Requirements, Final Rule, 81 FR 64272 (Sept. 19, 2016); System Safeguards Testing Requirements for Derivatives Clearing Organizations, Final Rule, 81 FR 64322 (Sept. 19, 2016).

information from internal or external threats. In addition, all current and former CFTC employees are prohibited by 17 CFR 140.735-5 from disclosing confidential or non-public commercial, economic or official information to any unauthorized person, or releasing such information in advance of authorization for its release.

In sum, this Supplemental NPRM and the Algorithmic Trading Source Code amendments proposed herein achieve four important goals. First, the Commission is clarifying its intent regarding Algorithmic Trading Source Code. The Commission's interest is in ensuring that Algorithmic Trading Source Code is preserved by AT Persons and that it be available for inspection by the Commission when needed to investigate, understand, and respond, for example, to significant market events, including market disruptions and failures of the price discovery process. The Commission does not seek routine access to Algorithmic Trading Source Code, nor is it requiring that Algorithmic Trading Source Code be provided to repositories maintained by the CFTC or a third party.

Second, the Commission is proposing to codify in Supplemental proposed § 1.84(b) that any access to Algorithmic Trading Source Code must be authorized by the Commission itself. Such access could be authorized via subpoena, in an investigatory proceeding pursuant to part 11 of the Commission's regulations, or via special call authorized by the Commission and executed by the Director of the Division of Market Oversight ("DMO" or "Division") pursuant to Supplemental proposed § 1.84(b). The Commission notes that the different methods of access to source code – subpoena or special call – depend on whether Commission staff is: (1) formally investigating potential violations of law; or (2) carrying out its market oversight responsibilities.

Subpoenas are typically issued in connection with enforcement investigations. The proposed special call authority and process is intended to require similar Commission approval, but to recognize, for example, the potential need for DMO to review source code, such as in association with unusual trading events or market disruptions. While some commenters recommended that the Commission rely on subpoenas for access to source code in all circumstances, the Commission believes it is important to distinguish investigatory proceedings from access to records by DMO in connection with market surveillance and related work.[91] However, both the subpoena and the special call would require approval by the Commission itself.

The Commission notes Supplemental proposed § 1.84's emphasis on access to Algorithmic Trading Source Code and related files in support of the Commission's market and trade practice surveillance functions. In executing the special call, communications from DMO to the AT Person could specify further procedures undertaken by the Division to help ensure the security of records provided. For example, the Division could specify the means by which it will access Algorithmic Trading Source Code or other records required by the special call, including on-site inspection at the facilities of the AT Person; the provision of records to the Commission on secure storage media or on computers lacking network connectivity; or the transfer of records to secure Commission systems with controlled access.

Third, and building on public comments regarding additional information necessary for the Commission to understand the operation of Algorithmic Trading in regulated markets, the Commission is proposing in Supplemental proposed § 1.84(a)(3)

[91] The Commission notes that it would continue to possess subpoena authority with respect to source code, as it does today.

that AT Persons be required to keep records of log files generated in the ordinary course by their ATSs. Absent subpoena, access to such log files would also be limited to special call by the Commission. As with other regulatory records, both Algorithmic Trading Source Code and log files would be required to be maintained for a period of five years.[92] Pursuant to Supplemental proposed § 1.84(b)(2), AT Persons would be required to maintain records "in a form and manner that ensures the authenticity and reliability of the information in such records," and would also be required to have available "systems to promptly retrieve and display" records required to be maintained under Supplemental proposed § 1.84.[93]

Finally, consistent with section 8(a) of the CEA, the Commission is emphasizing in Supplemental proposed § 1.84(b)(3) that key confidentiality protections would apply to any records provided to the Commission pursuant to § 1.84. The Commission notes that section 8 of the Act and other Commission rules governing confidential information would apply to Algorithmic Trading Source Code and related files even in the absence of Supplemental proposed § 1.84(b)(3).[94]

B. NPRM Proposal and Comments

The NPRM proposed that each AT Person maintain a "source code repository" to manage source code access, persistence, copies of all code used in the production

[92] See Supplemental proposed § 1.84(a).

[93] In this regard, Supplemental proposed § 1.84(b)(2) is modeled on existing Commission recordkeeping rules in § 1.31, which also call for persons subject to recordkeeping to maintain capabilities by which the Commission can view required records.

[94] In this regard, Supplemental proposed § 1.84(b)(3) is intended to emphasize the confidential nature of any Algorithmic Trading Source Code provided to the Commission. The protections of section 8 would apply even absent codification by the Commission in Supplemental proposed § 1.84(b)(3). Section 8 provides, among other things, that except as otherwise specifically authorized the Commission may not publish data and information that would separately disclose the business transactions or market positions of any person and trade secrets or names of customers. See 7 U.S.C. 8(a)(1).

environment, and changes to such code. The NPRM further required that such source code repository would include an audit trail of material changes to source code that would allow AT Persons to determine, for each such material change: who made it; when they made it; and the coding purpose of the change. The NPRM also required that AT Persons maintain source code in accordance with § 1.31.

Several commenters expressed support for the proposal that source code should be a required record under Commission rules.[95] Better Markets called the source code provisions "the most important and effective provision in the proposed rule" and noted "the clear and many benefits arising from the Commission's ability to perform post-mortems after disruptive market events."[96] Better Markets pointed out that "it is crucial that regulators have access to HFT algorithm source code, rather than facing the impossible task of reconstructing manipulative algorithms from market data alone."[97] Another commenter stated that if an algorithm or source code has caused, or has the potential to cause, damage to the U.S. financial markets, regulators have not only a right, but a duty to inspect source code.[98] MFA supported a source code and audit trail record retention requirement, but objected to a source code "repository."[99] MFA stated that it understands the Commission's need "to be able to obtain and review confidential, proprietary material that trading firms and other businesses maintain. We also understand the need for a preservation requirement that will ensure that the source code and any audit trails that are relevant to a given investigation be preserved and be made

[95] AFR 3; Better Markets 2; Better Markets III 2-3; Shatto 1; Summers 1.
[96] Better Markets 2.
[97] Better Markets 2-3.
[98] Summers 1.
[99] MFA 3, 21.

available to the Commission . . . when appropriate."[100] MFA recommended that the Commission adopt a principles-based rule requiring that market participants adopt a mechanism to preserve source code, produce current and prior versions of such source code, and track material change to the source code.[101] AIMA commented that it is "supportive of an obligation for AT Persons to maintain internal source code repositories."[102]

Many commenters expressed concerns about the confidentiality of source code, and in particular making source code subject to § 1.31.[103] Several stated that source code should only be available pursuant to a subpoena,[104] which some described as a procedural safeguard.[105] Others, such as FIA and Mercatus, noted the potential impracticality of certain requirements of § 1.31 in the context of source code, such as duplicate storage, indexes of stored records, and the potential retention of a third-party technical consultant with access to the records.[106]

Numerous commenters described source code as valuable intellectual property and raised concerns about information security if source code were to be provided to regulators.[107] Some raised the possibility that source code stored on government servers or government-mandated repositories could be vulnerable to cyberattack and other

[100] MFA 21.
[101] MFA III 3.
[102] AIMA III 4.
[103] MFA 29; ISDA 6; NASDAQ 2; Two Sigma 4; CCMR 5; FIA A-49, 54; Mercatus 6.
[104] AIMA 10-11; AIMA III 5; Barnard 2; Citadel 2; FIA A-48; Hudson Trading 3; KCG III 4-5; ICE 7; ICE III 4; ISDA 6; MFA 23; MFA III 3; MGEX 24-25; MMI 5; Commercial Alliance 12; QIM 5; TraderServe 1; TT 7; Two Sigma 4-5.
[105] Industry Group 6.
[106] FIA A-54; Mercatus 6.
[107] Hudson Trading 1-2; IAA 10; ICE 7; ISDA 6; ITI 2, 4; MMI 3; Commercial Alliance 12; Nadex 7; Two Sigma 2; Virtu 3; TT 4, 3 n.2; QIM 2.

system breaches or misappropriation.[108] Some commenters took the position that making source code subject to § 1.31 would violate Constitutional protections.[109]

Several commenters questioned the scope of the records to be retained as source code.[110] MMI stated that "source code" should be defined to avoid confusion.[111] FIA stated that "it is not clear under § 1.81(a)(vi) whether the referenced source code refers to Algorithmic Trading code only, or includes the code of 'related systems' or separate 'software' as well."[112] One commenter even speculated that the rule might be broad enough to require Microsoft to permit inspection of the code underlying its Excel program if a trader developed an algorithm using an Excel spreadsheet.[113]

Several commenters and Roundtable participants noted that a review of source code alone without additional context would be insufficient to identify the cause of a trading discrepancy.[114] Several commenters also posited that source code would be unintelligible to regulators,[115] or that the CFTC lacked the resources to understand it.[116] Several participants at the Roundtable suggested that it may be necessary to review log files in order to gain further context regarding trading activity under review.[117]

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[108] LCHF 3; Mercatus 6; MFA 22, 24, 25; CTC 9-10; IAA 10; CCMR 4-5; MMI 3-4; MMI III 2;Commercial Alliance 12; Chamber of Commerce III 2, 4-5; NIBA 2; QIM 5; TT 4; Two Sigma 2, 3, 6; Mercatus 6; AIMA 10; FIA A-52; Bloomberg 2-3; Citadel 2; SIFMA 16.
[109] ITI 2; FIA A-46; MMI 4; MMI III 1-2; TT 4.
[110] FIA A-47; MMI 2; TT 3-4.
[111] MMI 2.
[112] FIA A-47.
[113] TT 4.
[114] ITI 6; MMI 2; TT 5.
[115] Hudson Trading 1-2; MMI 2; TraderServe 2; ITI 6; MMI 2; TT 5-6.
[116] ITI 5; Weaver 2.
[117] KCG Holdings II, Roundtable Tr. 263:2-13 (one of the first items to look at when addressing a trading discrepancy would be "log files to see was it a data issue, incoming data issue, was it something that was part of the algorithm, was it a control that misfired. You'd look at the log data to see if there's anything in there that would start to point you in a direction of where the issue might become. At that point in time you might bring in a developer to help walk through the code."); TT II, Roundtable Tr. 264:9-11 (noting that a developer would "probably comb through log files" to narrow down where a discrepancy occurred).

Participants indicated that a review of log files might assist in identifying a trigger for specific trading behavior such as market data, a change in parameters, or a component of source code.[118]

C. Substance of New Proposal

Through this Supplemental NPRM, the Commission is proposing to replace NPRM § 1.81(a)(1)(vi) with Supplemental proposed § 1.84, entitled "Maintenance of records of Algorithmic Trading Source Code and related records."[119] Supplemental proposed § 1.84 requires AT Persons to retain three categories of records for a period of five years: (1) Algorithmic Trading Source Code; (2) records that track changes to Algorithmic Trading Source Code; and (3) log files that record the activity of the AT Person's Algorithmic Trading system.[120] These records would be required to be maintained in their native format. Supplemental proposed § 1.84 does not require that records be generated; rather, it only requires the retention of such records to the extent

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[118] Optiver II , Roundtable Tr. 267:18-268:21 (describing "looking in the log file . . . to figure out . . . the trigger for . . . [an] order," including whether it was "human interaction, . . . market data, a "change in parameters," or "source code.").

[119] The Commission notes that in addition to proposing new § 1.84 (addressing Algorithmic Trading Source Code) and § 1.85 (addressing use of third party systems or components), it has made several changes to proposed § 1.81. The Supplemental NPRM withdraws §§ 1.81(a)(1)(v) and (vi). Provisions relating to documenting the strategy and design of Algorithmic Trading software and maintenance of Algorithmic Trading Source Code are now contained in Supplemental proposed §§ 1.84 and 1.85.

In addition, NPRM proposed § 1.81(a)(1)(ii) required testing of all Algorithmic Trading code and any changes to such systems. This language has been modified so that it is consistent with the Commission's intent that the AT Person be required to test systems, not merely the source code related to such systems. The changes to the second sentence, resulting in the language in Supplemental proposed § 1.81(a)(1)(ii) that such testing shall be reasonably designed to effectively identify circumstances that may contribute to future Algorithmic Trading Events, are intended to improve clarity. The Commission deleted the provision's final sentence, "Such testing must be conducted both internally within the AT Person and on each designated contract market on which Algorithmic Trading will occur." The Commission has also withdrawn corresponding NPRM proposed § 40.21, which had required DCMs to provide test environments to AT Persons. Supplemental proposed § 1.81(a)(1)(ii) now provides discretion to the AT Person as to where testing should occur.

[120] Commenters at the Roundtable recognized that in order to assess a trading discrepancy they would need to review their own log files and potentially the source code for their trading algorithms. KCG II, Roundtable Tr. 262:17-263:10; 267:18-268:21; TT II, Roundtable Tr. 264:3-20.

they are generated by an AT Person (or by a third-party on behalf of the AT Person) in the ordinary course of their business. It also requires that these records be kept in a form and manner that ensures the authenticity and reliability of the information contained in the records, and that AT Persons have systems available to promptly retrieve and display the records.[121]

Algorithmic Trading Source Code is defined broadly in Supplemental proposed § 1.3(ccccc), and is intended to capture the various types of code and related components used in connection with Algorithmic Trading. It includes computer code, hardware description language, scripts and formulas, as well as the configuration files and parameters used to carry out the trading.[122] The term Algorithmic Trading Source Code should be construed broadly to encompass field-programmable gate array ("FPGA") technology including the logic built onto chips or embedded in electronic circuits. Logic embedded in electronic circuits is sometimes referred to as "hardware description language ("HDL"). On the other hand, Algorithmic Trading Source Code does not include the underlying code to a program used to develop a formula or algorithm (i.e., Microsoft Excel).

The Commission recognizes the confidentiality and value of Algorithmic Trading Source Code. Accordingly, the Commission has endeavored in this Supplemental NPRM to enhance the procedural protections afforded to Algorithmic Trading Source Code in

[121] The Commission notes that Supplemental proposed § 1.84's requirement that records be maintained in their "native format" is distinct from the proposed requirement that such records be maintained in a manner that ensures the "authenticity and reliability" of information contained in such records. The retention of a record in "native format" equates to a requirement that such record be retained in the same format as it was originally created. Authenticity and reliability, in contrast, address the accuracy of a record as genuine, unchanged iteration of the original.

[122] Parameters include settings or variables that are relied on by an algorithm to make determinations in a system's Algorithmic Trading. For example, parameters may include settings or variables impacting order type, order quantity, order price, order side, position size, number of orders, and duration of orders.

the rule text and to expressly reference the statutory and regulatory provisions that protect all confidential information to which the Commission has access. As a threshold matter, the Commission emphasizes that Supplemental proposed § 1.84 makes Algorithmic Trading Source Code, change logs, and log files subject to recordkeeping requirements that are separate from the general recordkeeping provisions under § 1.31 of the Commission's rules. Supplemental proposed § 1.84 also makes clear that these records are subject to section 8(a) of the Act.[123] Section 8(a) prohibits the release of data or information that would disclose business transactions or market positions of any person and trade secrets or names of customers, and any data or information concerning or obtained in connection with any pending investigation of any person. Separately, confidential information received by Commission employees is also subject to § 140.735-5 of the Commission's rules, which prohibits a Commission employee or former employee from disclosing, or causing or allowing to be disclosed, confidential or non-public commercial, economic or official information to any unauthorized person.[124] The Commission also notes that Section 1905 of Title 18 specifically prohibits the disclosure of confidential information, including trade secrets, by all officers or employees of the United States and any department or agency thereof, including the CFTC. Violations of this statutory provision carry significant penalties, including fines, loss of employment, and imprisonment.[125] Commission staff are annually trained on the prohibitions against

[123] Section 8(a) of the Act, 7 U.S.C. 12(a).
[124] 17 CFR 140.735-5.
[125] See 18 U.S.C 1905, which provides that whoever, being an officer or employee of the United States or of any department or agency thereof, publishes, divulges, discloses, or makes known in any manner or to any extent not authorized by law any information coming to him in the course of his employment or official duties or by reason of any examination or investigation made by, or return, report or record made to or filed with, such department or agency or officer or employee thereof, which information concerns or relates to the trade secrets, processes, operations, style of work, or apparatus, or to the identity, confidential statistical

disclosing confidential or non-public commercial, economic or official information, and specifically are provided with post-employment guidance regarding these prohibitions, in addition to other applicable ethics restrictions, prior to their departure from the Commission.

Supplemental proposed § 1.84 sets out a procedure for requests for production or inspection of these records that requires Commission approval by means of a special call for the records. The Commission would also retain its existing authority to seek access to such records through a subpoena, which would typically be used in an enforcement matter. If the Commission approves a special call, it may authorize the Director of the Division of Market Oversight to execute the special call, and may also authorize the Director to specify the form and manner in which the required records must be produced. The Commission notes that Supplemental proposed § 1.84 does not alter any aspect of part 11 of the Commission's rules relating to investigations. For clarity, Supplemental proposed § 1.84 provides that the records required by the section must also be available by subpoena issued pursuant to part 11 of the Commission's regulations.

Supplemental proposed § 1.84(a)(2) requires that AT Persons retain records tracking material changes to Algorithmic Trading Source Code, including a record of when and by whom such changes were made, when such records are generated in the ordinary course of business. The Commission notes that this new proposed rule does not

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data, amount or source of any income, profits, losses, or expenditures of any person, firm, partnership, corporation, or association; or permits any income return or copy thereof or any book containing any abstract or particulars thereof to be seen or examined by any person except as provided by law; shall be fined under Title 18 of the United States Code, or imprisoned not more than one year, or both; and shall be removed from office or employment.

require that such records be generated, but does require that they be maintained if they are generated in the ordinary course of business.

Supplemental proposed § 1.84(a)(3) requires that AT Persons retain any logs or log files generated by the AT Person in the ordinary course of business that record the activity of the AT Person's ATS, including a chronological record of such system's actions. As noted above, this provision was added to address the concerns of some commenters that source code alone is insufficient to review trading activity of an AT Person, and the suggestion that log files may provide important context to a review of source code. The new proposal does not mandate the retention of specific log files or even the form or specific content of log files. The new proposal simply requires that log files be retained to the extent such files are generated in the ordinary course of business. The Commission recognizes that various exchanges require persons with direct access to maintain audit trails with detailed information about trading activity.[126] The Commission expects that log files will contain a similar level of detail and in some cases a greater level of detail than the electronic audit trails required by these exchanges. To the extent log files are generated, they must be maintained in a form and manner that ensures the authenticity and reliability of the information contained in the records. In addition, AT Persons must have systems available to promptly retrieve and display these records to the Commission in the event of a special call.

D. Commission Questions

[126] For example, ICE Futures U.S. Rule 27.12A requires certain clearing members and direct access members to maintain electronic audit trials of electronic orders submitted through direct access connections. CME Rule 536.B.2. also requires an electronic audit trail for systems accessing the CME Globex platform through the CME iLink gateway. Both CME and ICE require the retention of these electronic audit trails for five years.

15. Please comment on whether, through Supplemental proposed § 1.84, the Commission has appropriately balanced its responsibility to oversee markets and market participants with the privacy and confidentiality concerns that market participants have raised with respect to access to Algorithmic Trading Source Code.

16. Please comment on the Commission's determination to obtain access to Algorithmic Trading Source Code via special call, rather than have such access be governed by § 1.31.

17. Is the definition of "Algorithmic Trading Source Code" sufficiently clear to allow AT Persons to comply with the recordkeeping requirements in Supplemental proposed § 1.84? Which, if any, components of Algorithmic Trading systems should be added to the definition of Algorithmic Trading Source Code? Which, if any, should be excluded?

18. Are log files described in sufficient detail in the Supplemental NPRM? Please explain why or why not.

19. The NPRM's Question 131 (NPRM at 78913) sought comment on NPRM proposed § 1.81(a)'s standards for the development and testing of Algorithmic Trading systems and procedures, including requirements for AT Persons to test all Algorithmic Trading code and related systems and any changes to such code and systems prior to their implementation. The Commission renews that question here as to Supplemental proposed § 1.84(a). Are any of the requirements of Supplemental proposed § 1.84(a) not already followed by the majority of market participants that would be subject to § 1.84(a) (or some particular segment of market participants), and if so, how much will it cost for a market participant to comply with such requirement(s).

20. If a firm uses FPGA or a similar technology, how would it record the design of the programming?

21. How do firms store or record configurations and parameters that impact their trading system? For example, are these components stored or recorded in their Algorithmic Trading Source Code or log files?

22. If a firm uses a chip or FPGA as a part of its ATS, how does it describe the records?

V. Testing, Monitoring and Recordkeeping Requirements in the Context of Third-Party Providers

A. Overview and Policy Rationale for New Proposal

Regulation AT, as proposed in the NPRM, required AT Persons to comply with a number of standards regarding pre-trade risk controls and other measures; the development, testing and supervision of ATSs; and the retention and potential production of source code. In order to be effective, Regulation AT should be uniformly applied across the breadth of business arrangements that AT Persons may elect to pursue. As detailed below, commenters to the NPRM's proposed rules noted that AT Persons whose ATSs are sourced in whole or in part from third parties face challenges in complying with certain elements of NPRM proposed §§ 1.80 and 1.81. The Commission has considered these comments and is sensitive to the concerns raised. However, the use of third-party systems should not exempt market participants from compliance with regulatory standards designed to increase the safety and soundness of Algorithmic Trading. The rules set forth in Supplemental proposed § 1.85 seek to strike an appropriate balance by permitting AT Persons to comply with certain elements of §§ 1.81 and 1.84 through a

combination of certifications from their service providers, due diligence by the AT Persons and, in most cases,[127] a retention of legal responsibility for compliance with the rules by the AT Person.[128]

B. NPRM Proposal and Comments

NPRM proposed § 1.81(a) required AT Persons to implement written policies and procedures for the development and testing of ATSs. Among other things, such policies and procedures must at a minimum include documenting the strategy and design of proprietary Algorithmic Trading software, as well as any changes to software that are implemented in a production environment, pursuant to NPRM proposed § 1.81(a)(v). NPRM proposed § 1.81(a)(vi) required an AT Person to maintain a source code repository, which included an audit trail of material changes to source code that would allow AT Persons to determine, for each such material change: who made it; when they made it; and the coding purpose of the change. The source code was also required to be maintained in accordance with § 1.31.

Comments received. Several commenters noted that AT Persons using third-party systems licensed or purchased from vendors or DCMs do not have access to the systems' algorithmic code, and therefore would be unable to comply with the source code

[127] As discussed below, Supplemental proposed § 1.85(d) requires that an AT Person is responsible for ensuring that records are retained and produced as required pursuant to Supplemental proposed § 1.84. A certification and due diligence alone will not satisfy an AT Person's obligation to ensure that Algorithmic Trading Source Code is retained as required by Supplemental proposed § 1.84.

[128] In the context of the Securities and Exchange Commission's ("SEC") Market Access Rule, 75 FR 69792 (Nov. 15, 2010), the SEC allows a broker-dealer relying on third-party technology or software to perform appropriate due diligence to assure that its controls and procedures are consistent with the rule. See SEC, Responses to Frequently Asked Questions Concerning Risk Management Controls for Brokers and Dealers with Market Access (Apr. 15, 2014) (Question 14), available at https://www.sec.gov/divisions/marketreg/faq-15c-5-risk-management-controls-bd.htm.

provisions.[129] IAA identified this as an issue for registered CPOs and CTAs using an ISV's or other third-party's system,[130] SIFMA identified it as an issue for asset managers,[131] and AIMA identified it as an issue for buy-side participants. AIMA stated that requiring access and disclosure of third-party code, particularly best-execution algorithms, as provided in the NPRM, would cause third parties to stop providing software services to AT Persons.[132] The Commercial Alliance also confirmed that the vast majority of its members use third-party source code provided by ISVs or DCMs.[133] TT commented that the testing requirements under NPRM proposed § 1.81(a) should focus on the output of an ATS or software, rather than the underlying source code.[134]

At the Roundtable, Commission staff asked for industry comment regarding how such issues involving third-party providers should be addressed. Generally, industry participants stated that AT Persons lacked access to source code of third parties.[135] Tethys commented that AT Persons exhibit a range of control over source code;[136] while some AT Persons may write their own code, others use off-the-shelf third-party software, and others may add additional controls to third-party software as necessary.[137] TT stated that as a third-party provider, it did not provide its customers with access to its source code.[138]

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[129] FIA A-53; ISDA 5; CME 38; AIMA 11; AIMA III 5-6; IAA 11; Commercial Alliance 12; SIFMA 15; TT III 2.
[130] IAA 11.
[131] SIFMA 15.
[132] AIMA 11.
[133] Commercial Alliance 12.
[134] TT III 1.
[135] Tethys II, Roundtable Tr. 236:2-14; TT II, Roundtable Tr. 216:22-217:1-3, 250:9-13; ABN AMRO, Roundtable Tr. 249:4-10.
[136] Tethys II, Roundtable Tr. 236:2-14.
[137] Tethys II, Roundtable Tr. 236:2-14.
[138] TT II, Roundtable Tr. 216:22-217:1-3.

Commission staff also asked for comment at the Roundtable on a potential approach where AT Persons would obtain certifications from third parties regarding development requirements and would conduct due diligence. TT said that because it provides customers with the opportunities to test algorithms built using its software,[139] it would be unnecessary and burdensome to require AT Persons to obtain certifications from third-party providers.[140] AQR, Tethys, and TT argued that it would be difficult to fairly impose a certification requirement.[141] ABN AMRO and Tethys commented that AT Persons may not have the necessary expertise to perform extensive due diligence regarding software code.[142] ABN AMRO said that customers would not want to have access to source code.[143] In addition, TT stated that the Commission can understand how technology functions without seeing source code.[144]

C. Substance of New Proposal

The NPRM comments discussed above cite potential compliance challenges when AT Persons obtain their ATSs, in whole or in part, from third-party providers. Accordingly, this Supplemental NPRM proposes an alternative framework for AT Persons to comply with their obligations related to the development and testing of ATSs, and for the retention and production of Algorithmic Trading Source Code and related records.

Specifically, Supplemental proposed § 1.85 allows AT Persons who, due solely to their use of third-party system or components, are unable to comply with a particular

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[139] TT II, Roundtable Tr. 237:17-238:6.
[140] TT II, Roundtable Tr. 238:7-239:3.
[141] AQR, Roundtable Tr. 240: 15-2, 242:17-243:19; Tethys II, Roundtable Tr. 240:4-14; TT II, Roundtable Tr. 239:4-15.
[142] ABN AMRO, Roundtable Tr. 245:12-246:14; Tethys II, Roundtable Tr. 247:18-249:3.
[143] ABN AMRO, Roundtable Tr. 249:4-10.
[144] See TT II, Roundtable Tr. 250:14-252:7; TT III 2-3.

development or testing requirement (NPRM proposed §§ 1.81(a)(1)(i), 1.81(a)(1)(iii), 1.81(a)(1)(iv), 1.81(a)(2), or Supplemental proposed §§ 1.81(a)(1)(ii) or 1.84)[145] or a particular maintenance or production requirement related to Algorithmic Trading Source Code and related records (Supplemental proposed § 1.84), to comply with such proposed regulatory obligations by satisfying two requirements: (i) obtaining a certification that the third party is complying with the obligation; and (ii) conducting due diligence regarding the accuracy of the certification.[146] While obtaining such certifications and conducting due diligence as to their accuracy may still be challenging for some AT Persons, the Commission has determined that such requirements, at this stage, appear more practical compared to the NPRM's proposal that AT Persons themselves comply with all NPRM § 1.81 requirements. The Commission believes that the certification and due diligence requirements present a workable alternative that will ensure that all AT Persons – regardless of whether they develop their own ATSs, or use the systems of a third party – are subject to the same standards.

Supplemental proposed § 1.85(d) requires that, in all cases, an AT Person is responsible for ensuring that records are retained and produced as required pursuant to

[145] These subsections were also proposed in the NPRM, although this Supplemental NPRM proposes several changes to the text of § 1.81(a)(1)(ii).

[146] The Supplemental NPRM provides flexibility and does not set forth the means by which due diligence must be conducted. The Commission expects that due diligence may take a variety of forms, all of which can potentially be effective in helping AT Persons fulfill their regulatory obligations pursuant to Supplemental proposed § 1.85. Due diligence may include, for example, a combination of (1) information gathering, including with respect to prevailing best practices and a third party's own practices; (2) on-site inspection; (3) communications between the AT Person and its third-party provider, including in writing, in person, via email, and telephone or video; and (4) review and evaluation of files, documents, and other information gathered. The Commission offers this list by way of example only, and notes that each AT Person should arrive at its own determination regarding an appropriate due diligence process. The Commission encourages each AT Person making use of Supplemental proposed § 1.85 to perform such diligence as is necessary for the AT Person to have comfort that the underlying substantive regulatory requirements are being met.

Supplemental proposed § 1.84.[147] In other words, an AT Person's certification and due diligence will establish that it has complied with testing obligations pursuant to NPRM proposed §§ 1.81(a)(1)(i), 1.81(a)(1)(iii), 1.81(a)(1)(iv), 1.81(a)(2), or Supplemental proposed § 1.81(a)(1)(ii), but certification and due diligence alone will not satisfy an AT Person's obligation to ensure that Algorithmic Trading Source Code is retained and produced as required by Supplemental proposed § 1.84. Even where an AT Person obtains a certification and conducts due diligence with respect to a third party's obligations, the AT Person will remain responsible for ensuring that Algorithmic Trading Source Code retention and production requirements are met. For example, if the Commission were to issue a special call or a subpoena to an AT Person for the production of Algorithmic Trading Source Code maintained by a third party, the AT Person would be responsible for complying with the Commission request, regardless of the certification or the due diligence performed by the AT Person. Such compliance could be achieved by making sure that the third party produced the required records, but a failure by the third party to produce such records would not relieve the AT Person of its own obligations.

Pursuant to the Commission's Supplemental proposal, AT Persons may not rely on § 1.85 for any element of §§ 1.81(a)(1) and 1.84 with which they have the ability to comply. For example, an AT Person who uses a combination of third-party and internally developed ATS components would be expected to comply with NPRM proposed §§ 1.81(a)(1)(i), 1.81(a)(1)(iii), 1.81(a)(1)(iv), 1.81(a)(2), and Supplemental proposed §§ 1.81(a)(1)(ii) and 1.84 for all such components that the AT Person itself develops or modifies. The Commission also notes that Supplemental proposed § 1.85

[147] The proposed rules do not require that the certifications be filed with the Commission. However, the certifications would be subject to § 1.31 recordkeeping requirements.

provides an alternative means of compliance in circumstances where the use of a third-party system or component is the sole reason why an AT Person cannot otherwise comply with its obligations. Although an AT Person may be motivated to make use of Supplemental proposed § 1.85 for reasons of potential costs or administrative ease, such considerations are not permissible rationales for use of Supplemental proposed § 1.85.

In many cases, the Commission expects that AT Persons and third parties will each have developed different portions of an ATS. If an AT Person develops an algorithm using third-party software, the AT Person would remain responsible for development and testing requirements with respect to the algorithm, and for the retention and production of Algorithmic Trading Source Code and related records requirements for that algorithm. Further, whether a third-party certification is appropriate under Supplemental proposed § 1.85 may depend on the amount of control the AT Person has over the development of algorithms it employs. If the AT Person, for example, has a limited ability to affect or modify an algorithm, then the Commission expects that the AT Person would comply with NPRM proposed §§ 1.81(a)(1)(i), 1.81(a)(1)(iii), 1.81(a)(1)(iv), 1.81(a)(2), and Supplemental proposed §§ 1.81(a)(1)(ii) and 1.84 by obtaining a certification and conducting due diligence pursuant to Supplemental proposed § 1.85. However, the Commission notes that as to Supplemental proposed § 1.84 requirements, the AT Person remains responsible for compliance with Algorithmic Trading Source Code retention and production requirements are met.

The Commission expects that the certifications required by Supplemental proposed § 1.85 would, at a minimum, list the specific regulatory obligations that the third party is certifying compliance with, describe the component of the ATS at issue (or

the whole system, if applicable), and explain how such component or system complies with the regulatory obligation. The Commission recognizes that some system components may be standard products offered to multiple customer trading firms, and others may be custom-designed for one customer trading firm. With respect to standard products, the third party's certification may take the same form for multiple customers.

Supplemental proposed § 1.85(b) requires that the AT Person must obtain a certification each time there has been a material change to such third-party provided systems or components. Accordingly, there is no specific periodic deadline for certification; rather, the third party must only re-certify when there has been a material change. The Commission intends that the due diligence requirement imposed by Supplemental proposed § 1.85(c) includes an obligation on AT Persons to determine whether a material change to third-party provided systems or components has occurred.

The Commission understands that AT Persons who use third-party system components or Algorithmic Trading Source Code may not have the same level of development and testing expertise as third-party providers who routinely develop such systems or code. Accordingly, the due diligence required to be performed by the AT Person under Supplemental proposed § 1.85(c) is limited to the accuracy of the certification. Due diligence may require the involvement of technology support staff from the AT Person, but detailed technical audits are not required on behalf of the AT Person with respect to Supplemental proposed § 1.85(c).

D. Commission Questions

23. The Commission invites comment on all aspects of Supplemental proposed § 1.85.

24. Should the requirements for AT Persons who develop their own systems and code differ from requirements imposed on AT Persons that use systems or components provided by a third party? If so, how should the requirements be different, while continuing to ensure a consistent baseline of effectiveness in the development and testing of ATSs?

25. What specific steps should AT Persons take when conducting due diligence of the accuracy of a certification from a third party, as required by Supplemental proposed § 1.85? Should proposed § 1.85(c) provide greater detail with respect to such due diligence? For example, should due diligence be required to specifically include review of technical design information, testing protocols and test results, documented dialogue between staff of the AT Person and the third party, or other measures?

26. Supplemental proposed § 1.85(b) requires that the AT Person must obtain a certification each time there has been a material change to third-party provided systems or components. What is a reasonable estimate as to the average frequency of such material changes? Should the Commission base the certification requirement on another timing metric?

VI. Changes to Overall Risk Control Framework

A. Change from Three Level to Two Level Risk Control Framework

1. Overview and Policy Rationale for Proposal

In the NPRM, the Commission sought to take a principles-based approach to addressing the potential risks associated with Algorithmic Trading.[148] NPRM proposed

[148] See NPRM at 78837-78839.

§§ 1.80, 1.82, 38.255 and 40.20 imposed pre-trade risk control and other requirements, such as order cancellation systems, at three points in the order submission and execution chain: AT Persons, FCMs and DCMs. The NPRM approach proposed to allow the relevant entity—AT Person, FCM, or DCM—discretion in the design and parameters of such controls. In general, while some commenters supported the multi-layered approach described above, numerous commenters viewed the framework as unnecessarily redundant and prescriptive. Accordingly, the Commission in this Supplemental NPRM proposes a risk control framework with controls at two, rather than three, levels: (i) AT Person or FCM; and (ii) DCM. The Commission believes that this structure still achieves the goal of protecting market integrity, while simultaneously reducing the complexity of the risk controls and overall costs of compliance.

By requiring two levels of risk controls, mistakes or omissions made at one level will have a backstop, potentially mitigating the possibility of a trading disruption. Because the unexpected or disruptive behavior of an algorithm would affect other market participants at the DCM level, thus leading to potential system risk, the Commission is requiring DCM controls for all electronic orders, regardless of source. The second set of controls may be implemented at either the AT Person or the FCM level, depending on whether an order is originated by AT Person or non-AT Person market participant. In addition, under specific circumstances, AT Persons will have discretion to delegate certain of their pre-trade risk control functions to an FCM, if they so choose. The Supplemental proposed rules continue to provide discretion in how entities design and calibrate the controls. Further, as discussed below, the Commission has revised the rules

to allow greater flexibility for AT Persons, FCMs and DCMs to determine the level of granularity at which controls are set.

2. NPRM Proposal and Comments

As discussed above, NPRM proposed §§ 1.80, 1.82, 38.255 and 40.20 imposed risk control and similar requirements, such as order cancellation systems, at three levels: the AT Person, FCM and DCM.

Comments Received. The Commission received numerous comments on the proposed risk control structure during the Initial Comment Period, the Second Comment Period, and at the Roundtable. As discussed in more detail below, some commenters during the Second Comment Period and at the Roundtable suggested a two-level structure instead of the three level structure proposed in the NPRM. For example, the Industry Group suggested a framework in which responsibility for implementing appropriate pre-trade risk controls lies either (i) with the FCM registrant that is facilitating access to the DCM, or (ii) in the case of a market participant that is not trading through the risk controls of an FCM, with that participant. Industry Group further stated that in both cases, the pre-trade risk controls must be supplemented by DCM-provided risk controls configured by the member of the DCO that grants access to the DCM.[149] CME suggested a similar approach, commenting that: "Two layers of market risk controls would apply to all Algorithmic Trading orders. The first layer would be administered by either an AT Person or the gatekeeper clearing member, and could be developed internally or obtained from an independent third-party source (such as the DCM or a software provider). The

[149] Industry Group 8.

second layer would be developed and administered by the DCM."[150] The framework proposed in this Supplemental NPRM involves a similar two-level approach, which is intended to address the complexity and cost concerns expressed by Industry Group, CME and other commenters.

Further, some commenters supported expanding risk controls requirements to all electronic orders, rather than applying controls to only algorithmic trading orders. For example, the Industry Group stated that "all electronic trading must be subject to pre-trade and other risk controls administered by a CFTC registrant that are appropriate to the nature of the activity."[151] ICE stated that "all market participants that engage in electronic trading on a DCM should maintain . . . risk controls, regardless of how market participants access a DCM or whether the market participants engage in algorithmic trading."[152] The Commission has addressed such comments by expanding the scope of the risk control requirements to include Electronic Trading. Further detail on the addition of Electronic Trading to Regulation AT's risk control framework is discussed below in Section VI(B), and discussion of the relevant new definitions related to such changes is provided in Section VI(C).

Numerous commenters opposed the NPRM's proposed three-level approach to risk controls or otherwise characterized it as a "one size fits all" model. Specifically, FIA, CME, ICE, MFA, Nadex, NIBA, SIFMA and Mercatus indicated that the multiple layers of risk controls across the market – at the AT Person, clearing member FCM, and

[150] CME III 9-10.
[151] Industry Group 8.
[152] ICE III 2.

DCM levels – are too prescriptive, duplicative, costly and inefficient.[153] FIA, CME, OneChicago, LCHF and QIM commented that Regulation AT's required duplication of risk controls across the lifecycle of a trade actually introduces risk.[154] CME, MFA, SIFMA and NIBA characterized the proposed rules as a "one size fits all" model that doesn't appropriately take into account the different types of automated systems, business, or operational size of market participants.[155] FIA did not support requiring every market participant to implement its own risk controls; rather, such controls could be provided by FCMs or DCMs.[156]

In contrast, other commenters supported the multi-layered approach (either fully or with reservations that the approach could create some risks), or supported more centralized controls at the FCM and DCM levels. Specifically, IATP supported a multi-layered approach to risk controls and believed it will mitigate the risks of algorithmic trading.[157] In addition, AIMA supported the principle that risk controls are to be maintained at three levels – the exchange, the clearing member and the trading firm.[158] LCHF also recommended a three-level structure for risk controls.[159] Virtu generally supported a multi-layered approach to risk controls as well, but warned of potential risks if the multiple controls are applied or calibrated independently, since market participants may not be able to predict which orders will reach the order book and which may be

[153] FIA 5; CME 6, A-14; ICE 8; Mercatus 4-5; MFA 4-5; Nadex 3; SIFMA 20; NIBA 1.
[154] FIA 7, A-25; CME A-11; OneChicago 3; LCHF 2-3; QIM 2.
[155] CME A-11; MFA 2, 4; SIFMA 20; NIBA 1.
[156] FIA 4, A-24.
[157] IATP 7.
[158] AIMA 7.
[159] LCHF 2-3. LCHF recommended a structure with risk controls at (1) the trading participant level, requiring all the proposed § 1.80 controls, which should be adopted at the most granular level and tailored to the particular trading technology used by the market participant; (2) the FCM / broker level, requiring order size, position and margin controls; and (3) the DCM level, continuing the adoption of existing controls, such as kill switch or self-trade prevention, with no further risk filter imposed on market participants.

screened by a "downstream" risk layer.[160] Similarly, MFA and LCHF acknowledged that multiple risk filters across different entities may reduce the probability that a wrong message reaches the market, but stated that such redundancy may be inefficient or increase complexity and possible errors if the risk parameters are not coordinated properly.[161]

Several commenters supported centralizing controls at the DCM and FCM levels. AIMA stated that DCMs should play a central role in maintaining risk controls internally and through mandates upon their FCMs, and believed that DCMs and FCMs should have the principal obligations to protect the stability of DCM markets.[162] Similarly, MFA commented that the Commission should require centralized pre-trade risk controls at DCMs and clearing member FCMs, and that the proposed § 1.80 risk controls should be applied at the DCM level and the clearing member FCM level.[163] MFA indicated that this would ensure that all orders go through the same set of controls.[164] MFA further commented that the general infrastructure for such a centralized approach already exists, given that DCMs provide clearing FCMs with controls to manage risk with respect to clients, and that this structure would be more transparent and easier for regulators to oversee and enforce.[165]

During the Second Comment Period, the Commission received additional comments on the proposed risk control structure. The Industry Group proposed the following two-level structure. Rather than defining "AT Person," the Commission

[160] Virtu 2.
[161] MFA 5-6; LCHF 2-3.
[162] AIMA 2, 7, 12.
[163] MFA 2, 5-6, 10.
[164] MFA 2, 5-6, 10.
[165] MFA 2, 5-6, 10.

should require pre-trade risk controls on all electronic orders. Orders from market participants leveraging FCM-administered systems, including those provided by third parties, may use pre-trade risk controls administered by the FCM.[166] Market participants not using FCM-administered risk controls must apply risk controls to their own orders.[167] In both cases, the pre-trade risk controls must be supplemented by DCM-provided risk controls configured by the member of the DCO that grants access to the DCM.[168]

CME suggested a similar two-layer approach for all Algorithmic Trading orders, commenting that the first layer "would be administered by either an AT Person or the gatekeeper clearing member" and the second layer "would be developed and administered by the DCM."[169] MFA also commented that it supports risk controls at both the DCM and the FCM providing trading access.[170] MFA also supported "a regulatory framework where a market participant could choose to implement the Commission's required marketplace risk controls in lieu of going through an FCM's risk controls, and be subject to Commission oversight."[171]

AIMA commented that the principal role in application of risk controls should be played by the DCMs—as the owners of the relevant markets—and FCMs—as the gatekeepers to the relevant markets.[172] AIMA stated that "both parties are best placed to understand and enforce the relevant controls and testing obligations."[173] Sutherland commented that as an alternative to the NPRM's proposed framework, DCMs under Part

[166] Industry Group 4-5.
[167] Industry Group 5.
[168] Industry Group 8.
[169] CME III 9-10.
[170] MFA III 2.
[171] MFA III 2.
[172] AIMA III 4.
[173] Id.

38 core principles should establish and oversee pre-trade risk and other control requirements applicable to AT Persons. Sutherland stated that DCMs have the expertise and are best positioned to implement and enforce the use of controls to mitigate risks on their markets.[174] Hartree also emphasized the importance of DCMs in implementing risk controls, stating that "DCMs are very well suited to not only police these markets, but also to . . . administer CFTC's rules and regulations as SROs."[175] Hartree suggested a framework in which AT Persons are divided into three categories based on the risk they pose to the market: Category 1 Risk (very little risk, including persons who do not use DEA or who use FCMs to access the DCM); Category 2 Risk (some increased risk, including persons who use DEA and algorithmic trading); and Category 3 Risk (enhanced risk, including persons who can cause significant market disruption, e.g., a flash crash).[176] Third parties such as the FCM and DCM would administer risk controls for Category 1. The trading firm itself and DCM would administer risk controls for Category 2. Enhanced risk controls would apply to Category 3.[177]

ICE commented that "all market participants that engage in electronic trading on a DCM should maintain . . . risk controls, regardless of how market participants access a DCM or whether the market participants engage in algorithmic trading."[178] ICE further stated that the Commission "should not mandate the same risk control requirements across DCMs, FCMs and AT Persons."[179] Similarly, another exchange, MGEX, commented that "DCMs, FCMs, and market participants should all have some level of

[174] Sutherland 7.
[175] Hartree 8.
[176] Id. at 6.
[177] Hartree 6-7.
[178] ICE III 2.
[179] Id.

responsibility over the development, deployment, and use of pre-trade risk controls. Each market participant needs to have pre-trade risk controls applied to electronically submitted orders, but how that is accomplished should depend on the circumstances."[180] MGEX stated that the Commission should take a principles-based approach to risk controls at the DCM, FCM, and market participant level.[181]

At the Roundtable, Commission staff asked for industry comment on a potential approach where three levels of risk controls remain but FCMs—not the Commission—impose pre-trade risk control and other requirements on their AT Person customers. Generally, industry participants disagreed with this approach. For example, industry participants expressed concern over cost and burden to FCMs.[182] In addition, Virtu and Hartree indicated that certain trading firms prefer to implement their own controls, rather than allow FCMs to continuously oversee whether trading firms have adequate controls on their order flow.[183] CME expressed the view that each and every market participant should be responsible for its order flow.[184] Hudson Trading suggested that such an approach had potential for an un-level playing field, with different FCMs applying different standards.[185]

Instead, industry participants were more supportive of a two-level approach to risk controls. Tethys described a "two factor" model with the first layer at the DCM and the second layer at the level of who has control of the order being submitted to the

[180] MGEX III 2.
[181] Id. at 5.
[182] JPMorgan, Roundtable Tr. 171:11-172:17; ABN AMRO, Roundtable Tr. 175:16-176:176:17; Deutsche Bank, Roundtable Tr. 193:10-14.
[183] Virtu II, Roundtable Tr. 177:1-13; Hartree, Roundtable Tr. 185:4-15.
[184] CME II, Roundtable Tr. 177:18-178:7.
[185] Hudson Trading, Roundtable Tr. 187:10-188:1.

DCM.[186] At the second layer, the entity with control of the order would be the clearing broker, the executing FCM, or a firm that connects directly to the DCM. Tethys indicated that this approach would reduce costs and the number of entities subject to the regulation.[187] Hudson Trading also expressed support for a potential two layer approach, with the DCM as one layer.[188] JPMorgan stated that "the two layers of control can be easily crystalized as the matching engine, and the wall around the matching engine that's run by the DCM, and those who implement the interface that's provided by the DCM."[189]

With respect to the risk control framework, commenters also addressed the levels at which the NPRM proposed rules required the controls to be set, and expressed particular concern that FCMs and DCMs would be unable to comply with NPRM proposed §§ 1.82, 38.255 and 40.20 at the levels of granularity required by those rules. As to NPRM proposed § 1.82, FIA indicated that the level of granularity which controls are set should be left to FCM discretion and that compliance with NPRM § 1.82, as proposed, would require FCMs to develop additional technology.[190]

As to NPRM proposed § 38.255, FIA, CBOE, CME, OneChicago and ICE disagreed with the proposal as to the levels at which DCMs must offer the controls to FCMs.[191] FIA indicated that DCMs do not have sufficient information to set controls at the market participant level.[192] In addition, FIA stated that DCM order size limits are set at the highest level of access and not by market participant or account number, and the higher level is meant as a "last back stop" to prevent unintentionally blocking orders

[186] Tethys, Roundtable Tr. 37:11-38:8.
[187] Tethys, id. at 38:1-40:7.
[188] Hudson Trading, id. at 189:8-190:5.
[189] JPMorgan, Roundtable Tr. 47:22:48:5.
[190] FIA A-36.
[191] Id. at A-38, 40; CBOE 3; OneChicago 4; ICE 9.
[192] FIA A-38.

already controlled at the market participant or FCM level.[193] CBOE believed that a DCM should set maximum controls at the clearing firm level and at the level of AT Person with DEA, rather than aggregating risk controls for AT Persons with DEA across multiple clearing firms.[194] CBOE indicated that its system allows clearing firms to set controls for customers, and that clearing firms are not responsible for an order for which another clearing firm is designated for that customer.[195] CBOE further indicated that requiring DCMs to build controls at a more granular level than clearing firm level and AT Person with DEA level would be difficult and cumbersome, because the DCM does not have a direct relationship with participants that do not have DEA.[196] CME stated that DCMs generally do not have the ability to provide risk controls to clearing FCMs that can be set at the AT Person, product, account number or designations, and one or more identifiers of natural persons associated with an AT Order Message.[197] OneChicago indicated that requiring risk controls for each different product would be a substantial burden and may increase the possibility of a disruption event.[198] ICE opposed NPRM proposed § 38.255 mandating the specific levels at which a DCM is required to offer risk controls.[199]

As to NPRM proposed § 40.20, FIA, CME, MGEX, CBOE and OneChicago opposed requiring DCM controls to be set at the AT Person or market participant level.[200] FIA stated that DCMs should not implement the NPRM proposed §§ 1.80 and 1.82 risk controls at the same level of granularity that is expected of market participants and

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[193] FIA A-40.
[194] CBOE 3.
[195] Id.
[196] Id.
[197] CME 19, A-32.
[198] OneChicago 4.
[199] ICE 9.
[200] FIA A-38; CME 18-19, A-32.; MGEX 7; CBOE 3; OneChicago 5.

FCMs.[201] Rather, FIA asserted that DCMs should implement controls that apply across all orders and that protect the overall quality of the market.[202] CME stated that the DCM's controls should be set at the "direct connect" or the particular market level.[203] CBOE indicated that requiring DCMs to build controls at levels more granular level than clearing firm and AT Person with DEA would be difficult and cumbersome, because the DCM does not have a direct relationship with participants that do not have DEA.[204] Similarly, OneChicago believed that DCMs should be able to establish controls at the FCM level, but also believed that DCMs must have discretion in terms of the level at which controls should be applied.[205]

3. Substance of New Proposal

In light of comments received during the comment periods, including at the Roundtable, the Commission has revised the overall framework for risk controls and other measures required pursuant to NPRM proposed §§ 1.80, 1.82, 38.255 and 40.20. This Supplemental NPRM proposes a framework with two, rather than three, levels of risk controls: (1) at the AT Person or FCM level, and (2) at the DCM level. With respect to algorithmic orders originating with AT Persons (i.e., AT Order Messages), the NPRM required all AT Persons to implement the risk controls and other measures required pursuant to § 1.80. By contrast, the Supplemental NPRM requires AT Persons to implement those risk controls, but would also permit AT Persons to delegate compliance with § 1.80(a) to FCMs, as discussed below. The Supplemental NPRM also requires that

[201] FIA A-43.
[202] Id.
[203] CME A-14.
[204] CBOE 3.
[205] OneChicago 5.

AT Persons implement pre-trade risk controls on their Electronic Trading Order Messages similar to those required by § 1.80(a).[206] In addition, pursuant to the Supplemental NPRM, FCMs are not required to implement risk controls on AT Order Messages that are subject to AT Person-administered controls. AT Order Messages and Electronic Trading Order Messages originating from AT Persons would instead be subject to a second level of risk controls at the DCM level pursuant to Supplemental proposed § 40.20.

Electronic orders originating with a non-AT Person are subject to risk controls implemented by executing FCMs pursuant to Supplemental proposed § 1.82. Those orders are subject to the second level of risk controls at the DCM level pursuant to Supplemental proposed § 40.20.

Prompted by some commenters' concern that a three-layer structure may be redundant, the Commission has determined to propose this two-layer structure. The Commission particularly took into account commenters' opinion that multiple controls, if applied or calibrated independently, may cause market participants to be unable to predict which orders will reach the order book, increasing rather than mitigating market risk. The Commission also carefully considered the Roundtable comments indicating support for a two-level approach.

The Commission believes that two levels of risk control are beneficial, both to provide a backstop to a malfunction or other failure at one level, and because different levels of the order submission chain often monitor different characteristics of the risk associated with an order. For instance, an FCM may be more capable of determining

[206] See Supplemental proposed § 1.80(g)(2) and (g)(3). AT Persons would also be permitted to delegate compliance with § 1.80(g) risk controls to their FCMs.

whether an individual order would breach the risk limits of the AT Person or the clearing firm guaranteeing a potential trade; in contrast, a DCM may be more likely to identify orders that could lead to price dislocations in a given product, or that would lead to market instabilities affecting all market participants. The Commission also recognizes that trading firms are in the best position to understand their own systems, technology, and trading strategies, and that they are best positioned to prevent and reduce the potential risk of certain types of risk. Accordingly, the Commission proposes that certain trading firms—i.e., AT Persons—implement their own pre-trade risk controls and other measures pursuant to Supplemental proposed § 1.80.[207]

The Commission has also revised the proposed risk control rules to provide greater flexibility regarding the level of granularity at which risk controls must be set. Previously, the controls proposed in NPRM §§ 1.80, 1.82, 38.255 and 40.20 were required to be set at the AT Person level, or other more granular levels the AT Person, FCM or DCM determined appropriate, including by product, account number or designation, or one or more identifiers of natural persons associated with an AT Order Message. In this Supplemental NPRM, the Commission intends to increase the flexibility and decrease the burden on AT Persons, FCMs and DCMs in terms of the level of granularity at which controls must be set. Specifically, Supplemental proposed §§ 1.80(a)(2) 1.82(a)(2), 38.255(b)(1)(ii) and (2), and 40.20(a)(2) now require controls to be set at a level or levels of granularity which shall include, as appropriate, the level of each firm, product, account number or designation, or one or more identifiers of the natural persons or the order strategy or ATS associated with an AT Order Message or

[207] Supplemental proposed § 1.80(d) and (g) permit AT Persons to delegate compliance with § 1.80(a) to FCMs.

Electronic Trading Order Message (new terms related to Electronic Trading are discussed in Section VI(C) below).[208] By "as appropriate," the Commission means such level or levels of granularity as are technologically feasible and reasonably effective at preventing and reducing the potential risk of an Electronic Trading disruption. The proposed rules do not require AT Persons, FCMs or DCMs reorganize their trading infrastructure or develop new technologies solely to ensure that controls are implemented at each of the potential levels enumerated in Supplemental proposed §§ 1.80(a)(2) 1.82(a)(2), 38.255(b)(1)(ii) and (2), and 40.20(a)(2). Rather, as implementation of controls at each such level becomes technologically feasible, AT Persons, FCMs and DCMs should update their practices to optimize the placement of their risk controls at the most effective level.

4. Commission Questions

27. Will two levels of risk controls sufficiently prevent and reduce the potential risks of algorithmic and electronic trading? If there is any element of the revised proposed risk control framework that is not feasible or will not sufficiently address the risks of algorithmic and electronic trading, please explain.

B. Electronic Trading at the AT Person, FCM, and DCM Levels

1. Overview and Policy Rationale for New Proposal

The Commission proposes to amend NPRM proposed §§ 1.80, 1.82, 38.255 and 40.20 so that the risk control and order cancellation provisions applicable to AT Persons,

[208] Supplemental proposed §§ 1.80(a)(2) 1.82(a)(2), 38.255(b)(1)(ii) and (2), and 40.20(a)(2) are amended from the NPRM proposal to incorporate "order strategy" or "ATS" as potential levels of granularity where risk controls may appropriately be set.

FCMs, and DCMs now apply to Electronic Trading,[209] rather than only to Algorithmic Trading. As a result, a larger number of orders would be subjected to two levels of risk controls, a change that addresses comments that all electronic trading, not only Algorithmic Trading, has the potential to cause market disruption.

2. NPRM Proposal and Comments

The NPRM proposed that AT Persons and FCMs must apply risk controls to AT Order Messages (see NPRM proposed §§ 1.80, 1.82, and 38.255). In addition, NPRM proposed § 40.20 required that DCMs "implement pre-trade and other risk controls reasonably designed to prevent an Algorithmic Trading Disruption" or similar disruption that results from manual or other non-algorithmic order entry, though the general focus of the risk controls was on AT Order Messages.

Comments Received. Several commenters suggested requiring that all electronic trading (not just Algorithmic Trading) be subject to risk controls. FIA, ICE, and MGEX all supported applying risk controls to all electronic trading, and indicated that DCMs are best suited to implement certain controls.[210] FIA stated that all electronic trading has the potential to disrupt markets and should be subject to pre-trade and other risk controls reasonably designed to mitigate market disruption, regardless of the registration status of the person or entity trading.[211] Similarly, ICE commented that there is potential for all persons trading electronically to impact a market, and all market participants have a responsibility to implement risk controls.[212] ICE commented that some algorithmic

[209] The proposed new defined term "Electronic Trading" is discussed in Section VI(C) below.
[210] FIA 4, 7, A-24; ICE 2, 5; MGEX 2, 6-7.
[211] FIA 4, 7, A-24.
[212] ICE 5.

traders submit orders across multiple clearing firms throughout a trading session.[213] Therefore, DCMs are better suited to administer certain risk controls – including order throttling and price collars – than trading firms and the FCM.[214]

Another exchange, MGEX, commented that all orders submitted electronically should be subject to pre-trade risk controls, regardless of how the order accesses the matching engine.[215] MGEX recommended that any order that is electronically submitted must go through pre-trade risk controls at some stage before it reaches the matching engine, and that some controls must, at a minimum, reside at the matching engine.[216] MGEX suggested that this would avoid the need for defined terms, better achieve the Commission's objective, and would provide the public with enhanced clarity.[217] MGEX further stated that market participants should develop their own controls where they use trading technology that has direct market access and the DCM-provided controls would not prevent or mitigate market disruption risk.[218]

Commenters further addressed this issue during the Second Comment Period. The Industry Group commented that "all electronic trading must be subject to pre-trade and other risk controls administered by a CFTC registrant that are appropriate to the nature of the activity."[219] The Industry Group suggested a framework in which the responsibility for implementing risk controls lies either with the FCM facilitating electronic access to the DCM, or with the market participant, if it is not trading through

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[213] Id.
[214] Id.
[215] MGEX 2, 6.
[216] Id. at 6.
[217] Id. at 2, 6-7.
[218] Id. at 12.
[219] Industry Group 8.

the risk controls of an FCM.[220] Similarly, ICE reiterated its position that all market participants that engage in electronic trading should maintain appropriate pre-trade and other risk controls, regardless of how they access the market or whether they engage in algorithmic trading. ICE further stated that limiting mandatory risk controls to AT Persons complicates the proposal and does not enhance oversight of algorithmic trading activity.[221] MGEX stated that "each market participant needs to have pre-trade risk controls applied to electronically submitted orders, but how that is accomplished should depend on the circumstances."[222]

Finally, CME commented on the NPRM's proposed standards regarding whether AT Persons, FCMs and DCMs must "prevent" or must "mitigate" an Algorithmic Trading Disruption or similar disruption are inconsistent. CME stated that the preamble indicates that risk controls only need to "mitigate" risk, while the rule text requires that AT Persons and DCMs both mitigate and "prevent" risk.[223] Further, proposed § 1.82 provides that clearing member FCM controls must "prevent or mitigate" an Algorithmic Trading Disruption.[224] CME stated that Regulation AT should only require AT Persons, clearing FCMs and DCMs to mitigate, not prevent, disruptions arising from algorithmic trading.[225] CME further stated that it is impossible to prevent every possible disruption caused by algorithmic trading, and therefore the standard should be mitigation, not prevention.[226]

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[220] Id.
[221] ICE 2 III.
[222] MGEX 2 III.
[223] CME 4-5, 22-26.
[224] Id. at 24-25.
[225] Id. at 23, 26.
[226] Id. at 23; CME III 3.

3. Substance of New Proposal

In light of the above comments supporting the implementation of risk controls on all electronic orders, the Commission has amended the requirements of NPRM proposed §§ 1.80, 1.82, 38.255 and 40.20. Pursuant to the Supplemental proposed rules, AT Persons' risk control obligations would be expanded to include not only Algorithmic Trading, but also Electronic Trading (in Supplemental proposed § 1.80(g)). In the case of FCMs and DCMs, however, the Supplemental proposed rules shift the focal point of risk control from Algorithmic Trading to Electronic Trading.[227] More specifically, Supplemental proposed §§ 1.82 and 38.255 requires FCMs to implement risk controls and other measures on all Electronic Trading Order Messages not originating with an AT Person. Supplemental proposed § 40.20 requires that DCMs implement risk controls on all Electronic Trading Order Messages, regardless of their source. As a whole, the Commission's revised risk control framework addresses concerns regarding market disruptions arising from Electronic Trading, while also preserving an important focus on the unique risks of Algorithmic Trading in modern markets. In addition, the Commission's revised framework streamlines risk controls from three levels to two, and provides AT Persons with the flexibility to delegate certain risk control functions to their FCM(s).

The risk control requirements for AT Persons in Supplemental proposed § 1.80 apply primarily to AT Order Messages. However, the Commission is proposing in new Supplemental proposed § 1.80(g) that AT Persons also apply pre-trade risk controls to their Electronic Trading Order Messages. The NPRM's original approach, which

[227] In this regard, the Commission notes that Algorithmic Trading is a subset of Electronic Trading. Risk control mechanisms to address Electronic Trading would necessarily also address Algorithmic Trading.

required AT Persons to implement risk controls only to their AT Order Messages, left a potentially significant gap in Regulation AT's overall framework for reducing risk in modern markets. Specifically, non-algorithmic Electronic Trading Order Messages originating with AT Persons would have been left with only one level of required risk controls (i.e., at the DCM). To ensure two levels of risk controls on all Electronic Trading Order Messages, the Commission is proposing Supplemental proposed § 1.80(g)(1), which provides that AT Persons must apply the risk controls required by Supplemental proposed § 1.80(a), (b) and (c) to their Electronic Trading Order Messages that do not arise from Algorithmic Trading. AT Persons may make appropriate adjustments in their § 1.80(g)(1) risk controls mechanisms to accommodate the application of such mechanisms to Electronic Trading Order Messages.[228] Supplemental proposed § 1.80(g)(2) and (3) provides a delegation provision similar to Supplemental proposed § 1.80(d), in which an AT Person may delegate to an executing FCM compliance with § 1.80(a) risk control requirements as to Electronic Trading Order Messages.

The Commission has also revised NPRM proposed §§ 1.80, 1.82 and 40.20 to address the inconsistency noted by CME as to whether risk controls must "prevent" or "prevent and mitigate" risk. Supplemental proposed §§ 1.80, 1.82 and 40.20 all now provide for the standard of "reasonably designed" to "prevent and reduce the potential risk of . . . ." As to the concern raised by CME that "prevent" is a difficult standard to

[228] Certain provisions of § 1.80(a), (b) and (c) reference "Algorithmic Trading" and "AT Order Message." The language "to accommodate the application of such mechanisms to Electronic Trading Order Messages" means that the risk control mechanisms implemented pursuant to Supplemental proposed § 1.80(g) should be designed and calibrated to apply to Electronic Trading and Electronic Trading Order Messages, rather than to Algorithmic Trading and AT Order Messages.

meet, the Commission notes that existing § 38.255 imposes on DCMs an obligation to "prevent and reduce the potential risk of price distortions and market disruptions . . ." which is not modified by "reasonably designed."[229] The statutory text of the related core principle also requires that DCMs have the capacity and responsibility to prevent manipulation, price distortion, and disruptions of the delivery or cash settlement process (also without the "reasonably designed" modification).[230] The Commission believes that "reasonably designed" to "prevent" means that the relevant entity – AT Person, FCM or DCM – does those things that are under its control, at its level in the lifecycle of an order, to prevent a disruption from reaching the next level closer to the DCM or at the DCM.

Discussed below are changes to rule text addressing the change in focus to Electronic Trading in Supplemental proposed §§ 1.82, 38.255 and 40.20.

Proposed § 1.82. In the NPRM, proposed § 1.82 required risk controls and other measures to be reasonably designed to prevent or mitigate an "Algorithmic Trading Disruption." Supplemental proposed § 1.82 now requires that FCM risk controls and other measures be reasonably designed to prevent and reduce the potential risk of a disruption associated with Electronic Trading (including an Algorithmic Trading Disruption). The Commission discusses the newly defined terms Electronic Trading and Electronic Trading Order Message in Section VI(C) below.

The Commission considers a disruption associated with Electronic Trading to mean an event that disrupts, or materially degrades, the Electronic Trading of a market participant, the operation of the DCM on which the market participant is trading, or the ability of other market participants to trade on the DCM on which the market participant

[229] See existing § 38.255, 17 CFR 38.255.
[230] DCM Core Principle 4, Section 5(d)(4) of the Act, 7 U.S.C. 7(d)(4) (2012).

is trading. An Algorithmic Trading Disruption, as defined under Regulation AT, is a subset of the types of Electronic Trading disruptions that could occur.

Supplemental proposed § 1.82 also includes several changes to the enumerated risk controls and order cancellation system requirements based on the addition of Electronic Trading to Regulation AT's risk control framework. In the NPRM, proposed § 1.82(a)(1) required risk controls by reference to the controls listed in § 1.80(a)(1). The Supplemental NPRM now explicitly lists those controls within the regulation text of Supplemental proposed § 1.82(a)(1). In addition, Supplemental proposed § 1.82(a)(1)(i) changes the words "Maximum AT Order Message frequency" to "maximum Electronic Trading Order Message frequency." Similarly, the Supplemental proposed rule now explicitly lists required order cancellation systems within the regulation text of § 1.82(a)(1) and makes such systems applicable to Electronic Trading Order Messages and Electronic Trading, rather than AT Order Messages and Algorithmic Trading. Supplemental proposed § 1.82(a), (b) and (c) include similar conforming changes in light of the proposed shift in focal point of FCM risk controls from Algorithmic Trading to Electronic Trading.

The Supplemental NPRM's proposed FCM rules do not specify the exact stage at which the FCM needs to implement its controls on an Electronic Trading Order Message. In cases where an order is transmitted electronically to, or through, the FCM, the FCM may have significant flexibility in when and how the risk controls are applied prior to dissemination to the DCM. In cases where an order is communicated manually to the FCM, who would then submit the order in the electronic system, risk controls may need to be applied later in the submission process.

In the NPRM, the location of the FCM's controls varied according to whether an AT Person's orders were placed through DEA or intermediated by the FCM. The Supplemental NPRM's proposed FCM rule retains that basic structure. However, with respect to those orders that are submitted through DEA, Supplemental proposed § 1.82(b) and (c) now provide greater discretion to the FCM regarding how to comply with its § 1.82 obligations. FIA's comment letter indicated that pre-trade risk controls can be administered by the FCM facilitating electronic access to the market, "and implemented within the appropriate system that the FCM has administrative control over, including third-party vendor systems and exchange provided graphical user interfaces."[231] The revised proposed rule now provides discretion to executing FCMs to comply with § 1.82(b) in the DEA context using the FCM's own controls, or controls provided by a DCM or other third party, as long as these controls satisfy the requirements of § 1.82(b). Further, NPRM proposed § 1.82(c) had provided that for non-DEA orders, the FCM must itself establish and maintain pre-trade risk controls and order cancellation systems. Supplemental proposed § 1.82(c) now provides that the FCM may also comply with § 1.82(c) by using the pre-trade risk controls and order cancellation systems provided by DCMs pursuant to § 38.255. The Commission intends that this change will provide increased flexibility and decreased costs on FCMs, and allows the FCM to choose what it judges to be the most appropriate, and robust, risk control system from a broader set of options.

Proposed § 38.255. The Commission made conforming changes to NPRM proposed § 38.255 consistent with its decision to shift the focal point of FCM risk control

[231] FIA 3, 5. An industry participant during the Roundtable also indicated that some FCMs may use third party tools to perform certain services to clients. See Roundtable Tr. 166:17-167:5.

obligations from Algorithmic Trading orders to Electronic Trading orders. These include use of the newly defined terms "Electronic Trading" and "Electronic Trading Order Message." The Commission has also adjusted several regulation cross-references in light of changes made to NPRM proposed § 1.82 (see §§ 38.255(b)(1)(i) and 38.255(b)(2)).

Finally, as noted above with respect to § 1.82, an FCM now has discretion in the DEA context as to whether it will use DCM-provided controls to comply with § 1.82 requirements. Consistent with that change, Supplemental proposed § 38.255(c) now allows a DCM that permits DEA to require that an FCM use the DCM-provided controls, or substantially equivalent controls developed by the FCM itself or a third party. Prior to an FCM's use of its own or a third party's systems and controls, the FCM must certify to the DCM that such systems and controls are in fact substantially equivalent to the systems and controls that the DCM makes available pursuant to Supplemental proposed § 38.255(b).

Proposed § 40.20. The Commission made conforming changes to proposed § 40.20 consistent with its decision to require DCMs to apply risk controls and other measures to electronic trading orders, rather than only to Algorithmic Trading orders. These include changes to use the terms "Electronic Trading" and "Electronic Trading Order Message." In addition, the regulatory text of Supplemental proposed § 40.20 now explicitly lists risk controls and order cancellation systems within the regulation text of §§ 40.20(a)(1) and 40.20(b)(1)(i).

Like Supplemental proposed § 1.82, Supplemental proposed § 40.20 now requires DCMs to implement pre-trade and other risk controls reasonably designed to prevent a disruption associated with Electronic Trading (including an Algorithmic Trading

Disruption). As discussed above, the Commission considers a disruption associated with Electronic Trading to mean an event that disrupts, or materially degrades, the Electronic Trading of a market participant, the operation of the DCM on which the market participant is trading, or the ability of other market participants to trade on the DCM on which the market participant is trading.

Finally, NPRM proposed § 40.20(d) had required that DCMs implement risk control mechanisms for manual order entry and other non-Algorithmic Trading. Given the change in overall applicability of § 40.20 to Electronic Trading, the Commission has determined to withdraw § 40.20(d).

4. Commission Questions

28. Supplemental proposed §§ 1.82(b) and 38.255(c) provide discretion to the FCM to comply with § 1.82(b) in the DEA context using its controls, or controls provided by a DCM or other third party, as long as those controls are substantially similar to the controls provided by the DCM. Do you agree with this level of discretion, or do you believe that FCMs should be required to use DCM-provided controls in the DEA context to comply with § 1.82?

29. Supplemental proposed § 1.82(c) provides that the FCM may also comply with § 1.82(c) by using the pre-trade risk controls and order cancellation systems provided by DCMs pursuant to § 38.255. Do you agree with this discretion? Given the revised definition of DEA, should proposed §§ 1.82 and 38.255 make any distinction between DEA and non-DEA orders?

30. The Commission assumes that, given the definition of DEA provided in Supplemental proposed § 1.3(yyyy), risk controls implemented by an FCM for non-DEA

orders might function similarly to a DCM-provided controls implemented by an FCM for DEA orders. Should Regulation AT therefore require that DCMs provide § 1.82 risk controls for both DEA and non-DEA orders?

C. New and Revised Definitions; Change from "Clearing Member" to "Executing" FCMs

1. Overview and Policy Rationale for New Proposal

As discussed above, the Commission has decided to modify its framework such that risk controls would be required at two, rather than three, levels of the order submission process. The DCM will always be one level of risk controls. The second level will be either an AT Person or an executing FCM.[232] In addition, the Supplemental proposed rules require DCMs (and FCMs, when such firms implement risk controls) to implement risk controls on all electronic orders. Paired with those rule changes, the Commission is proposing new defined terms "Electronic Trading" and "Electronic Trading Order Message." The Commission has also changed terminology in Regulation AT relating to FCMs. In the NPRM, proposed §§ 1.82, 1.83, 38.255, and 40.22 applied to or referred to "clearing member" FCMs. Now such rules apply or refer to "executing" FCMs. These additional changes are responses to commenter concerns with the prior proposed risk control framework, particularly comments that even non-algorithmic electronic orders have the potential to cause disruption and that "clearing member" FCMs may not have the ability to implement certain controls on a pre-trade basis.

[232] Whether the second level of risk controls is implemented by the AT Person or an executing FCM depends on whether the order originated with an AT Person and whether the AT Person has delegated risk control implementation to the executing FCM.

2. NPRM Proposal and Comments

The NPRM proposed to define the terms "Algorithmic Trading" and "AT Order Message" (see NPRM proposed §§ 1.3(zzzz) and 1.3(wwww), respectively), but not the terms "Electronic Trading" and "Electronic Trading Order Message." Pursuant to the NPRM, the proposed term AT Order Message was defined as each new order or quote submitted through Algorithmic Trading to a designated contract market by an AT Person and each change or deletion submitted through Algorithmic Trading by an AT Person with respect to such an order or quote. This term was used in the proposed regulations requiring AT Persons, clearing member FCMs and DCMs to implement pre-trade risk controls and other measures with respect to AT Order Messages.

Comments Received. Commenters generally supported the NPRM proposed definition of AT Order Message. CME commented that the term should not include any "non-actionable" messages, such as requests for quotes, requests for cross, heartbeat messages, and mass quotes.[233] CME further indicated that DCMs should be able to determine what activity may be disruptive in the context of non-actionable messages.[234] FIA commented that message throttles should not reject cancellation messages because such messages may be risk-minimizing.[235] FIA further stated that it should be in the discretion of the person supervising order messages to take action if excessive cancellation messages are disruptive.[236]

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[233] CME A-5. On its website, CME states that "mass quotes" allow authorized CME Globex customers to create and maintain a market on a large number of instruments simultaneously. See http://www.cmegroup.com/confluence/display/EPICSANDBOX/Mass+Quotes.
[234] CME A-5.
[235] FIA A-13.
[236] Id. at 13.

The NPRM proposed several rules that impose risk control and reporting requirements on clearing member FCMs (i.e., §§ 1.82 and 1.83) or that otherwise refer to FCMs (i.e., §§ 38.255 and 40.22). The principal risk control rule applicable to FCMs is NPRM proposed § 1.82. AIMA commented that the pre-trade risk controls proposed in the NPRM "represent a strong foundation for ensuring the most obvious safeguards are in place to protect markets from the risks of automated execution."[237] AIMA further commented on the type of entity that should be subject to NPRM proposed § 1.82, stating that the rule should apply to any AT Person providing market access services in the Algorithmic Trading transaction chain, not only to clearing member FCMs.[238] Similarly, other commenters took the position that NPRM proposed § 1.82 did not apply to the correct set of FCMs. For example, FIA stated that the § 1.82 requirements should be on the FCM "facilitating access to the DCM."[239] In support of its position, FIA noted that market participants "can choose to route orders through an FCM that is not their clearer and give up the trades after execution on the DCM."[240] FIA stated that non-clearing FCMs should provide the same standard of pre-trade risk management as an FCM that executes and clears for a market participant.[241] Accordingly, FIA asserted that any clearing member of a DCM that provides electronic access for its customers or its own trading on a DCM should implement appropriate risk controls.[242] FIA further stated that if a clearing FCM delegates facilitation of electronic access to another entity, the

[237] AIMA III 2.
[238] AIMA 14; see also AIMA III 3.
[239] FIA A-29.
[240] Id.
[241] Id.
[242] Id.

delegated entity should implement the appropriate controls and the delegating FCM should help ensure that such controls are in place.[243]

The Industry Group expanded on this point in their comment letter submitted during the Second Comment Period. The Industry Group indicated that a customer may use the same FCM to provide both execution and clearing services, or may use one FCM for execution and choose to clear trades through another FCM.[244] In that instance, the executing FCM acts as the "gatekeeper" to the DCM matching engine, and is the only FCM that can administer pre-trade risk controls.[245] Any other FCMs that may subsequently clear trades can only provide controls on a post-trade basis.[246]

3. Substance of New Proposal

a. Defined Terms Electronic Trading and Electronic Trading Order Message

The NPRM did not propose definitions of "Electronic Trading" or "Electronic Trading Order Message." Because the Commission has decided to expand some AT Person, FCM and DCM requirements to electronic orders, these new defined terms are necessary.

Supplemental proposed § 1.3(ddddd) defines "Electronic Trading," for purposes of §§ 1.80, 1.82, 1.83, 38.255, 40.20 and 40.22, as trading in any commodity interest (as defined in paragraph (yy) of § 1.3) on an electronic trading facility (as such term is defined by section 1a(16) of the Act), where the order, order modification or order cancellation is electronically submitted for processing on or subject to the rules of a

[243] Id. at A-30 n.28.
[244] Industry Group 4-5 n.4.
[245] Id.
[246] Id.

DCM. The scope of the defined term is intended to be expansive, covering, for example, all order activity on CME Globex.

Supplemental proposed § 1.3(bbbbb) defines "Electronic Trading Order Message" as each new order submitted using Electronic Trading and each modification or cancellation submitted using Electronic Trading with respect to such an order. This defined term largely tracks the term "AT Order Message" as proposed in the NPRM and as revised in this Supplemental NPRM.

b. Revisions to Defined Term "AT Order Message"

In this Supplemental NPRM, the Commission makes several changes to the definition of AT Order Message (§ 1.3(wwww)), mainly for the purposes of simplification. The words "modification or cancellation" have replaced the words "change or deletion" because it is the Commission's understanding that "modification" and "cancellation" are more commonly used terms in the industry. The words "to a designated contract market" were deleted as unnecessary, because the concept of an order being submitted specifically to a DCM, as opposed to any other type of exchange, is embedded in the definition of Algorithmic Trading (see NPRM proposed § 1.3(zzzz)).

Finally, in this Supplemental NPRM, the Commission has deleted the word "quote" from the definition of AT Order Message. The word "quote" is also not contained in the Electronic Trading Order Message, Algorithmic Trading, or Electronic Trading definitions. The Commission intends that the term "order" means any firm, actionable messages to the DCM. Accordingly, the term "order" includes quotes or mass quotes as long as such quotes are firm and actionable. In response to the NPRM, CME commented that the term AT Order Message should not include any "non-actionable"

messages, such as requests for quotes, requests for cross, heartbeat messages, and mass quotes.[247] To the extent that certain types of messages, such as requests for quote, requests for cross, and heartbeat messages, are not actionable, then such messages would not fall within the definition of AT Order Message or Electronic Trading Order Message. However, the Commission understands from CME's website that mass quotes can be actionable.[248] In cases where the use of quotes (such as mass quotes) is similar to the submission of other order types in that they are actionable, such quotes would have the potential to cause market disruption and, therefore, should be included within the meaning of the terms AT Order Message and Electronic Trading Order Message.

c. Change in Terminology from "Clearing Member" to "Executing" FCMs

In light of the comments received, the Commission determined that applying NPRM proposed § 1.82 to clearing member FCMs would be too limiting. Depending on the order submission process, executing FCMs, rather than clearing member FCMs, may be in the best position to apply risk controls on a pre-trade basis; in many cases, the clearing FCM and the executing FCM will be the same firm, so the wording change will not result in a requirement change. Accordingly, the Commission has revised NPRM proposed § 1.82 (and made conforming changes in Supplemental proposed §§ 1.80, 1.83, 38.255, 40.20 and 40.22) so that the risk control and recordkeeping requirements previously applicable to clearing member FCMs now apply to executing FCMs.

[247] CME A-5.
[248] For example, CME Group's webpage on mass quotes indicates that successfully accepted quotes act as limit orders. See http://www.cmegroup.com/confluence/display/EPICSANDBOX/Mass+Quotes.

The Commission is seeking comment on whether the change from "clearing member" FCMs to "executing" FCMs is appropriate. If commenters raise concerns with this change, and prefer an alternate description, including a return to the prior language, the Commission may adjust the final rules in light of such comments. With respect to Regulation AT, the Commission seeks to ensure that electronic order messages are subject to risk controls by an FCM who provides access to a DCM and can monitor that order message flow prior to its arrival at the DCM.[249] Accordingly, all FCMs facilitating such access should be aware that they may be subject to final rules under Regulation AT including, without limitation, Supplemental proposed § 1.82 required controls and § 1.83 required recordkeeping. FCMs are encouraged to submit comments concerning such rules and whether certain FCMs should, or should not, be subject to Regulation AT.

4. Commission Questions

31. With respect to the term "Electronic Trading," should the definition exclude trading on a hybrid trade execution model, i.e., one that includes non-electronic components?[250]

32. The Commission considers the term "order" to include all firm, actionable messages, and understands mass quotes to be actionable messages. Are there other types of firm, actionable messages that constitute orders—and therefore fall within the scope of the terms AT Order Message and Electronic Trading Order Message—that the Commission should clarify in the final rules? If mass quotes are not firm, actionable messages, please explain.

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[249] In some instances, an order may flow through multiple FCMs. The Commission expects that in such a scenario, each executing FCM must comply with § 1.82 with respect to such order.

[250] With respect to hybrid trade execution models, the Commission means the unlikely event of a DCM employing a trade execution model that has a voice component, as opposed to an entirely electronic model.

33. The Commission has changed Regulation AT references to "clearing member" FCMs to "executing" FCMs. Do you agree or disagree with this change? Is the term "executing" FCMs sufficiently clear? Does the term "executing" FCMs more appropriately capture the type of FCMs that can apply pre-trade risk controls and order cancellation systems to electronic trading orders? Does the term "executing" FCMs inappropriately exclude certain FCMs that should otherwise comply with § 1.82 obligations?

D. AT Person Delegation to FCM

1. Overview and Policy Rationale for New Proposal

As explained above, the Commission proposes streamlining risk controls from three levels to two and shifting the focal point of risk control from Algorithmic Trading to Electronic Trading. The number of AT Persons may be reduced as a result of the proposed volume threshold test, but the obligations of AT Persons pursuant to NPRM proposed § 1.80 will remain largely the same, with several exceptions. As discussed below, the changes to NPRM proposed § 1.80 are: (1) AT Persons would be required to implement certain risk controls to their Electronic Trading Order Messages, in addition to their AT Order Messages; (2) AT Persons would be permitted to delegate certain pre-trade risk control obligations to their executing FCMs; (3) AT Persons would no longer be required to notify their clearing member and DCM of their intended use of Algorithmic Trading; and (4) the provisions proposed in NPRM § 1.80(e) regarding self-trade prevention tools are reserved, as the Commission anticipates postponing consideration of self-trade prevention to a second phase of Regulation AT rulemaking in the future. The Commission proposes the delegation option in order to provide increased

flexibility and decreased burden on AT Persons, and eliminates the notification requirement in response to commenter concerns that such provision is unnecessary.

2. NPRM Proposal and Comments

The NPRM proposed § 1.80, which required that AT Persons implement pre-trade risk controls and other measures for all AT Order Messages that are reasonably designed to prevent an Algorithmic Trading Event.[251] Relevant controls and measures required by NPRM proposed § 1.80 included maximum AT Order Message frequency and maximum execution frequency per unit time; order price parameters and maximum order size limits; order cancellation and ATS disconnect systems; and connectivity monitoring systems. They also included several other specific requirements, such as notification by AT Persons to applicable DCMs and clearing member FCMs that they will engage in Algorithmic Trading; calibrating or otherwise implementing DCM-provided self-trade prevention tools; and periodic review of the sufficiency and effectiveness of the controls implemented by the AT Person.

Comments Received. Commenters addressed various aspects of the proposed rule, including the enumerated risk control requirements and order cancellation requirements. The Commission is continuing to review such comments, and may make additional changes to such provisions as part of the final rules. This Supplemental NPRM eliminates the notification requirement and reserves for later consideration the self-trade tool implementation requirements, proposed in the NPRM, respectively, as §§ 1.80(d) and 1.80(e). As stated in the NPRM, the purpose of the § 1.80(d) notification provision was to ensure that clearing member FCMs and exchanges have sufficient

[251] See NPRM at 78849-78855.

advance notice to implement and calibrate pre-trade and other risk controls to manage risks arising from the AT Person's trading.[252]

In response to the NPRM, FIA and CME opposed proposed § 1.80(d).[253] FIA commented that pre-notification of a market participant's initial use of Algorithmic Trading is unnecessary and overly burdensome.[254] FIA stated that when an FCM accepts a client, the client informs the FCM if they will be conducting Algorithmic Trading, and that most exchanges require operator IDs for algorithmic traders.[255] FIA further stated that the breadth of the term Algorithmic Trading would require almost every FCM and DCM client to notify the FCM and DCM of their use of Algorithmic Trading technology.[256] Finally, FIA commented that identifying each change to a system would be counterproductive and burdensome, as it would require thousands of notices per year by each participant.[257] CME agreed that FCMs already obtain a significant amount of information from clients about the type of trading they anticipate engaging in so that the FCM can comply with existing §§ 1.11 and 1.73, and that the Commission should not prescribe that additional information must be communicated.[258] The Industry Group recommended that market participants trading electronically, without passing through FCM-administered risk controls, should self-identify to applicable DCMs prior to trading, or may be identified via tags on order messages.[259] Nadex requested a change to § 1.80(d), stating that compliance rests entirely on the AT Person providing the

[252] Id. at 78854.
[253] FIA A-26; CME A-12.
[254] FIA A-26.
[255] Id.
[256] Id.
[257] Id.
[258] CME A-12.
[259] Industry Group 8.

notification, and therefore the regulation should specify that in the absence of such notification, the FCM and DCM are absolved of any liability for non-compliance with Regulation AT.[260] In contrast, AIMA supported the proposed § 1.80(d) notification requirement.[261]

3. Substance of New Proposal

a. Delegation to Executing FCMs

The Commission proposes a change to NPRM proposed § 1.80 so that AT Persons may delegate compliance with § 1.80(a) pre-trade risk control requirements to their executing FCMs. Supplemental proposed § 1.80(d)(1) provides that an AT Person may choose to comply with § 1.80(a) by implementing required pre-trade risk controls, or it may instead delegate compliance with such obligations to its executing futures commission merchant(s). As noted above, commenters generally found the NPRM's risk control framework as too "one size fits all," and recommended a more principles-based rule. The Commission believes that the delegation provision provides AT Persons with increased flexibility and decreased burden and compliance costs with respect to § 1.80 compliance. The Supplemental proposed rules do not require the FCM to accept the delegation. If the executing FCM declines to comply with § 1.80(a), the AT Person must implement the risk controls itself.

Supplemental proposed § 1.80(d)(2) provides that an AT Person may only delegate such functions when (i) it is technologically feasible for each relevant futures commission merchant to comply with § 1.80(a) with a level of effectiveness reasonably designed to prevent and reduce the potential risk of an Algorithmic Trading Event; and

[260] Nadex 5.
[261] AIMA 14.

(ii) each relevant futures commission merchant notifies the AT Person in writing that the futures commission merchant has accepted the AT Person's delegation and that it will comply with § 1.80(a) on behalf of the AT Person." The purpose of § 1.80(d)(2)(i) is to ensure that the FCM is actually able to effectively implement pre-trade risk controls, order cancellation systems and order connectivity systems on behalf of the AT Person. The Commission believes that generally, use of DEA or some other trading technology that is outside the control of the executing FCM may prevent the FCM from effectively implementing controls on a pre-trade basis. Such delegation would be improper under Supplemental proposed § 1.80(d). The purpose of § 1.80(d)(2)(ii) is to ensure that it is clear, as between the AT Person and the FCM, who is responsible for complying with § 1.80(a).

Finally, Supplemental proposed § 1.80(f) continues to require an AT Person to periodically review its compliance with § 1.80 to determine whether it has effectively implemented sufficient measures. The Commission has revised this section so that its standard is consistent with the "reasonably designed to prevent and reduce the potential risk of" an Algorithmic Trading Event standard discussed above. In addition, the Commission has revised this section to account for the possibility that an AT Person has delegated § 1.80(a) compliance to an FCM, and requires the AT Person to periodically review such FCM's compliance with § 1.80(a).

b. Proposed Use of Algorithmic Trading Notification Requirement

Based on the addition of Electronic Trading to Regulation AT's risk control framework, the Commission has determined that mandatory notification from an AT Person to an FCM or DCM is no longer warranted. Accordingly, the Commission

proposes to withdraw the notification requirements provided in NPRM § 1.80(d). The Commission emphasizes, however, that DCMs must have an appropriate awareness of its market participants engaged in Algorithmic Trading, as well as the systems and strategies used by market participants. Such understanding is necessary not only for DCMs' role as self-regulatory organizations with plenary responsibility for the oversight of their markets, but also to comply with the requirements of Supplemental proposed § 40.22. This provision, explained in detail below, requires each DCM to establish an effective program for periodic review and evaluation of AT Persons' compliance with §§ 1.80 and 1.81. The Commission expects that DCMs will establish their own rules and procedures to ensure that they are aware of the AT Persons trading on their markets, and to successfully comply with Supplemental proposed § 40.22.

c. Voluntary Election of AT Person Status

Finally, the Commission, as part of its changes to the definition of "AT Person," proposes § 1.3(xxxx)(2), which allows a person that does not satisfy the conditions of § 1.3(xxxx)(1) to nevertheless elect to become an AT Person. Prior to becoming an AT Person, such person must register as a floor trader as defined in § 1.3(x)(1)(ii) and submit an application for membership in at least one RFA pursuant to § 170.18. A person that elects to become an AT Person pursuant to Supplemental proposed § 1.3(xxxx)(2)(i) must comply with all requirements of AT Persons pursuant to Commission regulations.[262] The Commission proposes § 1.3(xxxx)(2) in order to provide increased flexibility to persons that prefer to implement their own pre-trade risk controls, rather than leaving implementation of such measures to executing FCMs.

[262] See Supplemental proposed § 1.3(xxxx)(2)(ii).

4. Commission Questions

34. Please explain whether you support or oppose the ability of AT Persons to delegate certain § 1.80 obligations to FCMs, including implementation of pre-trade risk controls, order cancellation systems and system connectivity requirements.

a. Does the language of Supplemental proposed §§ 1.80(d)(2) and (g)(3) providing that an AT Person may only delegate such functions when (i) it is technologically feasible adequately ensure that delegation only occurs when the FCM can implement controls on a pre-trade basis?

b. Should the Commission require the AT Person to conduct due diligence or obtain a certification to ensure that the FCM is implementing sufficient controls?

c. Should the Commission allow AT Persons to delegate to FCMs compliance with other § 1.80 obligations, such as § 1.80(b) order cancellation requirements? For which obligations would FCM delegation be technologically feasible?

35. Do you agree with the Commission's determination to eliminate the notification of the use of Algorithmic Trading requirement that had been required in NPRM proposed § 1.80(d)? If you believe that the Commission should retain such a requirement, please explain why.

36. Will DCMs be able to comply with Supplemental proposed § 40.20(c)'s system connectivity requirements as to AT Persons without an explicit requirement that AT Persons or FCMs notify DCMs that the AT Persons will be conducting Algorithmic Trading?

VII. Reporting and Recordkeeping Obligations

A. Overview and Policy Rationale for New Proposal

NPRM proposed §§ 1.83 and 40.22 required that AT Persons and clearing member FCMs provide the DCMs on which they operate annual reports containing information on their compliance with §§ 1.80(a) and 1.82(a)(1), and that DCMs establish a program for effective review and evaluation of such reports. The proposed rules also provided recordkeeping requirements regarding NPRM proposed §§ 1.80, 1.81 and 1.82 compliance. The reports, recordkeeping requirements, and review program were intended to enable DCMs to understand the pre-trade risk controls and compliance procedures of AT Persons and FCMs with respect to Algorithmic Trading and to identify and take remedial action to address potential risks and compliance concerns.

In response to the NPRM, the Commission received comments indicating that the reporting requirements were overly burdensome and would provide little benefit with respect to mitigating the risks of Algorithmic Trading. Accordingly, as described below, the Commission has eliminated the annual compliance reports requirement; retained the recordkeeping requirements; and changed the DCM annual compliance report review program to a more general program for review of AT Person and FCM compliance with §§ 1.80, 1.81 and 1.82. The Commission further proposes requiring DCMs to mandate that AT Persons and executing FCMs provide DCMs with an annual certification attesting that the AT Person or FCM complies with the requirements of §§ 1.80, 1.81, and 1.82, as applicable. The Commission believes that these changes will significantly decrease the cost of compliance by AT Persons and FCMs with Regulation AT, while at the same time providing enhanced flexibility and discretion to DCMs in terms of

designing and implementing an effective program for review of AT Person and FCM controls and procedures related to Algorithmic Trading.

B. NPRM Proposal and Comments

NPRM proposed § 1.83(a) and (b) required that AT Persons and clearing member FCMs provide the DCMs on which they operate with information regarding their compliance with §§ 1.80(a) and 1.82(a)(1). NPRM proposed § 40.22 required that each DCM that receives a report described in § 1.83 establish a program for effective review and evaluation of the reports. The reports proposed by § 1.83 and the review program proposed by § 40.22 were intended to ensure that AT Persons and clearing FCMs implement effective risk controls and regularly review these risk controls. NPRM § 1.83(c) and (d) complimented the compliance report review program by requiring that AT Persons and clearing member FCMs keep and provide upon request to DCMs books and records regarding their compliance with proposed §§ 1.80 and 1.81 (for AT Persons) and § 1.82 (for clearing member FCMs). NPRM proposed § 40.22(d) required DCMs to implement rules that require AT Persons and FCMs to keep and provide to the DCM books and records regarding compliance with §§ 1.80, 1.81 and 1.82. Finally, NPRM proposed § 40.22(e) required DCMs to review and evaluate, as necessary, such books and records maintained by AT Persons and clearing member FCMs regarding their Regulation AT compliance.

Comments Received. Numerous commenters opposed the NPRM requirement that AT Persons file an annual report.[263] AIMA expressed concern about the burden that

[263] AIMA 17; CME 20, A-20-A-21; FIA 10, A-90; MGEX 15, 16, 25-26; Commercial Alliance 12; Nadex 5; OneChicago 6; ISDA 71; MFA 29; ICE 10, A-30, A-31; NIBA 2; NASDAQ 4.

reviewing the filings would have on DCMs,[264] and CME, FIA, MGEX, Commercial Alliance and Nadex suggested that the cost of requiring participants to prepare and submit compliance reports to DCMs outweighs any benefit.[265] Furthermore, CME, FIA and ICE all indicated that information in the reports would be outdated and no longer useful by the time a report is reviewed.[266]

In addition, commenters questioned the technical capability of DCMs to perform a meaningful review of AT Persons' reports or to assess whether the quantitative settings or calibrations of any AT Person's controls are sufficient.[267] MGEX stated that "it is impracticable to expect DCMs to understand all unconventional or proprietary trading strategies or the varied technological systems that market participants employ."[268] Nadex and OneChicago were concerned that DCMs would be responsible for the manner an AT Persons sets or calibrates risk controls.[269] MGEX was skeptical that reviewing compliance reports would ensure that AT Persons are actually following these measures in practice.[270] MGEX believed that clear rules and robust surveillance are a better way to ensure market integrity.[271] CME and FIA further commented that compliance reports would be duplicative for clearing FCMs, which already undergo review by their Designated Self-Regulatory Organization ("DSRO") and clearing organizations.[272]

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[264] AIMA 17.
[265] CME 20; FIA 10; MGEX 15, 25-26; Commercial Alliance 12; Nadex 5.
[266] CME 20, A-21; FIA 10; ICE A-30.
[267] CME 20, A-20; FIA 10; ICE 10, A-30.
[268] MGEX 16.
[269] Nadex 5-6; OneChicago 6. Nadex also asserted in its comment letter that "the proposed regulations would essentially place the DCM in the role of an advisor or consultant to the AT Person. The AT Person could hold the DCM responsible for any errors or malfunctions that occur as the result of the DCM's 'remediation', or shift blame to the DCM in the event those changes are found inappropriate or insufficient by the CFTC or RFA." Nadex 6.
[270] MGEX 16.
[271] Id.
[272] CME 20; FIA 10, A-90.

Several commenters were concerned about the cost of compliance.[273] For example, ICE believed that DCMs would have to hire additional staff to conduct a comprehensive review of reports and expressed concern regarding the potential additional cost.[274] LCHF and NIBA commented that only large market participants should be required to submit compliance reports, noting concerns as to the costs for small firms or IBs.[275] MGEX and NASDAQ commented that small DCMs will be particularly burdened because they will need to hire additional staff.[276] NASDAQ believed that the proposed requirements "could potentially cause some DCMs to cease or scale back operation, and impact the entry of new DCMs."[277]

As an alternative process to mandatory filing of annual reports a number of commenters suggested certification processes and outlined different processes that could be required.[278] For example, LCHF suggested that compliance reports be reviewed in situations limited to those involving an "open investigation" or "complaint filed on a market participant."[279] MGEX similarly suggested that if compliance report reviews were included, they should only occur as a part of an investigation of a market disruption, or alternatively that the FCM or DSRO would have the responsibility for conducting such a review.[280]

[273] ISDA 7l; MFA 29.
[274] ICE A-31.
[275] LCHF 3; NIBA 2.
[276] MGEX 16.
[277] NASDAQ 4.
[278] CME 20, A-21, 22; FIA 10, FIA A-90; ICE 9-10; MFA 29; NASDAQ 4; OneChicago 6.
[279] LCHF 3.
[280] MGEX 17.

Commenters also expressed concern over the confidentiality of information required to be provided to DCMs in compliance reports.[281] AIMA suggested that language be added to the proposed rule to require that DCMs maintain compliance reports in confidence, and that the Commission treat these as non-public reports for FOIA purposes.[282]

With respect to the DCM's role in the reporting and recordkeeping framework, OneChicago, CME, FIA and ICE commented that the compliance reports provided to DCMs would be overly burdensome and ineffective in reducing risk.[283] FIA and ICE commented that DCMs already follow procedures that effectively reduce the risk from Algorithmic Trading.[284] ICE further commented that the compliance reports are unnecessary, because "DCMs have implemented comprehensive market surveillance and regulation programs that include automated reports and alerts designed to identify instances of aberrant or abnormal order or trade activity. These programs are already effective at identifying specific events of concern that involve Algorithmic Trading."[285] CME, FIA and ICE also commented that the reports would include stale and irrelevant data, which would not be helpful to DCMs in preventing future market risk or disruptive practices.[286] FIA commented that "DCMs are likely not to know the trading strategies or risk tolerances of any particular AT Person and thus are unable to assess the adequacy of

[281] AIMA 18; FIA A-91, A-92.
[282] AIMA 18.
[283] OneChicago 6; CME 20; FIA A-90-91; ICE 33.
[284] FIA A-94; ICE 33.
[285] ICE 33.
[286] CME A-21; FIA A-91; ICE 30-31.

their development and testing protocols, their procedures to help detect Algorithmic Trading Compliance Issues, or their pre-trade risk and other controls."[287]

CBOE commented on the preamble language, stating that a DCM may want to review an AT Person's books and records, pursuant to § 40.22(d)-(e), if the AT Person represents significant volume in a particular product.[288] CBOE stated that "the trigger for a review of risk control books and records should be potential or actual problematic behavior by the AT Person that suggests the need for heightened scrutiny of the AT Person in relation to its risk controls," but that high volume should not be a trigger for review.[289] In addition, OneChicago found the text of § 40.22 vague and questioned what would be considered appropriate remediation of any deficiency found in an AT Person or FCM report.[290]

Some commenters also asserted that the Commission's estimated cost for DCMs to comply with § 40.22 is too low.[291] CME stated that the annual cost for each of its four exchanges would be closer to $525,000, stating that "this figure assumes that across all four Exchanges, approximately 650 entities would come within the scope of the proposed compliance report requirements and each entity would be reviewed once every four years (across all four Exchanges). If CME Group Exchanges were required to review each entity's annual report once every two years, the cost would double as CME Group would need to hire twice as many full-time employees. CME Group estimates that it would take approximately one month for a full-time employee to complete each review."[292] MGEX

[287] FIA A-91.
[288] NPRM 78876.
[289] CBOE 7-8.
[290] OneChicago 6.
[291] CME 22; MGEX 26.
[292] CME 22.

estimated that it would need to hire at least two additional full time employees to review the reports, and that reviewing each report would take significantly longer than the 15 hours estimated in the NPRM.[293]

Commenters further discussed the reporting structure during the Second Comment Period. The Industry Group commented that the annual reports requirement was "ineffective, unnecessary, and redundant with other requirements to which registrants are subject. Additionally, the proposed reports will inundate DCMs with voluminous policies and procedures related to the development and compliance of algorithmic trading systems, as well as mountainous snapshots of stale qualitative risk parameter settings particularized to a given market participant that will be virtually impossible for a DCM to meaningfully assess."[294] The Industry Group stated that as an alternative, the Commission should require a certification process that affected parties materially comply with relevant aspects of the rule.[295] In addition, consistent with its recommendation of a two-level risk control structure with AT Persons/FCMs at one level, and DCMs as the second level, the Industry Group suggested a due diligence requirement in which FCMs must perform due diligence on customers that transmit orders without such orders going through FCM-administered risk controls.[296]

In its Second Comment Period letter, CME reiterated its opposition to the reporting structure as creating an unnecessary administrative burden without a corresponding benefit to market integrity.[297] Among other things, CME noted that DCMs

[293] MGEX 26.
[294] Industry Group 7.
[295] Id.
[296] Id. at 9.
[297] CME III 4.

would not have sufficient information about AT Persons' systems to meaningfully assess Regulation AT compliance, and DCMs would appear to be endorsing the policies and procedures of AT Persons if they receive compliance reports but remain silent.[298] CME also commented on the substantial costs of the report review program.[299] Finally, CME suggested a similar due diligence process where the clearing member who granted DEA to an AT Person (a "gatekeeper clearing member") should obtain certifications of compliance from their customers.[300]

C. Substance of New Proposal

In light of the concerns raised by commenters to NPRM proposed §§ 1.83 and 40.22, the Commission has determined to make several changes to the proposed rules. First, and most significantly, the Commission has eliminated the requirement that AT Persons and FCMs prepare compliance reports. The requirements proposed as NPRM §§ 1.83(a) (AT Person reports) and 1.83(b) (FCM reports) are withdrawn in Supplemental proposed § 1.83. However, the Commission has determined to retain the AT Person and FCM recordkeeping requirements, and such requirements proposed in the NPRM as §§ 1.83(c) and 1.83(d) are now re-numbered as §§ 1.83(a) and 1.83(b).

The Commission in this Supplemental NPRM has made conforming changes to § 40.22. Specifically, the NPRM required that DCMs review AT Person and FCM annual reports, identify deficiencies in AT Persons' and FCMs' compliance programs, and take remedial action as needed. The Commission has eliminated DCMs' obligation to review annual compliance reports. In place of that obligation, Supplemental proposed

[298] Id. at 4.
[299] Id.
[300] Id. at 5.

§ 40.22(a) now requires DCMs to periodically review AT Persons' and FCMs' programs for compliance with §§ 1.80, 1.81 and 1.82. The Commission expects that DCMs' periodic review programs would be similar to their existing programs for periodically reviewing members' and market participants' compliance with audit trail recordkeeping requirements.

Supplemental proposed § 40.22(b) (formerly § 40.22(d)) continues to require DCMs to implement rules requiring AT Persons and FCMs (now executing FCMs) to keep and provide to the DCM books and records regarding compliance with §§ 1.80, 1.81 and 1.82. Proposed § 40.22(c) replaces the previous requirement that DCMs review and evaluate such books and records with a more general requirement that DCMs require such periodic reporting from AT Persons and executing futures commission merchants as is necessary to fulfill the designated contract market's obligations pursuant to paragraph (a) of § 40.22.

Supplemental proposed § 40.22(d) provides that DCMs must require by rule that AT Persons and executing FCMs provide DCMs with an annual certification attesting that the AT Person or FCM complies with the requirements of §§ 1.80, 1.81, and 1.82, as applicable. Such annual certification shall be made by the chief compliance officer or chief executive officer of the AT Person or FCM and must state that, to the best of his or her knowledge and reasonable belief, the information contained in the certification is accurate and complete. The Commission believes that the annual certification requirement proposed in Supplemental proposed § 40.22(d) will be substantially less burdensome than the review of compliance reports proposed under NPRM proposed § 40.22. The Commission also believes that the periodic review program required by

Supplemental proposed § 40.22(a), and the annual certifications required by Supplemental proposed § 40.22(d), will together impose an important discipline on actors in the Algorithmic and Electronic Trading space to help ensure compliance with Regulation AT's key risk control and algorithm development provisions, including §§ 1.80, 1.81 and 1.82.

The Commission acknowledges the comments from Industry Group and CME suggesting an FCM-based due diligence program. The Commission will continue to consider such comments and whether such a structure should be incorporated into a final rule. However, at this time the Commission believes that the DCM is the appropriate entity to review the compliance programs of AT Persons. The DCM will have a broader perspective of the entire market compared to an FCM, and is better situated to ensure that there is a consistent baseline of sufficient controls across all AT Persons and executing FCMs.

D. Commission Questions

37. Do you agree with the elimination of the annual compliance report requirement? Do you believe that the current AT Person/executing FCM recordkeeping and DCM review program proposed rules will sufficiently ensure that AT Persons and executing FCMs have effective risk controls? Is there any aspect of Supplemental proposed §§ 1.83 and 40.22 that should be changed to better ensure that AT Persons and executing FCMs are implementing effective risk controls?

VIII. Additional Changes to NPRM Proposed Rules Under Consideration

The Commission is considering certain additional changes to the rules proposed in the NPRM, apart from the proposed rule text provisions set forth in this Supplemental

NPRM. The Commission preliminarily believes that such additional changes could be adopted without further notice and comment, since they do not impact new parties, create new obligations, or otherwise increase burdens. The following is a summary of certain discrete areas that are under consideration. The Commission emphasizes that it has yet to make final determinations with respect to the items below, and that their final disposition may depend in part on how the Commission proceeds with other proposals in the NPRM and Supplemental NPRM.

NPRM proposed § 1.3(tttt) defines the term Algorithmic Trading Compliance Issue.[301] The term is relevant to the pre-trade risk and other control requirements for AT Persons under NPRM proposed § 1.80, the testing requirements on AT Persons under proposed § 1.81(c), and the pre-trade and other risk controls for DCMs under NPRM proposed § 40.20. Several commenters noted that the scope of an Algorithmic Trading Compliance Issue should not include breaches of an AT Person's own internal requirements.[302] For example, SIFMA recommended that the definition be revised to remove references to an AT Person's internal policies to prevent unduly burdening DCMs and AT Persons with notifications of internal events that do not impact the market.[303] MFA commented that including violations of the AT Person's own internal requirements, or the requirements of the AT Person's clearing member, is too general and

[301] NPRM proposed § 1.3(tttt) defines "Algorithmic Trading Compliance Issue" to mean an event at an AT Person that has caused any Algorithmic Trading of such entity to operate in a manner that does not comply with the CEA or the rules and regulations thereunder, the rules of any designated contract market to which such AT Person submits orders through Algorithmic Trading, the rules of any registered futures association of which such AT Person is a member, the AT Person's own internal requirements, or the requirements of the AT Person's clearing member, in each case as applicable.

[302] See AIMA 8; Citadel 3; CME A-3; CTC 14; IAA 9; ICE 10; FIA Appendix A 5, 11; ISDA 4; MFA 13; SIFMA 3.

[303] SIFMA 3, 1; see also Citadel 3.

broad.[304] Citadel commented that the Commission should "focus on trading activity that can impact the proper functioning of the market, instead of purely internal events within a firm that do not impact other market participants, such as an inadvertent violation of an internal trading-related process."[305] CME indicated that applying a causation standard to internal policies may cause uncertainty.[306] In response to the concerns expressed by commenters, the Commission is considering limiting the scope of the term to violations of applicable law, including the Act and CFTC regulations. To that end, the Commission is considering whether to eliminate from NPRM proposed § 1.3(tttt) references to an AT Person's own internal rules, those of its clearing member, any DCM on which it trades, or an RFA.[307]

NPRM proposed § 1.3(uuuu) defines the term Algorithmic Trading Disruption.[308] The term is relevant to Regulation AT's pre-trade risk and other control requirements for AT Persons and FCMs that are clearing members for a DCO, as provided in NPRM proposed §§ 1.80 and 1.82(a), respectively. Several commenters asserted that the proposed definition is too broad[309] or lacks clarity.[310] Commenters also recommended excluding events originating within an AT Person from the scope of an Algorithmic

[304] MFA 13.
[305] Citadel 3.
[306] CME A-3-4.
[307] The Commission notes, however, that its regulation 166.3 requires each Commission registrant (except certain associated persons) to "diligently supervise" the handling by its partners, officers, employees, agents, and persons occupying a similar status or performing a similar function, of all commodity interest accounts carried, operated, advised, or introduced by the registrant, and all other activities of its partners, officers, employees, agents, etc. AT Persons would be included among the Commission registrants subject to § 166.3
[308] NPRM proposed § 1.3(uuuu) provides that the term "Algorithmic Trading Disruption" means an event originating with an AT Person that disrupts, or materially degrades, (1) the Algorithmic Trading of such AT Person, (2) the operation of the designated contract market on which such AT Person is trading or (3) the ability of other market participants to trade on the designated contract market on which such AT Person is trading.
[309] AIMA 9; CME A-4; MMI 2; SIFMA 3, 19; CME A-4; FIA Appendix A-5, A-6.
[310] CME A-4; FIA Appendix A-5, A-6.

Trading Disruption.[311] The Commission is considering potentially eliminating references in the definition to a disruption of an AT Person's own ability to trade, and limiting the scope of the term to disruptions of the market and others' ability to trade on it.

The Commission is also considering whether to make analogous changes to the defined term Algorithmic Trading Event. NPRM proposed § 1.3(vvvv) defined the term Algorithmic Trading Event to mean either an Algorithmic Trading Compliance Issue or an Algorithmic Trading Disruption. The term is used in NPRM proposed § 1.80, which required AT Persons to implement risk controls that are reasonably designed to prevent or mitigate an Algorithmic Trading Event.[312] The term is also used in NPRM proposed § 1.81(a) (requiring AT Persons to conduct regular back-testing using historical data to identify circumstances that may contribute to Algorithmic Trading Events), NPRM proposed § 1.81(b) (requiring AT Persons to conduct real-time monitoring of Algorithmic Trading to identify potential Algorithmic Trading Events), and NPRM proposed § 1.81(d) (requiring AT Persons to establish training procedures for communicating and escalating to appropriate personnel instances of Algorithmic Trading Events). Several commenters stated that the proposed definition of Algorithmic Trading Event is unnecessary[313] or overly broad.[314] Consistent with the proposed changes to NPRM proposed §§ 1.3(tttt) and 1.3(uuuu) described above, the Commission is considering clarifying in the final rules for Regulation AT that an AT Person's internal policies, or the

[311] SIFMA 3, 19; CME A-4; AIMA 2, 9; MMI 2.
[312] This provision now requires AT Persons to implement controls reasonably designed to prevent and reduce the potential risk of an Algorithmic Trading Event.
[313] MFA 15; MMI 2.
[314] SIFMA 3, 19.

disruption of its own Algorithmic Trading, are outside the scope of an Algorithmic Trading Event.

Additionally, the Commission is considering whether to modify certain requirements regarding the development, monitoring, and compliance of ATSs under NPRM proposed § 1.81. CME, MFA, AIMA and FIA commented that the requirement under NPRM proposed § 1.81(a)(1)(ii)[315] to test all changes to Algorithmic Trading code prior to implementation is too broad.[316] CME also raised concerns that this requirement would impose significant costs for AT Persons and DCMs.[317] MFA and AIMA recommended that this requirement be limited by a materiality standard.[318] FIA commented that "'any changes' should be clarified to be limited to any change that directly impacts source code associated with determining when and how to send an order or otherwise impact an order on a DCM."[319] FIA also commented that "'related systems' should be clarified to pertain only to those systems that have the ability to determine when and how to send an order or otherwise affect an order on a DCM."[320] The Commission has withdrawn the requirement under NPRM proposed § 1.81(a)(1)(ii) that AT Persons must test all Algorithmic Trading code and related systems on each DCM on which Algorithmic Trading will occur. The Commission is also considering whether to modify the requirement that AT Persons must test all changes to code by adding a materiality standard.

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[315] NPRM proposed §§ 1.81(a)(1)(ii) (requiring AT Persons to implement written policies and procedures for the testing of all Algorithmic Trading code and related systems and any changes to such code and systems prior to their implementation and that such testing must be conducted both internally within the AT Person and on each designated contract market on which Algorithmic Trading will occur.).
[316] CME A-16; MFA 19; AIMA 16; FIA 61.
[317] CME A-16.
[318] MFA 19; AIMA 16.
[319] FIA 61.
[320] Id.

The Commission is considering whether to modify the algorithm monitoring requirements under NPRM proposed § 1.81(b), which requires continuous real-time monitoring of ATSs.[321] Several commenters recommended changes to the proposed requirements for real-time monitoring. CME stated that "any final regulation should be flexible enough to allow the most reasonable approach for real-time monitoring that is proportional to the AT Person's size and risk profile."[322] FIA recommended that the Commission "only mandate that: (1) one or more specifically identifiable persons at an AT Person must have the authority to address system breakdowns that might cause an Algorithmic Trading Disruption; and (2) systems must be in place to help such persons monitor for potential problems and interact with each Algorithmic Trading system."[323] IAA commented that the monitoring and compliance requirements of § 1.81 should be replaced with a more general requirement for AT Persons to design a compliance program that is reasonably designed to meet the requirements of the rule. The Commission is considering whether to eliminate certain language in the NPRM preamble regarding CFTC expectations that the person monitoring an algorithm should simultaneously be engaged in trading.

The Commission is also considering whether to eliminate in its entirety NPRM proposed § 1.81(c)(2)(ii). The provision provided that each AT Person must implement written policies and procedures requiring a plan of internal coordination and communication between compliance staff of the AT Person and staff of the AT Person

[321] NPRM proposed § 1.81(b) provides, inter alia, that each AT Person shall implement written policies and procedures reasonably designed to ensure that each of its Algorithmic Trading systems is subject to continuous real-time monitoring by knowledgeable and qualified staff while such Algorithmic Trading system is engaged in trading.
[322] CME A-18.
[323] FIA 66.

responsible for Algorithmic Trading regarding Algorithmic Trading design, changes, testing, and controls, which plan should be designed to detect and prevent Algorithmic Trading Compliance Issues.

In addition, the Commission is continuing to evaluate comments regarding certain of the enumerated risk control mechanisms in the NPRM (and retained in this Supplemental). For example, the Commission is considering the appropriateness of a maximum execution frequency control at the DCM level. The Commission is also considering clarifying in any final rules it may adopt for Regulation AT that the requirements for market maker and trading incentive programs under NPRM proposed § 40.25 do not apply retroactively, i.e., to programs established prior to the Regulation AT effective date. In addition to proposing the changes to NPRM proposed rules set forth above, the Commission notes that it has determined to defer to a later date the final rules regarding self-trading[324] and disclosure and transparency of DCM trade matching systems.[325] The Commission anticipates finalizing those rules after finalizing the other rules proposed in the NPRM and this Supplemental NPRM.

D. Commission Questions

38. The Commission welcomes all comments regarding its consideration of potential amendments, deferral, or elimination of provisions proposed in the NPRM as discussed in this Section VIII of the Supplemental NPRM.

[324] See NPRM proposed § 40.23.
[325] See NPRM proposed § 38.401(a).

IX. Related Matters

A. Cost-Benefit Considerations

1. The Statutory Requirement for the Commission to Consider the Costs and Benefits of its Actions

Section 15(a) of the CEA requires the Commission to "consider the costs and benefits" of its actions before promulgating a regulation under the CEA or issuing certain orders.[326] Section 15(a) further specifies that the costs and benefits must be evaluated in light of the following five broad areas of market and public concern: (1) protection of market participants and the public; (2) efficiency, competitiveness, and financial integrity of futures markets; (3) price discovery; (4) sound risk management practices; and (5) other public interest considerations. The Commission considers the costs and benefits resulting from its discretionary determinations with respect to the section 15(a) factors below. As a general matter, the Commission considers the incremental costs and benefits of the new and amended rules proposed in this supplemental notice of proposed rulemaking for Regulation Automated Trading,[327] taking into account what it believes is industry practice given the Commission's existing regulations and industry best practices, as described below. Where reasonably feasible, the Commission has endeavored to

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[326] 7 U.S.C. 19(a).

[327] As explained, infra, on December 17, 2015, the Commission published in the Federal Register a notice of proposed rulemaking ("NPRM") proposing a series of risk controls, transparency measures, and other safeguards to enhance the safety and soundness of automated trading on all designated contract markets ("DCMs") (collectively, "Regulation Automated Trading" or "Regulation AT"). Regulation Automated Trading, Proposed Rule, 80 FR 78824 (Dec. 17, 2015) (hereinafter "NPRM").

Through this supplemental notice of proposed rulemaking for Regulation AT ("Supplemental NPRM"), the Commission is proposing certain modifications and additions to rules set forth in the NPRM. This discussion refers to rules originally proposed in the NPRM as "NPRM proposed" and rules proposed in the Supplemental NPRM as "Supplemental proposed."

estimate quantifiable costs and benefits. The Commission also identifies and describes costs and benefits qualitatively.

2. Comments Regarding Costs and Benefits of Regulation AT[328]

a. Pre-Trade Risk Controls and Other Measures

Some commenters addressing Regulation AT requirements generally (including pre-trade risk controls, recordkeeping, and compliance report costs) indicated that costs are substantially higher than estimated in the proposed rule and the articulated benefits do not justify the costs.[329] As to DCMs, FIA commented that certain of the Commission's proposed pre-trade and other risk controls for DCMs are overly prescriptive and would result in costly investment in controls that would not be sufficiently flexible to adapt to further market evolution.[330]

b. Testing and Supervision of Automated Systems

Rules applicable to DCMs: CBOE recommended that any requirements for testing environments be principles-based and not prescriptive in order to accommodate the current best practices of the industry and to avoid requiring the development of costly new systems that are not currently in existence at DCMs.[331]

ICE, CME, and FIA each stated that the requirement to have DCM test environments offer simulation of production trading, contained in NPRM proposed § 40.21, was impractical. ICE stated that requiring DCM test environments to support the simulation of real market conditions or historical transaction, order or message data in

[328] This summary of comments is limited to those relevant to the costs and benefits of the Supplemental proposed rules that are the subject of this Supplemental NPRM. Comments addressing the costs and benefits of NPRM proposed rules not modified by this Supplemental NPRM will be included in the final rulemaking release for Regulation AT.
[329] See, e.g., FIA 1-3; 10-11; A-78; MFA 34-25; QIM 3; SIFMA 20.
[330] FIA A-41.
[331] CBOE 6-7.

its test environment is not practical, and that any benefits that this type of simulation may produce would not be commensurate with the substantial cost associated with developing it. Without the actual interaction of real trades and the wide range of market conditions that can occur in a live trading environment, ICE stated that it is unclear what benefits would arise from this type of simulation. ICE also commented that the implementation would require significant financial investment to develop and maintain.[332]

CME commented that the Commission fails to clearly define the term "simulate" in NPRM proposed § 40.21. In addition, CME stated if the Commission interprets Regulation AT to require DCMs to maintain and provide a test environment that includes a production parallel facility that utilizes real-time or near real-time market and transaction data for testing of a market participant's algorithm, the Commission's cost analysis of NPRM proposed § 40.21 is incorrect.[333]

FIA commented that although it is possible to include historical data in test environments that can be replayed to simulate stress conditions in DCM stress environments, such environments would not be able to interact with the market. As a result, FIA asserted that a true simulation is not possible. Requiring historical data would add costs without producing the intended improvement in the DCM test environment. FIA also indicated that a test environment as prescribed in NPRM proposed § 40.21 would not be possible within the bounds of reasonable investment, and that any costs would far outweigh the purported benefits.[334]

[332] ICE A-10.
[333] CME 35.
[334] FIA A-44-A-45.

FIA and CME both stated that the costs of NPRM proposed § 1.81 exceed the benefits. CME stated that the prescriptive nature of the requirements set forth in NPRM Proposed § 1.81 will introduce significant cost and inefficiencies without the benefit of reduced risk to DCMs and market participants. Moreover, FIA and CME commented that the Commission has significantly underestimated the cost to both market participants and DCMs to support performance level production testing.[335] FIA also stated that the proposed prescriptive requirements with respect to DCM test environments are cost prohibitive with no justifiable benefit.[336]

CME further commented that back testing is a complex and costly exercise with a limited scope for mitigating risk; therefore, NPRM proposed § 1.81 should not be adopted.[337] CME asserted that the costs to AT Persons and DCMs to establish the extensive infrastructure needed for back testing far exceed the benefits. CME also stated that requiring AT Persons to test "any" change with DCMs, as set forth in NPRM proposed § 1.81(a)(1)(ii), is too vague. Moreover, CME commented that the requirement was too expansive in that it would encompass testing for changes to systems which would not reduce risk to the AT Person or the overall markets, but would instead be a significant cost burden for AT Persons and the DCM.[338] CME further indicated that requiring DCMs to provide test environments that simulate production performance levels would be costly and less effective than the current market practice, whereby AT Persons design and develop their own scaled environment with the support of DCMs.[339]

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[335] CME A-16.
[336] FIA A-38, A-39 and A-44.
[337] CME A-15
[338] CME A-16.
[339] Id.

TT commented that the testing requirements under NPRM proposed § 1.81(a) "should focus on the output of an Algorithmic Trading system or software rather than the source code underlying such systems or software, which would yield no material benefit."[340]

Rules applicable to AT Persons: A Roundtable participant stated that Regulation AT is "a very, very heavy burden" and "an extreme cost to be an AT person."[341] CTC commented that NPRM proposed § 1.81(a) would require CTC to draft, implement, and test a whole new series of policies. Altering its procedures to conform to the regulation, CTC explained, would be costly and would not provide sufficient benefit to justify the costs. CTC further indicated that the cost-benefit analysis contained in the NPRM fails to adequately explain the benefits, only citing an event involving Knight Capital. According to CTC, the event "is a threadbare justification for imposing prescriptive requirements on AT Persons." CTC further stated that proposed § 1.81(b), which requires AT Persons to provide for continuous, real-time monitoring of ATSs, entails significant staffing and other resource costs. CTC commented that real-time monitoring is a standard that is impossible to meet.[342] CTC proposed "near real time" as an alternative standard.[343]

FIA, SIFMA, and Mercatus objected to the rule requiring monitoring of algorithmic trading by a natural person separate from the trader. FIA stated that hiring an activity monitor that is independent of the trader would not be operationally efficient or

[340] TT III 1.
[341] See CME, Roundtable Tr. 28:12-18.
[342] CTC 14.
[343] Id. at 12-13.

reasonable from a cost perspective.[344] SIFMA also noted that requiring separate monitors to those implementing a training strategy is overly burdensome and inconsistent with typical CPO/CTA trading behavior. SIFMA argued that the requirement to "oversee a trader's actions continuously and in real time is a burdensome measure that is not common practice in the industry and may not be capable of being accomplished fully." Instead, SIFMA stated that traders would have the appropriate monitoring knowledge and can respond best in real time.[345]

Mercatus argued that requiring the separation of algorithmic monitoring and trading would create undue burdens on small firms. Specifically, Mercatus stated that "the required separation of trading and monitoring functions is akin to requiring that every firm engaged in algorithmic trading have a dedicated compliance person. Further burdening small firms, the Commission requires 'staff of the AT Person to review ATSs in order to detect potential Algorithmic Trading Compliance Issues' and specifies that 'such staff must include staff of the AT Person familiar with' the relevant laws, regulations, and rules. This language would seem to preclude the use of outside consultants, which could be a more affordable method of compliance for small firms." [346]

MFA argued that a separate physical structure for algorithm testing would be unnecessarily burdensome to smaller AT Persons. In contrast to physical separation, MFA commented that virtual separation (ensuring that testing software does not connect to active markets) rather than physical separation, would reduce costs and more easily allow for the sharing of components between test and production environments such as

[344] FIA A-77.
[345] SIFMA 16
[346] Mercatus 4.

"market data infrastructure or reference data files." MFA also noted concerns with code testing, stating that the requirement is broad. MFA pointed out that only material changes should be required to be tested. MFA stated that it is not uncommon for CTAs and CPOs to make minor adjustments to certain parameters embedded in their investment trading software on a daily basis, including administrative changes, or enhancements.[347]

SIFMA commented that the definition of AT Person extends to systems in which trades are communicated to the FCM/other trader for execution. SIFMA indicated that such execution management systems are often not under the development or control of the CPO/CTA and therefore cannot be fully monitored by them. In addition, SIFMA stated that CPO/CTAs may make use of routing software (AORSs) provided by the FCM that often have risk controls built in.[348]

FIA commented that the CFTC needs a better understanding of, among other things, the anticipated benefits and actual costs of the proposed requirements for policies and procedures for the development, testing, deployment, and monitoring of ATSs.[349] FIA further asserted that several of the requirements in NPRM proposed § 1.81(a)–(d) are not standard industry practice and would impose costs on AT Persons, including costs stemming from the hiring of additional staff. In addition, FIA commented that the rules would require extensive narrative documentation, testing of every change to an ATS at every DCM, historical back-testing of all changes to source code, separation of the trading function and the monitoring function associated with Algorithmic Trading, and

[347] MFA 18-19.
[348] SIFMA 4-5, 16.
[349] FIA 3-4.

documentation of system strategy and design independently of the software responsible for executing the strategy.[350]

c. Requirements to Maintain and Make Available Source Code Records

In support of the NPRM proposed rules regarding source code, Better Markets commented that "the clear and many benefits arising from the Commission's ability to perform post-mortems after disruptive market events far outweigh any legitimate concerns, which haven't been proffered."[351] In contrast, other commenters expressed concerns regarding potential costs regarding source code recordkeeping. CME commented that maintaining a source code repository would impose significant burdens and costs on any entity that does not currently do so.[352] CME further commented that the CFTC has not demonstrated any need for AT Persons to make source code available, "let alone a need that outweighs the cost and confidentiality concerns attendant to such a requirement."[353]

The Industry Group commented that the proposed source code requirement "puts highly proprietary information at risk without measurable benefits."[354] FIA stated that the requirement in NPRM proposed § 1.81(a)(v) for AT Persons to maintain a source code repository in accordance with § 1.31 is impractical and unduly burdensome.[355] FIA noted that the proposed rule captures Algorithmic Trading source code as well as the source code of "related systems" in its retention and access requirements.[356] FIA asserted that "related systems" is vague and could encompass all, or nearly all, source

[350] FIA A-72.
[351] Better Markets III 3.
[352] CME 38.
[353] CME III 9.
[354] Industry Group 6 (emphasis omitted).
[355] FIA A-54.
[356] Id. at A-55.

code utilized by an AT Person, including, but not be limited to, source code associated with back-office, portfolio risk management, monitoring, and user interfaces. FIA indicated that such a broad interpretation would dramatically increase the cost of complying with the proposed rules. Relatedly, a Roundtable participant noted that storage of source code is not free.[357]

AIMA commented that source code "provides very little supervisory or investigative utility to anyone seeking to 'read' it" and that accessing source code "without a specific court-upheld reason would simply risk the commercially sensitive IP of AT Persons without providing any additional benefit."[358] The Chamber of Commerce asserted that "the CFTC has not provided an estimate of the costs for hiring qualified developers that could actually analyze the proprietary source code, meaning that the CFTC currently does not know how much it would even cost to review information within its possession."[359] The Chamber of Commerce further asserted that the proposed source code requirements would "not provid[e] any tangible benefit to the CFTC."[360]

KCG commented that "it seems clear that the risks (and costs) of allowing on-demand access to proprietary source code outweigh any potential benefit."[361] Similarly, MGEX also expressed concern that the costs of the proposed source code requirement outweigh the benefits.[362] MMI commented that "the costs associated with creating a new regulatory requirement and the risks associated to the disclosure of such information [i.e., source code] to regulators (and perhaps inadvertently to the public) defy an acceptable

[357] AQR, Roundtable Tr. at 281:9-10.
[358] AIMA III 5.
[359] Chamber of Commerce III 4.
[360] Chamber of Commerce III 6.
[361] KCG III 5.
[362] MGEX III 7.

cost-benefit analysis of the proposed § 1.81(a)."[363] Finally, QIM asserted that the proposed source code requirement "would not provide the benefits envisioned by the Commission."[364]

d. Requirement to Submit Compliance Reports and Other Related Algorithmic Trading Requirements

Costs and Benefits to DCMs: ICE commented that the burden on DCMs to collect and review the proposed annual reports is significant. ICE indicated that undertaking the type of review necessary to verify and evaluate the information contained in the proposed annual reports would be both costly and resource intensive. The number of AT Persons and clearing FCMs that would be required to file annual reports with DCMs would far exceed the number of clearing FCMs that are currently reviewed under DSRO audit today. Further, ICE stated that DCMs do not have the resources or qualified expertise that would be required to conduct a comprehensive review of the proposed annual reports and the algorithms developed and operated by AT Persons. ICE recommended that the annual report requirement set forth in NPRM proposed § 1.83 be replaced with a certification process.[365]

CME commented that the annual compliance report requirement creates an unnecessary administrative burden on all parties involved without generating a significant benefit.[366] CME asserted that the information in the reports would be stale and that CME would need to hire additional staff with the expertise to evaluate the reports. Moreover, CME indicated that compliance reports would be onerous and duplicative for clearing

[363] MMI III 2-3.
[364] QIM III 2.
[365] ICE A-31.
[366] CME 20; CME III 4.

FCMs, as they already undergo significant review by their DSRO and clearing organizations. CME argued that further unnecessary duplication would result from AT Persons submitting reports to multiple DCMs.

With regard to specific cost estimates, CME stated that the Commission has significantly underestimated the ongoing costs to DCMs of complying with the NPRM's requirement to periodically review AT Person and clearing FCM compliance reports and books and records, and to identify and remediate any insufficient mechanisms, policies and procedures discovered. In the NPRM, the Commission estimated that it would cost each DCM approximately $244,080 per year to comply with NPRM proposed § 40.22. CME believes this estimate is deficient by approximately 50% and estimated the annual cost for each of its four DCMs to be closer to $525,000, assuming that across all four DCMs, approximately 650 entities would come within the scope of the proposed compliance report requirements and that each entity would be reviewed once every four years (across all four DCMs). CME estimated that it would take approximately one month for a full-time employee to complete each review. According to CME, the biggest flaw in the CFTC's analysis is its assumption that new full-time employees dedicated to compliance with § 40.22 would not be required. Moreover, for the compliance report to provide any meaningful benefit to market integrity, DCM personnel would need to spend far more than 15 hours reviewing each report and related books and records.[367]

MGEX commented that costs are likely to be higher for DCMs than those calculated by the Commission, especially for the requirement that DCMs review, analyze

[367] CME at 22.

and remediate compliance programs of AT Persons.[368] In extremis, elevated costs could leave the marketplace in a situation of reduced competition between DCMs. MGEX provided estimates for the costs associated with DCM compliance, and stated that the per-form review time would exceed the Commission's 15 hour estimate because such forms would not be standardized. MGEX indicated that the review process would require the hiring of at least two additional full time employees. Finally, MGEX argued that these costs are especially burdensome for smaller DCMs, stating: "[T]he costs associated with new compliance obligations disproportionally impacts existing DCMs. With every new compliance obligation, there are new costs. For smaller DCMs, the cost are often more severe. This is because smaller DCMs do not have the benefit of large staffs and resources to leverage. Put differently, it is more likely smaller DCMs will have to hire additional staff to meet new compliance obligations, and therefore their cost assessment is fundamentally different than larger DCM."[369]

Costs and Benefits to Market Participants and FCMs: MFA commented that Regulation AT reporting, compliance and recordkeeping costs far outweigh the benefits, and proposed that reporting/compliance could be incorporated in the NFA review program which is already CPO/CTA common practice.[370]

FIA recommended that each AT Person periodically review and test the effectiveness of its policies and procedures related to Algorithmic Trading and take prompt action to remedy any deficiencies.[371] However, because there is no materiality threshold associated with the remediated deficiencies in the proposed rule, FIA does not

[368] MGEX 25-26.
[369] Id. at 27.
[370] MFA 9
[371] FIA A-63.

support documenting each incident of remediation. FIA indicated that many deficiencies are immaterial and the costs associated with their documentation would outweigh the marginal benefit, if any. In addition, FIA asserted that extensive documentation of policies and procedures associated with trading system design, development, testing, operations, and compliance does little to reduce any perceived risks associated with Algorithmic Trading. FIA stated that the application of sound policies and procedures, rather than the documentation of those policies and procedures, has a material impact on reducing risk.[372]

FIA opposes requiring AT Persons or clearing member FCMs to prepare annual reports because, among other things, the burden of preparing and filing an annual report may be extensive, especially if Regulation AT applies to AT Persons of different sizes and complexities.[373] FIA noted that IBs, CTAs, CPOs who are small entities may be disproportionately adversely impacted by Regulation AT. FIA also argued that since FCMs are already required to prepare CCO Annual Reports under § 3.3 and subject to risk management requirements under §§ 1.11 and 1.73, there is no marginal benefit in requiring FCMs to produce an additional annual report. FIA expects that such a report would cost substantially higher than the Commission's estimates.

CME commented that the "proposed requirement that AT Persons and clearing FCMs prepare and submit extensive annual compliance reports to DCMs creates an unnecessary administrative burden on all parties involved without providing significant benefit to market integrity."[374] In addition, a Roundtable participant representing an

[372] Id. at A-73.
[373] Id. at A-91-A-92.
[374] CME III 4.

FCM estimated that the compliance costs for Regulation AT would be $1 million annually for the participant's firm.[375] Another Roundtable participant questioned whether all FCMs could afford that cost and suggested that "we could potentially lose" some FCMs.[376]

e. Requirements for Certain Entities to Register as New Floor Traders

MFA commented that, as currently proposed, Regulation AT would apply to the majority of futures market participants, significantly increasing compliance costs relative to a framework where risk controls are applied at the DCM and clearing-FCM level. Specifically, MFA stated that it "is concerned that the Regulation AT framework is overly broad and elaborate, which would make implementation expensive and burdensome for market participants and regulators. Regulation AT, as proposed, would regulate – in the same manner – virtually any market participant that uses any automation with respect to trading, without taking into consideration the type of automation or the different category, business or operational size of the market participant. Based on the Commission's own cost-benefit and regulatory flexibility analyses, we believe this is not the Commission's intent." MFA acknowledged that risk controls are appropriate for all entities, but requiring the same risk controls at all levels of trading is unreasonably costly.[377]

The Commercial Alliance commented that a quantitative measure to identify the population of AT Persons "would require the CFTC to revise the metric frequently" and such revisions would "increase costs for market participants to update their IT systems

[375] ABN AMRO, Roundtable Tr. 176:13-17.
[376] OneChicago, Roundtable Tr. 197: 11-15.
[377] MFA 5-6.

and monitoring practices accordingly, which could cause a lag in the markets and reduce liquidity."[378] The Commercial Alliance further commented that a registration framework for AT Persons would "impose significant cost burdens to market participants" but would not provide any "additional regulatory benefit."[379]

3. The Commission's Cost-Benefit Consideration of Regulation AT – Baseline Point

In the NPRM, the Commission took account of the incremental costs and benefits of the proposed rules relative to what it understood as the general industry status quo conditions (reflective of the Commission's existing regulations and industry best practices). As noted in the NPRM, elements of Regulation AT sought to codify existing norms and best practices of trading firms, FCMs, and DCMs, meaning that the costs and benefits to firms already satisfying these norms and employing the proposed codified practices would be minimal. The Commission, however, also recognized in the NPRM that some individual firms currently may not be operating at industry best practice levels; for such firms, costs and benefits attributable to the proposed regulations will be incremental to a lower status quo baseline.

To assist the Commission and the public in assessing and understanding the economic costs and benefits of the Supplemental proposed rules as revised in this Supplemental NPRM, the Commission has, in general, analyzed the costs of the proposed regulations as compared to the analogous regulations as proposed in the original

[378] Commercial Alliance III 3.
[379] Id. at III 6.

NPRM.[380] In doing so, the Commission notes how the Supplemental proposed rules alter the previous NPRM assessment relative to the status quo baseline. As noted in the NPRM, in many instances, full quantification of the costs is not reasonably feasible because costs depend on the size, structure, and practices of trading firms, FCMs and DCMs. Within each category of entity, the size, structure and practices of such entities will vary markedly. In addition, the quantification may require information or data, some of which may be proprietary, that the Commission lacks means to access. Further, with exceptions noted in the IX.A.2 discussion of cost-benefit comments, interested parties have not provided information in response to the Concept Release and NPRM to assist the Commission in quantifying costs. The Commission notes that to the extent that the regulations proposed in this rulemaking result in additional costs, those costs will be realized by trading firms, FCMs and exchanges in order to protect market participants and the public. Finally, in general, full quantification of the benefits of the proposed rule is also not reasonably feasible, due to the difficulty in quantifying the benefits of a reduction in market disruptions and other significant market events due to the risk controls and other measures proposed in Regulation AT.

4. The Commission's Cost-Benefit Consideration of Regulation AT – Cross-Border Effects

The Commission notes that the consideration of costs and benefits below is based on the understanding that the markets function internationally, with many transactions involving U.S. firms taking place across international boundaries; with some Commission

[380] The Commission notes that the costs and benefits of NPRM § 1.81(vi), regarding the source code and log file retention, were not explicitly discussed in the NPRM. Therefore, as discussed below, for Supplemental proposed § 1.84, the Commission is using current industry practice as the baseline.

registrants being organized outside of the United States; with leading industry members typically conducting operations both within and outside the United States; and with industry members commonly following substantially similar business practices wherever located. Where the Commission does not specifically refer to matters of location, the below discussion of costs and benefits refers to the effects of the proposed rules on all activity subject to the proposed and amended regulations, whether by virtue of the activity's physical location in the United States or by virtue of the activity's connection with or effect on U.S. commerce under CEA section 2(i).[381] In particular, the Commission notes that some AT Persons are located outside of the United States.

5. Introduction: the NPRM and Supplemental NPRM for Regulation AT

The consideration of costs and benefits for this Supplemental NPRM for Regulation AT builds on the cost-benefit considerations contained in the NPRM. Regulation AT reflects a comprehensive effort to reduce risk and increase transparency across algorithmic order origination and electronic trade execution on all U.S. futures exchanges. The proposed rules, both in the NPRM and the Supplemental NPRM, seek to modernize the Commission's regulatory regime, keep pace with evolving markets and technologies, and to promote the continued safety and soundness of trading on all contract markets. The Commission is endeavoring, through this Supplemental NPRM, to incorporate persuasive comments received during numerous opportunities for public comment, and to address concerns raised by market participants including concerns related to the costs and benefits of Regulation AT as proposed in the NPRM. Many of

[381] 7 U.S.C. 2(i).

the changes in the Supplemental NPRM are designed to mitigate cost concerns while retaining the important benefits of Regulation AT. For example, as discussed below, the Commission is proposing to reduce the number of levels at which risk controls are typically applied to two (the DCM and either the FCM or AT Person) from three (the DCM, FCM, and AT Person) and proposing a volume threshold to limit the number of AT Persons under the Supplemental NPRM relative to the number of AT Persons under the NPRM. Both of these changes are designed to reduce costs while retaining the essential benefits associated with the risk controls and the rules applicable to AT Persons.

6. Proposed New Definitions and Changes to NPRM Proposed Definitions

The Commission proposes in this Supplemental NPRM new defined terms "Electronic Trading" and "Electronic Trading Order Message" as well as "Algorithmic Trading Source Code." The Commission also proposes to modify certain definitions proposed in the NPRM, including "Direct Electronic Access" ("DEA") and "AT Order Message." Finally, the Commission in this Supplemental NPRM changes various references in Regulation AT from "clearing member" to "executing" FCM. The Commission believes that these definitions and changes in terminology do not impose costs or confer benefits in and of themselves. However, as discussed below, changes in definition or new definitions may affect the costs and benefits of rules where defined terms are used.

7. Requirements for AT Persons

a. Summary of Proposal

The Commission proposes changes to modify the definition of AT Person. Pursuant to Supplemental proposed § 1.3(xxxx), a market participant may fall under the definition of AT Person in one of three ways. First, the category of AT Persons includes persons registered or required to be registered as an FCM, floor broker, swap dealer, major swap participant, commodity pool operator, commodity trading advisor, or introducing broker that (1) engages in Algorithmic Trading and (2) satisfies the volume threshold of 20,000 contracts traded per day over a six month period under Supplemental proposed § 1.3(x)(2).[382] Second, AT Persons include New Floor Traders under Supplemental proposed § 1.3(x)(1)(iii).[383] Such New Floor Traders must engage in Algorithmic Trading, utilize DEA under the revised definition,[384] and satisfy the volume threshold under Supplemental proposed § 1.3(x)(2). Third, a person who does not satisfy either of the other two prongs of the AT Person definition may nevertheless elect to become an AT Person, provided that such person registers as a floor trader and complies with all requirements of AT Persons pursuant to Commission regulations.[385] Further, Supplemental proposed § 1.3(x)(4) contains an anti-evasion provision prohibiting the trading of contracts through multiple entities for the purpose of evading the registration requirements imposed on New Floor Traders under § 1.3(x)(3), or to avoid meeting the definition of AT Person under § 1.3(xxxx).

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[382] See Supplemental proposed § 1.3(xxxx)(1)(i).
[383] See Supplemental proposed § 1.3(xxxx)(1)(ii).
[384] Under the revised definition in § 1.3(yyyy), DEA includes any electronic order submissions to a DCM, unless the order is first received by an FCM from a separate natural person by means of written or oral communication prior to being submitted to the DCM by the FCM.
[385] See Supplemental proposed § 1.3(xxxx)(2).

Under the volume threshold, if a floor trader or other registrant who is a potential AT Person (including other entities under common control) trades an aggregate average daily volume on electronic trading facilities across all products and all DCMs of at least 20,000 contracts, including for a firm's own account, the accounts of customers, or both,[386] over a six-month period (either January-June or July-December), that registrant will be an AT Person.

Further, under NPRM proposed § 170.18, AT Persons also must register for membership in at least one RFA. Supplemental proposed § 170.18 clarifies that an AT Person not yet a member of an RFA must submit an application for membership in at least one RFA within 30 days of such registrant satisfying the volume test set forth in Supplemental proposed § 1.3(x)(2).

Finally, under Supplemental proposed § 1.3(xxxx)(2), an entity may voluntarily choose to become an AT Person even if it does not otherwise meet the definition of AT Person by choosing to register as a floor trader and applying for membership with an RFA.

b. Costs

The NPRM's cost-benefit considerations for rules applicable to AT Persons, and for rules on other market participants that depend on the number of AT Persons (i.e., § 40.22 DCM compliance report review program), were based on an estimate of 420 AT Persons. That estimate was based on a sample of order messages sent to DCMs and was

[386] As discussed above in Section II(C), New Floor Traders who are not otherwise registered with the Commission would be expected to trade only for their own accounts, not on behalf of customers. Absent any trading for a customer account consistent with the Act and Commission regulations, New Floor Traders would therefore be expected to apply the volume threshold test solely to their proprietary trading volume.

based on the NPRM proposed definition of DEA.[387] This data included new orders, modifications to orders, and cancellations, and the methodology for estimating that number was specified in the NPRM.[388]

In response to comments asserting that the actual number of AT Persons under the proposed rule would be much larger than the 420 entities estimated the Commission, the Commission is proposing a volume threshold to limit the number of AT Persons. The volume threshold would be set at 20,000 contracts aggregated across a market participant's own account, the accounts of customers, or both, over a six-month period. The Commission estimates that the proposed volume threshold will reduce the number of AT Persons to approximately 120.

In order to derive this estimate, the Commission made use of daily trading audit trail data, for futures and options on futures, received from each DCM. Because the volume threshold is based on activity within a semi-annual period, the Commission calculated the average activity of individual firms during the first half of 2016 and used these aggregate numbers as an activity benchmark. Aggregating this activity across the DCMs for which the Commission had firm identification provided a basis for estimating the number of potential AT Persons. The Commission notes that its data provides a significantly comprehensive, but not a full, identification of the firms associated with each trade; in other cases, the firm associated with a trade may be the broker rather than the principal. For these reasons, the Commission estimate for the number of AT Persons may omit some firms that would meet the volume threshold requirements.

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[387] Under NPRM proposed § 1.3(yyyy), DEA was defined as an arrangement where a person electronically transmits an order to a DCM, without the order first being routed through a separate person who is a member of a DCO to which the DCM submits transactions for clearing.
[388] NPRM at 78884.

The Commission notes that the definition of "Direct Electronic Access" is an element of the definition of "floor trader" and, thus, AT Person. The Commission is modifying the definition of DEA. Under Supplemental proposed § 1.3(yyyy), DEA includes any electronic order submissions to a DCM, unless the order is first received by an FCM from an unaffiliated natural person by means of written or oral communication prior to being submitted to the DCM by the FCM. This definition, in and of itself, is broad enough to potentially include most participants on DCMs. However, merely meeting the definition of DEA will not impose costs on market participants trading for their own account who are not AT Persons; that is, to incur costs, they must also engage in Automated Trading and meet the volume threshold.

The clarifying changes to Supplemental proposed § 170.18 should not materially affect the costs associated with the RFA membership requirement for AT Persons. Supplemental proposed § 1.3(xxxx)(2), which permits an entity to voluntarily become an AT Person, does not impose any mandatory costs since it does not require anyone who otherwise does not meet the definition of AT Person to become an AT Person. An entity that does voluntarily become an AT Person presumably has determined that the benefits of doing so warrant accepting the costs imposed on AT Persons.

c. Benefits

The volume threshold and changes to the definition of AT Person will limit the number of firms subject to Regulation AT while preserving the benefits of Regulation AT for the larger firms trading on DCMs. The Commission believes that the benefits associated with requirements such as risk controls, testing and monitoring, recordkeeping, and other provisions applicable to AT Persons are greatest for this subset

of market participants because errors related to malfunctions at the firms with highest activity will likely have the largest impact on other market participants and the market as a whole. As evidence for this, FIA indicated in its December 2013 response to the Concept Release that most, if not all, large automated firms have extensive risk controls across all of their algorithmic activity, often calibrated at multiple levels, along with other quality control schemes to minimize the chance of error.[389] Such firms, understanding the effect they may have on the marketplace due to unanticipated behavior, have voluntarily chosen to incorporate measures similar to those required in Regulation AT to mitigate these risks. The anti-evasion provisions will help ensure that entities that should be AT Persons are not able to readily avoid AT Person status by trading through multiple entities.

The clarifying changes to Supplemental proposed § 170.18 should not materially affect the benefits associated with the RFA membership requirement for AT Persons. Supplemental proposed § 1.3(xxxx)(2), which permits an entity to voluntarily become an AT Person, provides an entity that does not otherwise meet the definition of AT Person with the flexibility to become an AT Person so that it can realize the benefits of implementing its own risk controls, rather than accepting an FCM's risk controls.

d. Consideration of Alternatives

The Commission considered not adopting a registration requirement for AT Persons in response to comments. This would have made the definition of DEA and the volumetric threshold unnecessary. However, the Commission continues to believe that there are certain larger market participants whose automated trading represents an

[389] FIA, Comment in Response to Concept Release (Dec. 11, 2013).

elevated risk to market integrity and who, for the protection of market participants and the public, should therefore be subject to enhanced oversight relative to other market participants. The Commission also considered not using a volume threshold or other quantitative threshold (as suggested by some commenters) and instead responding to commenter concerns that the NPRM would capture substantially more than 420 AT Persons by revising the definition of DEA so that the term captures a narrower scope of trading activity. The Commission was unable to identify a definition of DEA that would reduce the number of AT Persons and provide a low-cost way for entities to determine whether they are AT Persons as defined under Regulation AT. The Commission thus determined to propose a quantitative threshold (i.e., the volume threshold test), while at the same time defining DEA broadly.

The Commission considered other quantitative metrics including tests proposed by ESMA for identifying high-frequency traders in European markets, i.e., average resting order times and daily number of messages sent by a trading entity. However, the new AT Person category is intended to ensure that risk management, testing and monitoring standards are sufficiently high for the class of market participants who are largest, regardless of strategy or firm type. The Commission believes that volume is a key element of market processes such as price discovery and risk transfer, is simpler than other potential metrics, and can be calculated at lower cost than metrics such as average order resting times and message frequency.

The Commission also considered volume thresholds at other levels higher and lower than 20,000 contracts. However, the Commission has preliminarily determined that 20,000 contracts will result in the registration of those firms for whom Regulation

AT proposed rules applicable to AT Persons are needed most and will provide the greatest benefit.

e. Commission Questions

39. Beyond specific questions concerning specific Supplemental proposed rules interspersed throughout its discussion, the Commission generally requests comment on all aspects of its consideration of costs and benefits of this Supplemental NPRM, including: (a) identification, quantification, and assessment of any costs and benefits not discussed therein; (b) whether any of the proposed regulations may cause FCMs or DCMs to raise their fees for their customers, or otherwise result in increased costs for market participants and, if so, to what extent; (c) whether any category of Commission registrants will be disproportionately impacted by the proposed regulations, and if so whether the burden of any regulations should be appropriately shifted to other Commission registrants; (d) what costs, if any, would likely arise from market participants engaging in regulatory arbitrage by restructuring their trading activities to trade on platforms not subject to the proposed regulations, or taking other steps to avoid costs associated with the proposed regulations; (e) quantitative estimates of the impact on transaction costs and liquidity of the proposals contained herein; (f) the potential costs and benefits of the alternatives that the Commission discussed in this release, and any other alternatives appropriate under the CEA that commenters believe would provide superior benefits relative to costs; (g) data and any other information to assist or otherwise inform the Commission's ability to quantify or qualitatively describe the benefits and costs of the proposed rules; and (h) substantiating data, statistics, and any

other information to support positions posited by commenters with respect to the Commission's consideration of costs and benefits.

40. As noted above, some commenters opined that the NPRM would capture substantially more than 420 AT Persons. Is there a definition of DEA that should be adopted that would appropriately limit the scope of the definition of AT Person, without use of a quantitative threshold? Further, is there a definition of DEA that would serve as a low-cost method of enabling entities to determine if they are AT Persons?

41. Are there quantitative thresholds other than volume that would provide a superior cost-benefit profile to the Commission's proposal?

42. Would a volume threshold at levels higher or lower than 20,000 contracts provide a superior cost-benefit profile to the Commission's proposal?

43. Should volume threshold calculations exclude or weigh differently spread trades or any other types of trades, and if so, should the volume threshold level be adjusted? What are the costs and benefits of excluding or weighing differently certain types of trades?

8. Source Code Retention and Inspection Requirements

a. Summary of New Proposal

Under the NPRM proposal, each AT Person was required to maintain a "source code repository" to manage source code access, persistence, copies of all code used in the production environment, and changes to such code. Such source code repository was required to include an audit trail of material changes to source code that would allow AT Persons to determine, for each such material change: who made it; when they made it; and the coding purpose of the change. The NPRM also required that AT Persons

maintain source code in accordance with § 1.31 and make source code available for inspection by Commission staff and the Department of Justice pursuant to § 1.31.

Under Supplemental proposed § 1.84, AT Persons are required to retain (to the extent that they are generated by an AT Person) three categories of records for a period of five years: (1) Algorithmic Trading Source Code; (2) records that track changes to Algorithmic Trading Source Code; and (3) log files that record the activity of the AT Person's Algorithmic Trading system. Instead of making Algorithmic Trading Source Code available for inspection by Commission staff and the Department of Justice pursuant to § 1.31, under Supplemental proposed § 1.84, action by the Commission itself would be required, either in the form of a special call for these records or pursuant to a subpoena. The Commission may authorize the Director of the Division of Market Oversight to execute the special call, and to specify the form and manner in which the required records must be produced. This procedure is similar to the procedure for the Commission to grant subpoena power to staff. The Commission will retain the authority to grant subpoena power with respect to Algorithmic Trading Source Code, change logs, and log files.

b. Costs

The Commission estimates that a typical AT Person without the hardware and software in place to maintain the records required by Supplemental proposed § 1.84(a) would incur a cost of $41,840 to purchase and set up the required hardware and software, migrate existing Algorithmic Trading Source Code and logs into the software, draft appropriate recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. This cost is broken down as follows: hardware costing

$12,000,[390] software costing $2,000,[391] 1 Project Manager for the Algorithmic Trading Source Code and log migration effort, working for 60 hours (60 × $70 = $4,200); 1 Developer for the Algorithmic Trading Source Code and log migration effort, working for 60 hours (60 × $75 = $4,500), 1 Project Manager to develop the related policies and procedures, working for 120 hours (120 x $70 = $8,400), 1 Business Analyst to develop the related policies and procedures, working for 120 hours (120 x $52 = $6,240), and 1 Developer to develop the related policies and procedures, working for 60 hours (60 x $75 = $4,500). The 120 AT Persons therefore would incur a total initial cost of $5,020,800 (120 × $41,840).

The Commission estimates that, on an initial basis, an AT Person with the hardware and software in place to maintain the records required by Supplemental proposed § 1.84(a) would incur a cost of $12,160 to purchase and set up the required hardware and software, migrate existing Algorithmic Trading Source Code and logs into the software, draft appropriate recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. This cost is broken down as follows: hardware costing $4,000, 1 Project Manager to develop the related policies and procedures, working for 30 hours (30 x $70 = $2,100), 1 Business Analyst to develop the related policies and procedures, working for 30 hours (30 x $52 = $1,560), and 1 Developer to develop the related policies and procedures, working for 60 hours (60 x $75

[390] The Commission estimates that the hardware could cost from $1,000 to $25,000 depending on factors including which hardware vendor an AT Person chooses, the amount of business the AT Person does with the hardware vendor and the pricing the hardware vendor provides the AT Person as a result.
[391] The Commission estimates that the software could cost from $0 to $5,000 depending on factors including which hardware vendor an AT Person chooses, the amount of business the AT Person does with the hardware vendor and the pricing the hardware vendor provides the AT Person as a result.

= $4,500). The 120 AT Persons therefore would incur a total initial cost of $1,459,200 (120 × $12,160).

The Commission also has estimated the cost of complying with Supplemental proposed § 1.84(b), which require AT Persons to produce records of Algorithmic Trading in response to a special call. The Commission estimates that, on an annual basis, an AT Person will incur a cost of $51,840 to draft and update recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. This cost is broken down as follows: 1 Project Manager, working for 36 hours per month x 12 months = 432 hours per year (432 × $70 = $30,240); and 1 Developer, working for 24 hours per month x 12 months = 288 hours per year (288 × $75 = $21,600). The 120 AT Persons would therefore incur a total initial cost of $2,894,400 (120 × $51,840).

The Commission does not estimate a specific number of special calls per year that AT Persons will receive. Rather, such special calls would occur on an intermittent basis and the Commission estimates the cost for one response. The Commission estimates that, on an intermittent basis, an AT Person will incur a cost of $5,844 to ensure compliance with those aspects of Supplemental proposed § 1.84(b) requiring AT Persons to produce records of Algorithmic Trading in response to a special call. This cost is broken down as follows: 1 Project Manager, working for 12 hours (12 x $70 = $840); 1 Developer, working for 36 hours (36 × $75 = $2,700); and 1 Compliance Attorney, working for 24 hours (24 × $96 = $2,304). The 120 AT Persons would therefore incur a total annual cost of $701,280 (120 × $5,844).

The Commission expects that AT Persons already retain Algorithmic Trading Source Code and log files and to some extent are incurring such costs under current

practice. The Commission believes that with the numerous protections to Algorithmic Trading Source Code confidentiality provided in Supplemental proposed § 1.84, including removal of the applicability of § 1.31, the various costs attributed to the NPRM source code rule by commenters generally do not apply to Supplemental proposed § 1.84.

For more detail on the estimated costs of § 1.84, see Sections IX(B)(2)(d) and (e) below.

c. Benefits

As noted, Supplemental proposed § 1.84 is first and foremost a recordkeeping rule. Requiring AT Persons to retain Algorithmic Trading Source Code and log files will ensure that the Commission is able to access this information (through a special call or subpoena) on the, presumably infrequent, occasions when it is needed to investigate or inquire into an Algorithmic Trading Compliance Issue or disruption. Supplemental proposed § 1.84(b), which would require the Commission to issue a special call in order to enable Commission staff to review Algorithmic Trading Source Code and log files as part of its market oversight responsibilities. The Commission could also access source code by issuing subpoenas that are typically used in enforcement investigations. For example, the Commission might issue a special call to inquire into a market disruption without launching a formal enforcement investigation or implying that the disruption was caused by a violation of the CEA or Commission regulations. Further, Commission access to Algorithmic Trading Source Code and log files should not compromise their integrity as trade secrets or other confidential information; the confidentiality provisions of Supplemental proposed § 1.84(b)(3) are designed to preserve their confidential status.

The Commission notes that Supplemental proposed § 1.84(b)(3) is in addition to existing confidentiality protections provided in section 8(a) of the Act.

d. Consideration of Alternatives

The Commission considered the alternative of maintaining the NPRM proposal that Algorithmic Trading Source Code would be subject to the inspection and production provisions of § 1.31, but the Commission acknowledges the concerns of commenters regarding Algorithmic Trading Source Code confidentiality and trade secret preservation and determined to provide Algorithmic Trading Source Code and log files with the greater protection provided by Supplemental proposed § 1.84 as compared to § 1.31.

The Commission also considered not promulgating an Algorithmic Trading Source Code rule, but determined that it is essential for the protection of market participants and the public to ensure that Algorithmic Trading Source Code and log file records be retained and, when necessary, made available to the Commission.

e. Commission Questions

44. The Commission requests comment on the costs and benefits of Supplemental proposed § 1.84 including the accuracy of its cost estimates.

45. To what extent do AT Persons currently retain Algorithmic Trading Source Code and log files and for what period of time?

46. To what extent do the protections to Algorithmic Trading Source Code confidentiality in Supplemental proposed § 1.84 address the concerns of commenters regarding the NPRM proposed § 1.81(a)(1)(vi) Algorithmic Trading Source Code rule, particularly with respect to costs and benefits?

9. Testing, Monitoring and Recordkeeping Requirements in the Context of Third-Party Providers

a. Summary of New Proposal

NPRM proposed § 1.81(a) required AT Persons to implement written policies and procedures for the development and testing of ATSs. Among other things, such policies and procedures must at a minimum include documenting the strategy and design of proprietary Algorithmic Trading software, as well as any changes to software that are implemented in a production environment, pursuant to NPRM proposed § 1.81(a)(v). Under NPRM proposed § 1.81(a)(vi), a source code repository was required to be maintained, as discussed above.

Supplemental proposed § 1.85 allows AT Persons who are unable to comply with a particular development and testing requirement[392] or a particular maintenance or production requirement related to Algorithmic Trading strategy (including Algorithmic Trading Source Code and log files),[393] due solely to their use of third-party system components, to obtain a certification that the third party is complying with the obligation. AT Persons would need to obtain a new certification whenever there is a material change to the third-party system or system components. The proposed rule also would require AT Persons to conduct due diligence regarding the accuracy of the certification. In addition, in all cases, under the Supplemental NPRM, an AT Person is responsible for ensuring that records are retained and produced as required pursuant to Supplemental proposed § 1.84 from third-party providers.

[392] See NPRM proposed §§ 1.81(a)(1)(i), 1.81(a)(1)(iii), and 1.81(a)(1)(iv), and Supplemental NPRM proposed § 1.81(a)(1)(ii).
[393] See Supplemental proposed § 1.84.

b. Costs

Costs to AT Persons: As discussed in further detail in the PRA section, the Commission estimates that each AT Person will incur a one-time cost of $4,884 to establish the process for initially obtaining the third-party certifications permitted by Supplemental proposed § 1.85, conduct the related due diligence and obtain the initial certifications. This cost is broken down as follows: 1 Project Manager, working for 24 hours (24 × $70 = $1,680); 1 Compliance Attorney, working for 24 hours (24 × $96 = $2,304); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 120 AT Persons that will rely on § 1.85 would therefore incur a total one-time cost of $586,080 (120 × $4,884).

The Commission expects that the approximately 120 AT Persons, on average, will need to review approximately one certification each, assuming that some AT Persons use more than one third-party system or system component, while others use only their own systems. For purposes of this cost analysis, the Commission estimates that an AT Person will need to acquire a new certification approximately once per year due to a material change in the third-party system or component. The Commission estimates that, on an annual basis, an AT Person will incur a cost of $2,892 to obtain the third-party certifications permitted by Supplemental proposed § 1.85 and conduct the related due diligence.[394] This cost is broken down as follows: 1 Project Manager, working for 12 hours (12 × $70 = $840); 1 Compliance Attorney, working for 12 hours (12 × $96 = $1,152); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 120

[394] The Supplemental NPRM does not set forth the means by which due diligence must be conducted. The Commission expects that due diligence may take a variety of forms, including but not limited to, email exchanges, teleconferences, reviews of files, and in-person meetings.

AT Persons that will rely on § 1.85 would therefore incur a total annual cost of $347,040 (120 × $2,892).

The provision making an AT Person responsible for ensuring that records are retained and produced as required pursuant to Supplemental proposed § 1.84, should not impose direct costs on AT Persons unless there is an instance the third party is found to have failed to retain and produce records. The costs, in such an event, would depend on the nature and extent of the violation, and it is not reasonably feasible for the Commission to quantify such costs at this time.

The Commission also anticipates that an AT Person will incur a one-time cost of $2,304 to re-write its contracts with third parties, so that the AT Persons can comply with the recordkeeping and production provisions of Supplemental proposed § 1.84. This cost is broken down as follows: 1 Compliance Attorney, working for 24 hours (24 x $96 per hour = $2,304).

AT Persons may incur additional costs as a result of Supplemental proposed § 1.85, depending on the response of third-party providers to implementation of the rule. It is possible that third-party providers may pass on the costs that they incur as a result of Supplemental proposed § 1.85 to their AT Person customers (or all of their customers) in the form of higher prices or an AT Person surcharge.

Costs to Third-Party Providers: The Commission expects that all third-party providers combined will need to provide approximately 120 certifications to the 120 AT Persons, assuming that some AT Persons use more than one third-party system or system component, while others use only their own systems. For purposes of this cost-benefit analysis, the Commission estimates that a third-party provider will need to provide a new

certification to its AT Person customers approximately once per year due to a material change in the third-party system or component. The Commission also expects third-party providers to cooperate with AT Person due diligence for each certification provided, for a total of 120 due diligence occurrences.

The Commission estimates that each third-party provider will incur a one-time cost of $4,884 to establish the process for initially providing the third-party certifications permitted by Supplemental proposed § 1.85 and cooperating with AT Persons conducting the related due diligence. The Commission estimates that there will be a total of 50 third-party service providers to AT Persons for their ATSs or components, and seeks comment on this estimate. The one-time $4,884 cost for each third-party provider is broken down as follows: 1 Project Manager, working for 24 hours (24 × $70 = $1,680); 1 Compliance Attorney, working for 24 hours (24 × $96 = $2,304); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 50 third parties that provide certifications pursuant to Supplemental proposed § 1.85 would therefore incur a total annual cost of $244,200 (50 × $4,884).

The Commission estimates that, on an annual basis, an average third party will incur a cost of $2,892 to provide AT Persons the third-party certifications permitted by Supplemental proposed § 1.85 and cooperate with AT Persons conducting the related due diligence. This cost is broken down as follows: 1 Project Manager, working for 12 hours (12 × $70 = $840); 1 Compliance Attorney, working for 12 hours (12 × $96 = $1,152); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 50 third parties that will rely on § 1.85 would therefore incur a total annual cost of $146,600 (50 × $2,892).

In addition to the costs of providing certifications, the Commission anticipates that third-party providers will incur additional costs relating to Supplemental proposed § 1.85(a), which contemplates that third parties will provide to AT Persons systems or components that comply with NPRM proposed §§ 1.81(a)(1)(i), 1.81(a)(1)(iii), 1.81(a)(1)(iv), 1.81(a)(2), or Supplemental proposed §§ 1.81(a)(1)(ii) or 1.84. The Commission estimates that, on an annual basis, a third party will incur costs to comply with the proposed rules listed above that are comparable to the costs that an AT Person would incur to comply with such rules. The estimated costs for an AT Person to comply with Supplemental proposed § 1.84 are discussed in Section IX(A)(8) above. The estimated costs for an AT Person to comply with proposed § 1.81(a) were discussed in detail in the NPRM.[395]

The Commission also anticipates that a third-party will incur a one-time cost of $2,304 to re-write its contracts with AT Persons, so that the AT Persons can comply with the recordkeeping and production provisions of Supplemental proposed § 1.84. This cost

[395] See NPRM at 78900. In the NPRM, the Commission estimated that an AT Person that has not implemented any of the requirements of proposed § 1.81(a) (development and testing of ATSs) would incur a total cost of $349,865 to implement those requirements. This cost was broken down as follows: 1 Project Manager, working for 1,707 hours (1,707 x $70 = $119,490); 2 Business Analysts, working for a combined 853 hours (853 x $52 = $44,356); 3 Testers, working for a combined 2,347 hours (2,347 x $52 = $122,044); and 2 Developers, working for a combined 853 hours (853 x $75 = $63,975). The Commission notes that this calculation would apply only to third parties that have not implemented any of the requirements of proposed § 1.81(a). However, the Commission anticipates that many third-party providers—e.g., software development firms—already develop and test systems or components in the ordinary course of their business. Indeed, the Commission anticipates that third-party providers would generally be as sophisticated, if not more sophisticated, than AT Persons with respect to the development and testing of ATSs. Therefore, the Commission believes that the cost of compliance for third parties would be lower than the estimate calculated above. In addition, the Commission anticipates that compliance costs under Supplemental proposed § 1.81(a)(1)(ii) will be lower than the costs estimated in the NPRM, since the Commission is proposing to eliminate the requirement under NPRM proposed § 1.81(a)(1)(ii) that AT Persons must test all Algorithmic Trading code and related systems on each DCM on which Algorithmic Trading will occur (while retaining a more general requirement that AT Persons must test all ATSs).

is broken down as follows: 1 Compliance Attorney, working for 24 hours (24 x $96 per hour = $2,304).

These cost estimates represent an average across all of the estimated 50 firms offering ATS systems or components of systems for use on DCMs. However, the costs to particular firms will vary depending on how many products they offer and how many AT Person customers they do business with. For example, the Commission understands that a small number of firms have a predominant share in the market for third-party provided ATS. Accordingly, the largest providers may have several dozen AT Person customers (as well as a much larger number of non-AT Person customers) while other firms among these 50 currently may have no or few AT Person customers.

The Commission anticipates that much of the cost of providing certifications will result from the initial costs of researching the requirements for certifications and creating the first certification. The Commission expects that a third-party provider can create a single certification for a particular ATS product or component and provide the same certification to all AT Person customers using that product. Certifications for other software products offered by a third-party vendor are likely to be similar to the certification for the initial product. Thus, the cost of creating a certification for an additional software product is likely to be substantially lower than the cost of creating the initial certification. For the same reason, the cost of modifying a certification to reflect material changes to a product is also likely to be much lower than the cost of creating the initial certification. Accordingly, the Commission expects that there will be economies of scale associated with providing certifications to AT Persons, and costs for firms with

many AT Person customers may not be substantially greater than such costs for firms with only one AT Person customer.

However, a firm with many AT Person customers is likely to incur much higher costs associated with cooperating with AT Person due diligence than a firm with only one or a few AT Person customers. This is because a third-party provider will have to cooperate with due diligence separately for each AT Person customer. If a firm has several dozen AT Person customers, it may be necessary for the project manager, compliance attorney, and developer noted above to devote an extended period of time to cooperating with AT Person due diligence, especially following issuance of the initial certification. On subsequent occasions when the software changes materially, the provider will again have to cooperate with AT Person due diligence, but this is likely to be less costly (albeit still significant) than cooperating with the initial due diligence. As noted, AT Persons would likely perform some due diligence even absent the proposed rule. However, they might perceive less need to perform extensive due diligence on firms with many AT Person customers and strong reputations than on firms new to the market or with few AT Person customers. Moreover, AT Persons may tend to perform less due diligence over time, if there are no problems and they come to trust their providers. Thus, Supplemental proposed § 1.85 may result in more extensive due diligence being performed on established firms with many AT Person customers than would occur absent the Supplemental proposed rule.

It is highly likely, especially given the small number of third party providers, that these third-party providers will pass on these costs to their AT Person customers or to all of their customers. It is also possible that third-party providers will elect to avoid these

costs by no longer providing their systems to AT Persons, especially if (as is likely given the small number of AT Persons) AT Persons represent a relatively small percentage of their customers.

For more detail on the estimated costs of § 1.85, see Section IX(B)(2)(f).

c. Benefits

The certification requirements of Supplemental proposed § 1.85 will improve the safety of ATSs by ensuring that ATSs and components provided by third parties to AT Persons are compliant with the development and testing requirements of Regulation AT even when the AT Persons themselves otherwise are unable to comply with those requirements. The due diligence requirements will further ensure that third-party systems are compliant with Regulation AT. Moreover, the recordkeeping and production requirements of § 1.85(d) (by reference to § 1.84(a) and (b)) will ensure the Commission is able to access the Algorithmic Trading Source Code and log files of third parties via special call to an AT Person or via subpoena in the event they are needed to investigate or inquire into a disruption. Finally, placing ultimate responsibility for compliance with the recordkeeping and production requirements of Supplemental proposed § 1.84 with the AT Person will further ensure that the benefits of these requirements are fully realized.

d. Consideration of Alternatives

The Commission considered not requiring AT Persons to conduct due diligence of third-party certifications in order to reduce costs, but determined that requiring due diligence is essential to market integrity and protection of market participants and the public. The Commission preliminarily believes that certification alone is not sufficient to ensure that third-party systems and components are compliant with Regulation AT.

The Commission also considered making an AT Person ultimately responsible for ensuring that third-party systems are compliant with the development and testing requirements of Supplemental proposed § 1.81, but was concerned that this might deter AT Persons from utilizing third-party systems for which they are ultimately responsible but lack control. Moreover, the Commission preliminarily believes that certification and due diligence are sufficient to ensure that the benefits of Supplemental proposed § 1.81 are realized with regard to third-party systems.

e. Commission Questions

47. The Commission requests comment on its cost-benefit considerations related to Supplemental proposed § 1.85, including the accuracy of its cost estimates.

48. The Commission requests comment on the costs of § 1.85 to third-party providers with few AT Person customers as compared to the costs to third-party providers with many AT Person customers.

49. To what extent does requiring due diligence of third-party certifications provide additional benefits beyond those of certification requirement itself?

50. To what extent would AT Persons perform due diligence of third-party certifications absent the proposed rule requiring such due diligence?

51. Would placing ultimate responsibility for third-party compliance with Supplemental proposed § 1.81 with the AT Person provide benefits beyond those of certification and due diligence?

52. For purposes of this cost analysis, the Commission estimated that an AT Person will need to acquire a new certification approximately once per year due to a material change in the third-party system or component. Please comment on whether the

estimate of a material change occurring approximately once per year is an appropriate assumption.

53. The Commission requests any additional quantitative information that commenters can provide regarding the costs and benefits of § 1.85.

54. How many third parties are actively providing Algorithmic Trading software in the futures and option markets on DCMs?

55. To what extent will third-party providers pass on the costs that they incur as a result of § 1.85 to their AT Person customers or to all of their customers?

10. Changes to Overall Risk Control Framework

a. Summary of New Proposal

NPRM proposed §§ 1.80, 1.82, 38.255 and 40.20 imposed risk control and similar requirements, such as order cancellation systems, at three levels: the AT Person, FCM and DCM. The NPRM also contained definitions for various terms, including "Algorithmic Trading" and "AT Order Message." Under the NPRM, risk controls applied to AT Order Messages, but not to order messages entered onto an exchange's matching engine manually.

In the Supplemental NPRM, the Commission proposes a risk control framework with controls at two, rather than three, levels: (i) AT Person or FCM; and (ii) DCM. With respect to algorithmic orders originating with AT Persons (AT Order Messages), the proposed rules require all AT Persons to implement the risk controls and other measures required pursuant to § 1.80 (although AT Persons may delegate compliance with § 1.80(a) to FCMs). The Supplemental NPRM also adds new § 1.80(g), which requires AT Persons to apply the risk control mechanisms described in § 1.80(a), (b) and

(c) on its Electronic Trading Order Messages that do not arise from Algorithmic Trading, after making any adjustments in the risk control mechanisms to accommodate the application of such mechanisms to Electronic Trading Order Messages. FCMs are not required to implement risk controls on AT Order Messages that are subject to AT Person-administered controls. Those AT Order Messages originating from AT Persons will be subject to a second level of risk controls at the DCM level pursuant to proposed § 40.20.

AT Order Messages originating with a non-AT Person are subject to risk controls implemented by executing FCMs pursuant to proposed § 1.82. Those orders will be subject to the second level of risk controls at the DCM level pursuant to proposed § 40.20.

The Commission is proposing two additional definitions in the Supplemental NPRM for the terms Electronic Trading and Electronic Trading Order Message, since many of the risk controls will also apply to manually-entered electronic trades. Pursuant to these definitions, Electronic Trading Order Messages are subject to risk controls implemented by executing FCMs pursuant to proposed § 1.82 or by AT Persons pursuant to supplemental proposed § 1.80(g). Those orders will be subject to the second level of risk controls at the DCM level pursuant to proposed § 40.20. The Supplemental NPRM eliminates NPRM proposed § 1.80(d) which required notification by AT Persons to applicable DCMs and clearing member FCMs that they will engage in Algorithmic Trading.

Finally, Supplemental proposed § 38.255(c) requires a DCM that permits DEA to require that an FCM use DCM-provided risk controls, or substantially equivalent controls developed by the FCM itself or a third party. Prior to an FCM's use of its own or a third

party's systems and controls, the FCM must certify to the DCM that such systems and controls are substantially equivalent to the systems and controls that the DCM makes available pursuant to Supplemental proposed § 38.255(b).

b. Costs

Requiring risk controls at two levels rather than three will reduce the costs to FCMs and AT Persons associated with these risk controls (relative to those in the NPRM) by requiring either the AT Person or the FCM to implement risk controls, but not both. As discussed in the NPRM, the Commission estimated those costs as: each AT Person – $79,680; and each clearing member FCM – $49,800 (as to DEA orders) and $159,360 (as to non-DEA orders).[396] FCMs generally will be required to implement risk controls only for non-AT Person accounts. AT Persons will be permitted to delegate their risk control responsibilities to FCMs under Supplemental proposed §§ 1.80(d) and 1.80(g)(2) and the Commission expects that AT Persons may do so if it reduces their costs.[397]

Imposing risk controls on all electronic order messages will cause a modest increase in costs on AT Persons and DCMs, but the Commission expects this increase in costs to be minimal since the marginal cost of imposing existing risk controls on additional orders is low once the risk controls have been created and are up and running and AT Persons can make appropriate adjustments to the risk controls set out in §§ 1.80(a) , (b), and (c) since some of these controls need not be applied to manual orders. Similarly, imposing FCM-level risk controls on all Electronic Trading Order Messages not originating with an AT Person will only increase costs modestly. Moreover, the Commission estimates that at least 95% of all order messages on DCM

[396] See NPRM at 78898 and 78903.
[397] FCMs would be permitted to charge AT Person customers to implement risk controls on their behalf.

matching engines are generated by ATSs, so that relatively few order messages are affected by this Supplemental proposed rule. This estimate was based on order activity for one week in 2016, as reported in the audit trail for all futures products on the CME Globex platform.

The withdrawal of the notification requirement of NPRM proposed § 1.80(d) eliminates the costs associated with that NPRM proposal.

The Commission expects that the written notifications pursuant to Supplemental proposed § 38.255(c) from an FCM to a DCM that the FCM's risk controls are substantially equivalent to the risk controls available from the DCM will, as discussed in the PRA section below, cost approximately $235 per certification. The Commission is unable to estimate the exact number of FCMs that will choose to use its own or a third party's systems and controls. Assuming that all 70 executing FCMs were to do so for four DCMs each, the Commission estimates that the 70 executing FCMs would incur a total one-time cost of $65,800 (70 x $235 x 4).[398]

c. Benefits

The Commission preliminarily believes that the benefits of risk controls will not be materially impacted by reducing the number of levels at which risk controls are imposed to two from three. As described in the NPRM, these benefits include, among other things, mitigating credit, market, and operational risks by ensuring that each order accurately reflects the intentions of market participants.[399]

[398] DCMs will incur some costs with respect to preparing an exchange rule requiring FCMs to provide § 38.255(c) certifications. Exchange rule-writing costs were generally covered in the cost-benefit considerations for the Part 40 final rule (76 FR 44776, July 27, 2011).
[399] NPRM at 78899-78900.

Requiring risk controls for all Electronic Trading Order Messages will, as discussed by commenters, ensure that the benefits of the risk controls are realized for all manually entered Electronic Trading Order Messages as well as AT Order Messages.

d. Consideration of Alternatives

In determining the appropriate risk control framework for AT Persons, FCMs and DCMs, the Commission considered a few alternatives. First, the Commission considered whether it should require AT Persons to implement their own controls to comply with Supplemental proposed § 1.80(a), rather than allow AT Persons the choice to delegate their risk control duties to FCMs. However, in order to further mitigate costs, the Commission chose to allow this flexibility when it is technologically feasible for the FCM to implement such controls with the same level of effectiveness reasonably designed to prevent and reduce the risk of an Algorithmic Trading Event.

The Commission also considered the alternative of not requiring AT Persons to apply risk controls to all Electronic Trading Order Messages, but rather applying such controls only to AT Order Messages as a way of reducing costs, but determined that two levels of risk controls should be applied to all Electronic Trading Order Messages, including those originating with an AT Person.

e. Commission Questions

56. The Commission requests comment on its cost-benefit considerations related to the revisions to §§ 1.80, 1.82, 38.255 and 40.20, including the accuracy of the Commission's cost estimates or assumptions concerning decreased cost.

57. Does requiring risk controls at two levels rather than three materially alter the costs or benefits of the risk control framework?

58. Does imposing risk controls on all Electronic Trading Order Messages materially increase costs? Please quantify any increase in costs if possible. What are the benefits of imposing risk controls on all Electronic Trading Order Messages, rather than just AT Order Messages?

59. Does permitting AT Persons to delegate risk controls to an FCM reduce costs or materially alter the benefits of the risk controls?

60. Should the Commission require AT Persons to apply risk controls to their manual Electronic Trading Order Messages? Would a single, DCM-level control applicable to such orders provide sufficient protection for markets and market participants?

11. Reporting, Testing and Recordkeeping Requirements

a. Summary of New Proposal

NPRM proposed §§ 1.83 and 40.22 required that AT Persons and clearing member FCMs provide the DCMs on which they operate with annual reports providing information on their compliance with §§ 1.80(a) and 1.82(a)(1), and that DCMs establish a program for effective review and evaluation of the reports. NPRM proposed §§ 1.83 and 40.22 also provided recordkeeping requirements regarding §§ 1.80, 1.81 and 1.82 compliance. Further, NPRM proposed § 1.81(a)(1)(ii) required AT Persons to test all Algorithmic Trading code and related systems both internally within the AT Person and on each DCM on which Algorithmic Trading will occur. NPRM proposed § 40.21 had required DCMs to provide testing environments.

In light of the concerns raised by commenters to proposed §§ 1.83 and 40.22, the Commission has replaced the requirement that AT Persons and FCMs prepare

compliance reports with a requirement that DCMs mandate that AT Persons and executing FCMs provide DCMs with an annual certification attesting that the AT Person or FCM complies with the requirements of §§ 1.80, 1.81, and 1.82, as applicable, while maintaining the recordkeeping requirements. Also in lieu of requiring compliance reports, Supplemental proposed § 40.22(a) requires DCMs to periodically review AT Persons' and FCMs' programs for compliance with §§ 1.80, 1.81 and 1.82.

Additionally, the Commission is proposing to modify certain requirements regarding the development, monitoring, and compliance of ATSs under NPRM proposed § 1.81. The Commission has withdrawn the requirement under NPRM proposed § 1.81(a)(1)(ii) that AT Persons must test all Algorithmic Trading code and related systems on each DCM on which Algorithmic Trading will occur (while retaining a more general requirement in Supplemental proposed § 1.81(a)(1)(ii) that AT Persons must test all ATSs, including Algorithmic Trading Source Code, any changes to such systems or code, prior to implementation, and such testing shall be reasonably designed to effectively identify circumstances that may contribute to future Algorithmic Trading Events). The Commission has also withdrawn NPRM proposed § 40.21, which had required DCMs to provide test environments that enable AT Persons to simulate production trading.

b. Costs

The Commission preliminarily believes that the costs associated with Supplemental proposed § 40.22(a) (DCMs to periodically review AT Persons' and FCMs' programs for compliance with §§ 1.80, 1.81 and 1.82) are similar on a per-event basis to the costs associated with the NPRM requirements that DCMs review annual

compliance reports from AT Persons and FCMs. However, the Commission expects that DCMs can appropriately perform these periodic reviews for most AT Persons and FCMs at a frequency less often than annually, generally reducing costs. The Commission notes that it may be necessary for DCMs to perform reviews more frequently for entities whose trading activities appear to impose greater potential risks to the marketplace. In the NPRM, the Commission estimated that the compliance reports would cost each clearing member FCM $7,090 annually and each AT Person $4,240 annually.[400] However, some commenters indicated that the Commission had underestimated such costs.

The Commission estimated in the NPRM that it would cost each DCM approximately $244,080 per year to comply with NPRM proposed § 40.22, of which $133,200 is associated with review and remediation of compliance reports.[401] CME believes the Commission's estimate for complying with § 40.22's requirements that DCMs periodically review AT Person and clearing member FCM compliance reports and books and records, and identify and remediate any insufficient mechanisms, policies and procedures discovered, is too low. Instead, CME estimated the annual cost for each of its four DCMs[402] to be closer to $525,000, assuming that across all four DCMs, approximately 650 entities would come within the scope of the proposed compliance report requirements and each entity would be reviewed once every four years (across all

[400] See NPRM at 78904.
[401] See NPRM at 78908. The remainder is associated with the costs of reviewing books and records (§ 40.22(e)) and self-trading requests (§ 40.22(c)). These provisions are not addressed in the Supplemental NPRM.
[402] CME Group is the parent company of the Chicago Mercantile Exchange, Chicago Board of Trade, New York Mercantile Exchange, and Commodity Exchange DCMs. Following the merger of the four exchanges, CME Group has a single Market Regulation Department which provides compliance, enforcement, and other self-regulatory services to all four of the CME Group DCMs. With respect to the four DCMs, CME Group's Market Regulation Department effectively functions as a single entity, sharing management, staff, information technology and other resources.

four DCMs).[403] CME estimated that it would take approximately one month for a full-time employee to complete each review.[404] The Commission preliminarily adopts the CME cost estimate regarding the cost of each individual compliance review ($3,230), but at this time believes that it would be appropriate for a DCM to review AT Persons and FCMs on average every two years rather than every four years.[405] As noted, the Commission expects the costs of Supplemental proposed § 40.22(a) to be similar to the compliance review costs of NPRM Proposed Regulation 40.22. However, the Commission expects that the number of entities that would come within the scope of Supplemental proposed § 40.22(a) would be approximately 180 (120 AT Persons and an additional 60 FCMs)[406] and that the high-end cost to a large DCM (such as those operated by the CME) would thus be approximately $290,000 rather than $525,000. This cost is broken down as follows: $3,230 per review multiplied by 90 (180 AT Persons and FCMs half of which are reviewed each year for 90 reviews) is approximately $290,000. The costs would be lower for smaller DCMs with fewer AT Person market participants and fewer FCMs since they would need to conduct reviews for fewer entities.

FCMs and AT Persons will not incur costs associated with annual compliance reports since those reports will not be required under the Supplemental NPRM, but the Commission estimates that it will cost $2,480 for an FCM or an AT Person to cooperate with a DCM's periodic review. The Commission expects that on average, an FCM or AT Person will be subject to a periodic review every two years for each DCM on which it

[403] CME 22.
[404] See id.
[405] As noted, more frequent reviews may be needed for firms that appear to present more risk.
[406] The Commission is using 60, as opposed to 70, FCMs for purposes of this calculation because every FCM does not operate on all DCMs. Accordingly, a single DCM would not necessarily have to review every FCM.

trades or once every year in total (with entities whose trading activities appear to impose greater potential risks to the marketplace needing more frequent reviews).

Supplemental proposed § 40.22(d) provides that DCMs must require by rule[407] that AT Persons and executing FCMs provide DCMs with an annual certification attesting that the AT Person or FCM complies with the requirements of §§ 1.80, 1.81, and 1.82, as applicable. Such annual certification shall be made by the chief compliance officer or chief executive officer of the AT Person or FCM and must state that, to the best of his or her knowledge and reasonable belief, the information contained in the certification is accurate and complete. The Commission estimates that each DCM's chief compliance officer will spend approximately one hour receiving and reviewing the certification from approximately 120 AT Persons and 60 executing FCMs, for a total of 180 hours and a cost of $28,620 per DCM. This cost is broken down as follows: 1 Chief Compliance Officer, working for 1 hour (1 x $159 per hour x 180 certifications = $28,620). The Commission notes that this cost is significantly lower than the $111,000 per-DCM cost estimated in the NPRM for review of compliance reports.[408] As to AT Person and executing FCM costs, the Commission expects that the annual certification requirement will involve preparation and transmittal of a document that makes the required certification, and that most of the hours associated with this requirement would involve review and analysis by compliance personnel of the entity's compliance with §§ 1.80, 1.81, and 1.82, as necessary to enable the CCO or CEO to sign the certification. The Commission expects that each AT Person or FCM will transmit the

[407] DCMs will incur some costs with respect to preparing an exchange rule requiring FCMs and AT Persons to provide § 40.22(d) certifications. Exchange rule-writing costs were generally covered in the cost-benefit considerations for the Part 40 final rule (76 FR 44776, July 27, 2011).
[408] See NPRM at 78907.

essentially same certifications to each DCM that it is trading or operating on, without the need to prepare a unique certification for each DCM. The Commission also expects that to the extent that an AT Person's or FCM's interaction with the various DCMs' electronic trading facilities are similar, the review and analysis of the entity's compliance with §§ 1.80, 1.81, and 1.82 will also be similar. Therefore, the Commission preliminarily believes that the marginal cost of submitting certifications to additional DCMs will be much less than the cost of submitting a certification to the first DCM.

The Commission estimates that, on an annual basis, an AT Person and an FCM will each incur a cost of $1,176 to submit the compliance certification to four DCMs. This cost is broken down as follows: 1 Senior Compliance Specialist, working for 6 hours (6 x $57 = $342); and 1 Chief Compliance Officer, working for 6 hours (6 x $139 = $834), for each certification.[409] The 120 AT Persons that will be subject to DCM rules implemented pursuant to § 40.22(d) would therefore incur a total annual cost of $141,120 (120 x $1,176). Similarly, the 70 executing FCMs that will be subject to DCM rules implemented pursuant to § 40.22(d) would therefore incur a total annual cost of $82,320 (70 x $1,176). The Commission notes that the $1,176 per-entity cost of submitting certifications is substantially lower than the $4,240 per-AT Person cost and the $7,090 per-FCM cost estimated in the NPRM for submission to DCMs of annual compliance reports.[410] Finally, withdrawing the requirement under NPRM proposed § 1.81(a)(1)(ii) that AT Persons must test Algorithmic Trading code and related systems on each DCM on which Algorithmic Trading will occur, and withdrawing NPRM

[409] The six hours of work for each employee consists of five hours for the initial certification and one hour to prepare additional certifications for three other DCMs.
[410] See NPRM at 78904.

proposed § 40.21, which had required DCMs to provide test environments that enable AT Persons to simulate production trading, will eliminate the costs associated with those NPRM proposed rules.

c. Benefits

The Commission expects that the benefits of proposed § 40.22(a) will be similar to the benefits of the compliance report requirements of NPRM proposed §§ 1.83(a) and (b) and 40.22(c). As stated in the NPRM, those benefits were to enable "DCMs to have a clearer understanding of the pre-trade risk controls of all AT Persons that are engaged in Algorithmic Trading on such DCM" and to "improve the standardization of market participants' pre-trade risk controls."[411] In those years in which entities are not reviewed, DCMs will at least receive notifications pursuant to supplemental proposed § 40.22(d) confirming that such entities are in compliance with §§ 1.80, 1.81 and 1.82, as applicable. An AT Person's or FCM's failure to provide the required certification would indicate a basis for the DCM to engage in a review of such entity's risk controls and testing program.

The withdrawal of the requirement under NPRM proposed § 1.81(a)(1)(ii) that AT Persons must test Algorithmic Trading code and related systems on each DCM on which Algorithmic Trading will occur, and the withdrawal of NPRM proposed § 40.21, which had required DCMs to provide test environments that enable AT Persons to simulate production trading, will eliminate any benefits directly associated with those particular NPRM proposed rules. The Commission is revising or withdrawing those NPRM proposed rules in response to comments discussed above indicating that they were

[411] NPRM at 78905.

costly and impracticable. The Commission expects that the remaining testing requirements in Supplemental proposed § 1.81 generally will continue to provide the benefits described in the NPRM, including the potential to reduce market disruptions.[412]

d. Consideration of Alternatives

The Commission considered the alternative of eliminating the compliance requirements of NPRM proposed § 40.22(c) without proposing either § 40.22(a) or § 40.22(d) in its place. The Commission determined to propose § 40.22(a) and § 40.22(d) because it preliminarily determined that these supplemental proposed rules are necessary to ensure that the benefits of Regulation AT are fully realized, including the goal of ensuring that risk controls are effectively implemented across AT Persons and FCMs, and that insufficient controls at such entities are identified and remediated. Specifically, the Commission preliminarily believes that it is necessary for DCMs to periodically review compliance by AT Persons and FCMs and for AT Persons and FCMs to review their own compliance in order to make certifications.

e. Commission Questions

61. The Commission requests comment on its cost-benefit considerations related to Supplemental proposed §§ 1.81(a)(1)(ii), 1.83, 40.22, and NPRM proposed § 40.21, including the accuracy of its cost estimates or assumptions regarding decreased costs and the accuracy of its assumptions regarding the amount of work that would be required of AT Persons and FCMs to comply with the certification requirements of Regulation AT.

[412] Id. at 78901 and 78907.

62. How do the costs and benefits of Supplemental proposed § 40.22(a) compare to the compliance costs and benefits associated with NPRM proposed § 40.22(c)?

12. Section 15(a) Factors

This section discusses the CEA section 15(a) factors for the proposals in this Supplemental NPRM.

a. Protection of Market Participants and the Public

The Commission preliminarily believes that, as modified by the Supplemental NPRM, Regulation AT would continue to, as stated in the NPRM, protect market participants and the public by limiting a "race to the bottom," in which certain entities sacrifice effective risk controls in order to minimize costs or increase the speed of trading. The Supplemental proposal to set risk controls at two levels rather than three will reduce costs while maintaining Regulation AT's protection of market participants and the public. The proposal to apply risk controls to Electronic Trading Order Messages as well as AT Order Messages will protect market participants and the public by providing the benefits of risk controls to all order submissions to a DCM's electronic trading facility. The requirements of Supplemental proposed § 40.22(a), which requires DCMs to periodically review AT Persons' and FCMs' programs for compliance with §§ 1.80, 1.81 and 1.82, and the certification requirements of § 40.22(d), will promote protection of market participants and the public by helping to ensure that the risk control rules are followed in a consistent manner and may further reduce the likelihood of Algorithmic Trading Events and Algorithmic Trading Disruptions.

Supplemental proposed § 1.84 will protect market participants and the public by ensuring that the Commission has access to the Algorithmic Trading Source Code and log files of AT Persons in the event they are needed to investigate or inquire into an Algorithmic Trading Event or Algorithmic Trading Disruption.

Supplemental proposed § 1.85 will protect market participants and the public by ensuring that ATSs and components provided by third parties to AT Persons are compliant with the development and testing requirements of Regulation AT, even when the AT Persons themselves are otherwise unable to comply with those requirements. Moreover, the recordkeeping requirements of § 1.85(d) (by reference to § 1.84(a) and (b)) will protect market participants and the public by ensuring that the Commission has access to the Algorithmic Trading Source Code and log files of third parties in the event they are needed to investigate or inquire into a an Algorithmic Trading Event or Algorithmic Trading Disruption.

b. Efficiency, Competitiveness, and Financial Integrity of Futures Markets

The Commission preliminarily believes that by addressing pre-trade risk controls, testing, and order management controls at two market levels—the exchange and either the trading firm or the executing FCM—Regulation AT, as modified by this Supplemental NPRM, will continue to provide standards that can be interpreted and enforced in a uniform manner. Implementation of Regulation AT to electronic order messages will help mitigate instabilities in the markets and ensure market efficiency and financial integrity, as discussed in the NPRM.[413] Supplemental proposed § 1.85 will

[413] NPRM at 78909-78910.

further these goals as well by ensuring that third-party systems used by AT Persons are compliant with Regulation AT.

Supplemental proposed § 1.84 will further market efficiency and financial integrity by ensuring that the Commission has access to the Algorithmic Trading Source Code and log files of AT Persons in the event they are needed to investigate or inquire into an Algorithmic Trading Event or Algorithmic Trading Disruption.

c. Price Discovery

Requiring both exchanges and either trading firms or executing FCMs to implement pre-trade risk controls, testing, and order management control requirements in order to mitigate the risk of a malfunctioning trading algorithm or automated trading disruption promotes the price discovery process by reducing the likelihood of transactions at prices that do not accurately reflect market forces.

d. Sound Risk Management Practices

The Commission believes that the pre-trade risk and order management control requirements contained in Regulation AT, as modified by this Supplemental NPRM, will contribute to a system-wide reduction in operational risk, and will help standardize risk management practices across similar entities within the marketplace. The reduction in operational risk may simplify the tasks associated with sound risk management practices. These enhanced risk management practices should help reduce unintended market volatility, which will aid in efficient market making, and reduce overall transaction costs as they relate to price movements, which should encourage market participants to trade in Commission-regulated markets. Market participants and those who rely on prices as

determined within regulated markets should benefit from markets that behave in an orderly and expected fashion.

e. Other Public Interest Considerations

The Commission has not identified any effects that these proposed rules would have on other public interest considerations other than those addressed above.

f. Commission Questions

63. The Commission requests comment on its consideration of the CEA section 15(a) factors.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act requires that agencies consider whether the rules they propose will have a significant economic impact on a substantial number of small entities and, if so, provide a regulatory flexibility analysis regarding the impact.[414] A regulatory flexibility analysis or certification is typically required for any rule for which the agency publishes a general notice of proposed rulemaking pursuant to the notice-and-comment provisions of the Administrative Procedure Act, 5 U.S.C. 553(b).[415]

In the NPRM, the Commission provided a regulatory flexibility analysis pursuant to the Regulatory Flexibility Act.[416] Regulation AT impacts three broad types of market participants: DCMs, FCMs, and AT Persons.[417] In the NPRM, the Chairman, on behalf of the Commission, certified pursuant to 5 U.S.C. 605(b) that the rules proposed in

[414] 5 U.S.C. 601 et. seq.
[415] 5 U.S.C. 601(2), 603, 604, and 605.
[416] NPRM at 78885.
[417] Supplemental proposed § 1.85 will impact another type of market participant, third-party service providers providing software or systems to AT Persons for Algorithmic Trading.

Regulation AT imposing requirements on FCMs and DCMs would not have a significant economic impact on a substantial number of small entities.[418]

With respect to AT Persons, the NRPM provided a regulatory flexibility analysis addressing whether Regulation AT would have a significant economic impact on a substantial number of AT Persons that were small entities. As defined in the NPRM, the term AT Persons included various entities that engaged in Algorithmic Trading, including New Floor Traders under NPRM proposed § 1.3(x)(3), FCMs, floor brokers, SDs, MSPs, CPOs, CTAs and IBs.[419] The NPRM noted that the Commission previously determined that FCMs, foreign brokers, SDs, MSPs, CPOs, and natural persons are not small entities for purposes of the Regulatory Flexibility Act.[420] The NPRM stated that the Commission believes it is likely that no natural persons will be AT Persons, given the technological and personnel costs associated with Algorithmic Trading.[421] The Commission then considered whether, in the context of Regulation AT, floor brokers, floor traders, CTAs, and IBs that engage in Algorithmic Trading should be considered small entities for purposes of the Regulatory Flexibility Act.[422] The Commission concluded that it did not believe that a substantial number of small entities will be impacted by Regulation AT.[423]

The Commission has made a number of substantive additions and changes to Regulation AT in this Supplemental NPRM, some of which may impact small entities. Significantly, while the Commission estimated that there would be 420 AT Persons under the NPRM proposed rules for Regulation AT, the Commission has revised its estimate to

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[418] NPRM at 78885.
[419] Id. at 78885-6.
[420] Id. at 78885.
[421] Id. at 78885-6.
[422] Id. at 78885.
[423] Id. at 78886.

120 AT Persons under the modified rules proposed in this Supplemental NPRM. As discussed below, the Commission believes that the Supplemental proposed rules will have a significant economic impact on fewer (if any) small entities than the NPRM proposed rules.

Pursuant to 5 U.S.C. 603, the Commission offers for public comment the following supplemental analysis to its initial regulatory flexibility analysis addressing the impact of Regulation AT on small entities. The Commission's analysis in the NPRM consisted of six parts, as generally set forth in section 603(b) of the Regulatory Flexibility Act. The Supplemental NPRM does not alter the Commission's analysis of four of the areas: (1) a description of the reasons why action is being considered; (2) a succinct statement of the objectives of, and legal basis for, the proposals; (3) an identification of all relevant federal rules that may duplicate, overlap, or conflict with the proposed rule; and (4) a description of significant alternatives. The Commission offers the following supplemental analysis for two areas: (1) a description of and, where feasible, an estimate of the number of small entities to which the proposed rules will apply; and (2) a description of the projected reporting, recordkeeping, and other compliance requirements of the rules, including an estimate of the classes of small entities which will be subject to the requirements and the type of professional skills necessary for preparation of the report or record.

1. A description, and, where feasible, an estimate of the number of small entities to which the proposed rules will apply.

The Commission noted in the NPRM that the definition of AT Person is limited to entities that conduct Algorithmic Trading and the definition of New Floor Traders under

NPRM proposed § 1.3(x)(1)(iii) is further limited to those entities with DEA. The Commission believes that entities with such capabilities are generally not small entities.

Supplemental proposed § 1.3(xxxx)(1)(i)(B) adds a volume threshold test to the definition of AT Person, which measure is also set forth in definition of New Floor Trader pursuant to Supplemental proposed §§ 1.3(x)(1)(iii)(D) and 1.3(x)(2). The Commission believes that adding this volume threshold to further reduce the scope of Regulation AT will ensure that a substantial number of small entities will not be impacted by the information collection. In the NPRM, the Commission estimated that approximately 420 persons will be AT Persons. The regulatory flexibility analysis contained in the NPRM concluded that Regulation AT would not impact a substantial number of small entities.[424] In this supplemental NPRM, the Commission estimates that approximately 120 persons will be AT Persons, and a smaller number would be New Floor Traders under 1.3(x)(1)(iii). Accordingly, the Commission believes that under the modified definition of AT Person set forth in Supplemental proposed § 1.3(xxxx), the Supplemental proposed rules will impact significantly fewer small entities than the NPRM proposed rules and, in particular, that there will not be a substantial number of small entities impacted by the information collection.

2. A description of the projected reporting, recordkeeping, and other compliance requirements of the rules, including an estimate of the classes of small entities which will be subject to the requirements and the type of professional skills necessary for preparation of the report or record.

[424] Id. at 78886.

The following section discusses the projected reporting, recordkeeping, and other compliance requirements that will be imposed upon AT Persons[425] under the proposed rules.

a. § 1.3(x)(1)(iii) – Registration of New Floor Traders

Regulation AT would impose new registration requirements on certain entities with Direct Electronic Access who meet a volumetric test as a result of the proposed amendment to the definition of "floor trader" in Supplemental proposed § 1.3(x)(1)(iii). The Commission provided detailed estimates of the costs associated with registration as a New Floor Trader in the NPRM.[426] The Commission estimated that new registrants would incur a one-time cost of approximately $2,106 per registrant ($1,050 in application fees plus $1,056 in preparation costs). In the NPRM, the Commission estimated that there would be approximately 100 new Floor trader registrants. The Commission believes that the volume threshold test will likely result in fewer than 100 new Floor trader registrants. The Commission further believes that the volume threshold test proposed in the Supplemental NPRM will reduce the impact on small entities as compared with the NPRM, since the registration requirements of Regulation AT will only apply to entities with high trading volumes when measured across all products and DCMs.

b. § 1.80 – Pre-trade risk controls

NPRM proposed regulations §§ 1.80, 1.82, 38.255 and 40.20 imposed risk control and similar requirements, such as order cancellation systems, on three levels: AT Person,

[425] This analysis discusses estimated costs for AT Persons, irrespective of whether they are small entities. However, the Commission believes that the associated costs for small entity AT Persons would be no more than the costs for any other AT Persons.
[426] NPRM at 78925.

FCM and DCM. As discussed above, this Supplemental NPRM changes the overall framework for risk controls and other measures required pursuant to NPRM proposed §§ 1.80, 1.82, 38.255 and 40.20. This Supplemental NPRM proposes a revised framework with two levels of risk controls: (1) at the AT Person or FCM level, and (2) the DCM level. With respect to orders originating with AT Persons (AT Order Messages), the rules would require all AT Persons to implement the risk controls and other measures required pursuant to § 1.80 (although AT Persons may delegate compliance with § 1.80(a) to FCMs, as discussed above). In the NPRM, the Commission estimated that it would cost an AT Person approximately $79,680 to upgrade its controls to comply with § 1.80. In the NPRM, the Commission estimated that there would be 420 AT Persons. However, under this Supplemental NPRM, the Commission estimates that there will be approximately 120 AT Persons. Assuming that there are 120 AT Persons, the Commission estimates that the total industry cost to implement § 1.80 would be approximately $9,561,600.

The Commission also proposes a change to NPRM proposed § 1.80 in which AT Persons may delegate compliance with pre-trade risk control requirements (§ 1.80(a)) to their executing FCMs. Supplemental proposed § 1.80(d) provides that an AT Person may choose to comply with paragraph (a) of § 1.80 by itself implementing such pre-trade risk controls, or may instead delegate compliance with such obligations to its executing futures commission merchant. Supplemental proposed § 1.80(f) continues to require an AT Person to periodically review its compliance with § 1.80 to determine whether it has effectively implemented sufficient measures reasonably designed to prevent an

Algorithmic Trading Event.[427] The Commission has revised this section to account for the possibility that an AT Person has delegated § 1.80(a) compliance to an FCM, and requires the AT Person to periodically review such FCM's compliance with § 1.80(a). The Commission assumes that some AT Persons will delegate compliance with § 1.80 to its executing FCM under § 1.80(d), and thus review such FCM's compliance with § 1.80(a) pursuant to Supplemental proposed § 1.80(f). While the Commission cannot estimate how many AT Persons will delegate compliance, the Commission believes that the costs associated with review are the same as those associated with compliance with § 1.80 generally.

c. § 1.83(a) – AT Person recordkeeping requirements

As discussed above, the Commission estimated in the NPRM that 420 entities would qualify as AT Persons under Regulation AT. Pursuant to Supplemental proposed § 1.3(xxxx), the Commission now estimates that 120 entities will be AT Persons. The Commission's new, lower estimate for the number of AT Persons is a function of the volume threshold test that market participants would have to satisfy to fall within the definition of AT Person under Supplemental proposed § 1.3(xxxx).

The Commission has updated its Regulatory Flexibility Act analysis from the NPRM for proposed § 1.83, based on its updated estimate of 120 AT Persons in the Supplemental NPRM (as opposed to the 420 AT Persons estimated in the NPRM). The Commission's Regulatory Flexibility Act analysis for Supplemental proposed § 1.83 assumes the same cost on a per AT Person basis as was used in the NPRM analysis. Specifically, the Commission estimated in the NPRM that proposed § 1.83 requirements

[427] The Commission notes that the Supplemental proposes a reasonably designed to prevent and reduce the potential risk of standard under § 1.80.

that AT Persons keep and provide books and records relating to NPRM proposed §§ 1.80 and 1.81 compliance would result in initial outlay of 60 hours of burden per AT Person. Under Supplemental proposed § 1.83(a), the 120 AT Persons would therefore initially incur 7,200 burden hours in total. In the NPRM, the Commission estimated that, on an initial basis, an AT Person would incur a cost of $5,130 to draft and update recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. Under Supplemental proposed § 1.83(a), the 120 AT Persons would therefore incur a total initial cost of $615,600.

The Commission estimated in the NPRM that proposed § 1.83 requirements that AT Persons keep and provide books and records relating to NPRM proposed §§ 1.80 and 1.81 compliance would result in annual costs of 30 hours of burden per AT Person. Under Supplemental proposed § 1.83(a), the 120 AT Persons would therefore incur 3,600 burden hours in total. In the NPRM, the Commission estimated that, on an annual basis, an AT Person would incur a cost of $2,670 to ensure compliance with the NPRM proposed § 1.83(a) recordkeeping rules relating to NPRM proposed § 1.82 compliance. Under Supplemental proposed § 1.83(a), the 120 AT Persons would therefore incur a total annual cost of $320,400.

d. § 1.84 Maintenance of Algorithmic Trading Source Code and related records

Supplemental proposed § 1.84 would require AT Persons to retain three categories of records for a period of five years: (1) Algorithmic Trading Source Code; (2) records that track changes to Algorithmic Trading Source Code; and (3) log files that record the activity of the AT Person's ATS. For purposes of Supplemental proposed

§ 1.84, Algorithmic Trading Source Code includes computer code, hardware description language, scripts and formulas as well as the configuration files and parameters used to carry out the trading. These records are required to be maintained in their native format. Supplemental proposed § 1.84 also requires that these records be kept in a form and manner that ensures the authenticity and reliability of the information contained in the records, and that AT Persons have systems available to promptly retrieve and display the records.

Supplemental proposed § 1.84 applies to AT Persons, including any AT Persons that are floor brokers, floor traders, CTAs, or IBs. The Commission's best understanding is that at this time, all floor brokers are natural persons. Given the technological and personnel costs associated with Algorithmic Trading, the Commission's expectation is that only entities, not natural persons, would meet the definition of "AT Person." Accordingly, the Commission does not believe that any floor brokers would be AT Persons impacted by Supplemental proposed § 1.84.

With respect to New Floor Traders, CTAs, and IBs that would meet the definition of AT Person, the Commission does not believe it is feasible to estimate the total number of such entities that would be small entities. However, under this Supplemental NPRM, the Commission estimates that there will be a total of 120 AT Persons, a subset of the estimated 420 AT Persons described in the NPRM. The Commission noted in the NPRM that the proposed definition of AT Person was limited to entities that conduct Algorithmic Trading, and the NPRM proposed definition of New Floor Traders was further limited to those entities with DEA.[428] The Commission stated that it believed

[428] NPRM at 78886.

entities with such capabilities are generally not small entities.[429] Thus, the population of AT Persons under the Supplemental NPRM is even less likely to include small entities, since they must meet the additional volume threshold measures discussed above. Consequently, the Commission does not believe that Supplemental proposed § 1.84 will impact a substantial number of small entities.

In order to comply with the requirements set out in Supplemental proposed § 1.84(a), an AT Person must have a version control system and an application log management system in place. The Commission expects that most AT Persons have version control software to manage each change made to their software and identify who made the change and why. The Commission also expects that most AT Persons manage their application logs through some form of application log management system.

For firms that do not have version control systems and application log management systems in place, the effort involved in setting one up includes the acquisition of the hardware to run the system, the application software itself, the migration of the existing Algorithmic Trading Source Code and logs into the software, and the creation of policy and procedures related to the use of the system by the firm. For appropriate hardware to accomplish this task, a machine with sufficient storage space and sufficient redundancy will be needed. The Commission expects that ten terabytes of data would constitute sufficient storage capacity. A number of software options are available, from open-source products to industry-standard tools.

[429] Id.

i. Firms without Sufficient Hardware and Software in Place

The Commission estimates that Supplemental proposed § 1.84(a), which requires AT Persons to maintain specified records related to their Algorithmic Trading Source Code and their Algorithmic Trading systems' activity, will result in initial outlay of 420 hours of burden per AT Person without sufficient hardware and software in place to comply with proposed § 1.84(a), and 33,600 burden hours in total. The estimated burden was calculated as follows:

Burden:	Supplemental proposed § 1.84(a), which would require AT Persons to maintain certain records.
Respondents/Affected Entities:	120 AT Persons.
Estimated total burden on each AT Person or executing FCM:	420 hours.
Burden statement-all AT Persons and executing FCMs:	120 respondents × 420 hours = 50,400 Burden Hours initial year.

The Commission estimates that an AT Person without the hardware and software in place to maintain the records required by Supplemental proposed § 1.84(a) would incur a cost of $41,840 to purchase and set up the required hardware and software, migrate existing Algorithmic Trading Source Code and logs into the software and draft appropriate recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. This cost is broken down as follows: hardware costing

$12,000,[430] software costing $2,000,[431] 1 Project Manager for the Algorithmic Trading Source Code and log migration effort, working for 60 hours (60 × $70 = $4,200); 1 Developer for the Algorithmic Trading Source Code and log migration effort, working for 60 hours (60 × $75 = $4,500), 1 Project Manager to develop the related policies and procedures, working for 120 hours (120 x $70 = $8,400), 1 Business Analyst to develop the related policies and procedures, working for 120 hours (120 x $52 = $6,240), and 1 Developer to develop the related policies and procedures, working for 60 hours (60 x $75 = $4,500). The 120 AT Persons would therefore incur a total initial cost of $5,020,800 (120 x $41,840).

ii. Firms with Sufficient Hardware and Software in Place

Firms that have the necessary systems in place may nevertheless need to make changes to their policies and procedures and enhance their hardware to provide more storage capacity, in each case to address the requirements of Supplemental proposed § 1.84(a). The discussion below addresses both the effort it takes to determine what upgrades need to be made, and to implement those upgrades.

The Commission estimates that Supplemental proposed § 1.84(a) requiring AT Persons to maintain specified records related to their Algorithmic Trading Source Code and their Algorithmic Trading systems' activity will result in initial outlay of 90 hours of burden per AT Person with sufficient hardware and software to comply with

[430] The Commission estimates that the hardware could cost from $1,000 to $25,000 depending on factors including which hardware vendor an AT Person chooses, the amount of business the AT Person does with the hardware vendor and the pricing the hardware vendor provides the AT Person as a result.
[431] The Commission estimates that the software could cost from $0 to $5,000 depending on factors including which hardware vendor an AT Person chooses, the amount of business the AT Person does with the hardware vendor and the pricing the hardware vendor provides the AT Person as a result.

Supplemental proposed § 1.84(a), and 10,800 burden hours in total. The estimated burden was calculated as follows:

Burden	Supplemental proposed § 1.84(a), which would require AT Persons to maintain certain records.
Respondents/Affected Entities	120 AT Persons.
Estimated total burden on each respondent	90 hours.
Burden statement-all respondents	120 respondents × 90 hours = 10,800 Burden Hours initial year.

The Commission estimates that, on an initial basis, an AT Person with the hardware and software in place to maintain the records required by Supplemental proposed § 1.84(a) would incur a cost of $12,160 to purchase and set up the required hardware and software, migrate existing Algorithmic Trading Source Code and logs into the software and draft appropriate recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. This cost is broken down as follows: hardware costing $4,000,[432] 1 Project Manager to develop the related policies and procedures, working for 30 hours (30 x $70 = $2,100), 1 Business Analyst to develop the related policies and procedures, working for 30 hours (30 x $52 = $1,560), and 1 Developer to develop the related policies and procedures, working for 60 hours (60 x $75 = $4,500). The 120 AT Persons would therefore incur a total initial cost of $1,459,200 (120 × $12,160).

[432] The Commission estimates that the hardware could cost from $1,000 to $10,000 depending on factors including which hardware vendor an AT Person chooses, the amount of business the AT Person does with the hardware vendor and the pricing the hardware vendor provides the AT Person as a result.

e. Supplemental proposed §§ 1.84(b) and (c)

In order to comply with the requirements set out in Supplemental proposed §§ 1.84(b) and 1.84(c), AT Persons will have to use their version control software to manage their software's version history. This will require a standard monthly effort to maintain the environment so that each AT Person is able to respond to special calls and/or subpoenas.

Monthly Maintenance: The Commission estimates that Supplemental proposed §§ 1.84(b) and 1.84(c), which require AT Persons to produce records of Algorithmic Trading in response to a special call or subpoena, will result in ongoing costs of 324 hours of burden per AT Person per year, and 38,880 annual burden hours in total. The estimated burden was calculated as follows:

Burden	Rule requiring AT Persons to produce Algorithmic Trading records in response to a Special Call or Subpoena.
Respondents/Affected Entities	120 AT Persons.
Estimated total burden on each respondent	324 hours.[433]
Burden statement-all respondents	120 respondents × 324 hours = 38,880 Burden Hours per year.

The Commission estimates that, on an annual basis, an AT Person will incur a cost of $25,380 to draft and update recordkeeping policies and procedures and make

[433] The Commission estimates 27 burden hours per respondent/affected entity per month. Annualizing this monthly figure by multiplying by 12 results in the 324 total burden hour estimate.

technology improvements to recordkeeping infrastructure. This cost is broken down as follows: 1 Project Manager, working for 3 hours per month x 18 months = 54 hours per year (54 × $70 = $3,780); and 1 Developer, working for 24 hours per month x 12 months = 288 hours per year (288 × $75 = $21,600). The 120 AT Persons would therefore incur a total initial cost of $3,045,600 (120 × $25,380).

Costs Per Response to a Special Call or Subpoena. The Commission estimates that Supplemental proposed §§ 1.84(b) and 1.84(c), which require AT Persons to produce records of Algorithmic Trading in response to a special call or subpoena, will result in costs per response of 48 hours of burden per AT Person, and 12,960 burden hours in total. The estimated burden was calculated as follows:

Burden	Rule requiring AT Persons to produce Algorithmic Trading records in response to a Special Call or Subpoena.
Respondents/Affected Entities	120 AT Persons.
Estimated number of responses	120.
Estimated total burden on each respondent	108 hours.
Frequency of collection	Intermittent.
Burden statement-all respondents	120 respondents × 108 hours = 12,960 Burden Hours per year.

The Commission estimates that, on an intermittent basis, an AT Person will incur a cost of $5,844 to ensure compliance with those aspects of Supplemental proposed §§ 1.84(b) and 1.84(c) requiring AT Persons to produce records of Algorithmic Trading

in response to a special call or subpoena. This cost is broken down as follows: 1 Project Manager, working for 12 hours (12 x $70 = $840); 1 Developer, working for 36 hours (36 × $75 = $2,700); and 1 Compliance Attorney, working for 24 hours (24 × $96 = $2,304). The 120 AT Persons would therefore incur a total annual cost of $701,280 (120 × $5,844).

f. § 1.85 -- Use of third-party Algorithmic Trading systems or components

Supplemental proposed § 1.85 would allow AT Persons who are unable to comply with a particular development and testing requirement or a particular maintenance or production requirement related to Algorithmic Trading strategy, due solely to their use of third-party system components, to obtain a certification that the third party is complying with the obligation. Pursuant to Supplemental proposed § 1.84, AT Persons must also conduct due diligence regarding the accuracy of the certification.[434] In addition, in all cases, under the Supplemental NPRM, an AT Person is responsible for ensuring that records are retained and produced as required pursuant to Supplemental proposed § 1.84.

Supplemental proposed § 1.85 would have the effect of reducing the burdens on AT Persons under Supplemental proposed § 1.84 because an AT Person could effectively shift its burden to comply with certain obligations onto a third party, provided that the third party provides a certification to the AT Person. Since Supplemental proposed § 1.85 is burden reducing with respect to AT Persons, the Commission does not believe

[434] The Supplemental NPRM does not set forth the means by which due diligence must be conducted. The Commission expects that due diligence may take a variety of forms, including but not limited to, email exchanges, teleconferences, reviews of files, and in-person meetings.

that the proposed rule would have a "significant economic impact" on AT Persons for purposes of the Regulatory Flexibility Act.

Additionally, the Commission assumes that the third parties that would provide certifications under Supplemental proposed § 1.85 would not be small entities, given the levels of complexity and sophistication required to provide third-party system components to AT Persons in connection with such AT Person's Algorithmic Trading strategy. The Commission invites comment on the accuracy of its assumption.

The Commission estimates that the requirement under Supplemental proposed § 1.85 that an AT Person may comply with an obligation under NPRM proposed §§ 1.81(a)(1)(i), 1.81(a)(1)(iii), 1.81(a)(1)(iv), 1.81(a)(2), or Supplemental proposed §§ 1.81(a)(1)(ii) or 1.84 by obtaining a certification from a third party that the third party is fulfilling the obligation, will result in: (1) 60 one-time hours of burden per AT Person, and 7,200 burden hours in total; (2) 36 hours (on a recurring annual basis) of burden per AT Person, and 4,320 burden hours in total; (3) 60 one-time hours of burden per third party, and 3,000 burden hours in total; and (4) 36 hours (on a recurring annual basis) of burden per third party, and 1,800 burden hours in total. The estimated burden was calculated as follows:

Burden	AT Person establishing the process for obtaining third-party certifications, obtaining the initial certifications and conducting due diligence on the accuracy thereof.

Respondents/Affected Entities	120.[435]
Estimated number of responses	120.[436]
Estimated total burden on each respondent	60 hours.[437]
Frequency of collection	One-time.
Burden statement-all respondents	120 respondents × 60 hours = 7,200 Burden Hours per year.

The Commission estimates that an AT Person will incur a one-time cost of $3,506 to establish the process for initially obtaining the third-party certifications permitted by Supplemental proposed § 1.85, conduct the related due diligence and obtain the initial certifications. This cost is broken down as follows: 1 Project Manager, working for 24 hours (24 × $70 = $1,680); 1 Compliance Attorney, working for 24 hours (24 × $96 = $2,304); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 120 AT Persons that will rely on § 1.85 would therefore incur a total one-time cost of $586,080 (120 × $4,884).

[435] The Commission estimates 120 AT Persons will rely on third party certifications pursuant to Supplemental proposed § 1.85. This estimate is based on an assumption that each AT Person will rely on one third party service providers for such AT Person's ATS or components. In fact, the Commission anticipates that some AT Persons will not rely on any third party service providers for their ATSs or components, while other AT Persons will rely on two third party service providers. For purposes of this PRA analysis, the Commission believes that the best available estimate is that there will be a total of 120 Respondents/Affected Entities. The Commission seeks comment on this estimate.

[436] This is calculated as the product of 120 estimated Respondents/Affected Entities and one initial response (i.e., establishing the process for obtaining third party certifications, obtaining the initial certifications and conducting due diligence on the accuracy thereof).

[437] The Commission estimates that the initial response will take a Project Manager 24 hours, a Compliance Attorney 24 hours and a Developer 12 hours. The sum of those hours is 60 hours.

Burden	AT Person updating its certifications from third parties and conducting updated due diligence on the accuracy thereof.
Respondents/Affected Entities	120.
Estimated number of responses	120.
Estimated total burden on each respondent	54 hours.
Frequency of response	Annual.
Burden statement-all respondents	120 respondents × 54 hours = 6,480 Burden Hours per year.

The Commission estimates that, on an annual basis, an AT Person will incur a cost of $2,892 to obtain the third-party certifications permitted by Supplemental proposed § 1.85 and conduct the related due diligence. This cost is broken down as follows: 1 Project Manager, working for 12 hours (12 × $70 = $840); 1 Compliance Attorney, working for 12 hours (12 × $96 = $1,152); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 120 AT Persons that will rely on § 1.85 would therefore incur a total annual cost of $347,040 (120 × $2,892).

The Commission also anticipates that an AT Person will incur a one-time cost of $2,304 to re-write its contracts with third parties, so that the AT Persons can comply with the recordkeeping and production provisions of Supplemental proposed § 1.84. This cost is broken down as follows: 1 Compliance Attorney, working for 24 hours (24 x $96 per hour = $2,304).

Burden	Third party establishing the process for providing certifications to AT Persons, providing the initial certifications and cooperating with AT Persons conducting due diligence on the accuracy thereof.
Respondents/Affected Entities	50.[438]
Estimated number of responses	50.[439]
Estimated total burden on each respondent	60 hours.[440]
Frequency of response	One-time.
Burden statement-all respondents	50 responses × 60 hours = 3,000 Burden Hours per year.

The Commission estimates that a third party will incur a one-time cost of $4,884 to establish the process for initially providing the third-party certifications permitted by Supplemental proposed § 1.85 and cooperate with AT Persons conducting the related due diligence. This cost is broken down as follows: 1 Project Manager, working for 24 hours (24 × $70 = $1,680); 1 Compliance Attorney, working for 24 hours (24 × $96 = $2,304); and 1 Developer working for 12 hours (12 × $75 = $900). The Commission estimates that third-party ATS providers will issue 120 certifications per year, either as initial or

[438] The Commission estimates that there will be a total of 50 third party service providers to AT Persons for their ATSs or components. The Commission seeks comment on this estimate.
[439] This is calculated as the product of 50 third parties and one initial response (i.e., establishing the process for providing third party certifications, providing the initial certifications and cooperating with AT Persons conducting due diligence on the accuracy thereof). The Commission assumes that each third party will provide a single certification to all AT Persons using a product or service from the third party. The Commission seeks comment on this estimate.
[440] The Commission estimates that, as with the initial collection burden on AT Persons, the initial response will take a third party Project Manager 24 hours, a third party Compliance Attorney 24 hours and a third party Developer 12 hours. The sum of those hours is 60 hours.

annual certifications. This reflects the Commission's estimate of 120 AT Persons, and the fact that some AT Persons will rely on multiple third-party providers, while others will develop their systems entirely in-house. The estimated 50 third parties that provide certifications pursuant to Supplemental proposed § 1.85 would therefore incur a total annual cost of $244,200 (50 × $4,884).

Burden	Third parties annually updating their certifications to AT Persons and cooperating with AT Persons conducting due diligence on the accuracy thereof.
Respondents/Affected Entities	50.[441]
Estimated number of responses	120.
Estimated total burden on each respondent	36 hours.[442]
Frequency of response	Annual.
Burden statement-all respondents	120 responses × 36 hours = 4,320 Burden Hours per year.

The Commission estimates that, on an annual basis, a third party will incur a cost of $2,892 to provide AT Persons the third-party certifications permitted by Supplemental proposed § 1.85 and cooperate with AT Persons conducting the related due diligence. The Commission estimates that third-party ATS providers will issue 120 certifications

[441] The Commission estimates that there will be a total of 50 third party service providers to AT Persons for their ATSs or components.

[442] The Commission estimates that, as with the recurring annual collection for AT Persons, the annual collection will take a third party Project Manager 12 hours, a third party Compliance Attorney 12 hours and a third party Developer 12 hours. The sum of those hours is 36 hours. However, the Commission believes that in a typical year, the actual number of burden hours would be lower, provided that the product or service the AT Person receives from the third party provider has not changed substantially.

per year, either as initial or annual certifications. This reflects the Commission's estimate of 120 AT Persons, and the fact that some AT Persons will rely on multiple third-party providers, while others will develop their systems entirely in-house. This cost is broken down as follows: 1 Project Manager, working for 12 hours (12 × $70 = $840); 1 Compliance Attorney, working for 12 hours (12 × $96 = $1,152); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 50 third parties that will rely on § 1.85 would therefore incur a total annual cost of $144,600 (50 × $2,892).

In addition to the costs of providing certifications, the Commission anticipates that third-party providers will incur additional costs relating to Supplemental proposed § 1.85(a), which contemplates that third parties will provide to AT Persons systems or components that comply with NPRM proposed §§ 1.81(a)(1)(i), 1.81(a)(1)(iii), 1.81(a)(1)(iv), 1.81(a)(2), or Supplemental proposed §§ 1.81(a)(1)(ii) or 1.84. The Commission estimates that, on an annual basis, a third party will incur costs to comply with the proposed rules listed above that are comparable to the costs that an AT Person would incur to comply with such rules. The estimated costs for an AT Person to comply with Supplemental proposed § 1.84 are discussed in Section IX(B)(2)(e) above. The estimated costs for an AT Person to comply with proposed § 1.81(a) were discussed in detail in the NPRM.[443]

[443] See NPRM at 78888, 78900. In the NPRM, the Commission estimated that an AT Person that has not implemented any of the requirements of proposed § 1.81(a) (development and testing of ATSs) would incur a total cost of $349,865 to implement those requirements. This cost was broken down as follows: 1 Project Manager, working for 1,707 hours (1,707 x $70 = $119,490); 2 Business Analysts, working for a combined 853 hours (853 x $52 = $44,356); 3 Testers, working for a combined 2,347 hours (2,347 x $52 = $122,044); and 2 Developers, working for a combined 853 hours (853 x $75 = $63,975). The Commission notes that this calculation would apply only to third parties that have not implemented any of the requirements of proposed § 1.81(a). However, the Commission anticipates that many third-party providers—e.g., software development firms—already develop and test systems or components in the ordinary course of their business. Indeed, the Commission anticipates that third-party providers would

The Commission also anticipates that a third-party will incur a one-time cost of $2,304 to re-write its contracts with AT Persons, so that the AT Persons can comply with the recordkeeping and production provisions of Supplemental proposed § 1.84. This cost is broken down as follows: 1 Compliance Attorney, working for 24 hours (24 x $96 per hour = $2,304).

g. § 40.22 – Compliance with DCM Reviews

The Commission expects that Supplemental proposed § 40.22, which requires DCMs to periodically review AT Persons' compliance with §§ 1.80 and 1.81 executing FCMs' compliance with § 1.82, will also impose burdens on the AT Persons that will be subject to such reviews. The Commission believes that an adequate review program will typically require DCMs to evaluate AT Persons' compliance every two years. Low-risk parties may require less frequent review, while high-risk parties could require for frequent evaluation. The Commission estimates (on an annual basis) 48 hours of burden per AT Person, and 2,880 burden hours in total per year. The estimated burden was calculated as follows:

Burden	Compliance by AT Persons with DCM Reviews.
Respondents/Affected Entities	120.
Estimated number of responses	60 per year (120/2, or half of the total population per year).

generally be as sophisticated, if not more sophisticated, than AT Persons with respect to the development and testing of ATSs. Therefore, the Commission believes that the cost of compliance for third parties would be lower than the estimate calculated above. In addition, the Commission anticipates that compliance costs under Supplemental proposed § 1.81(a)(1)(ii) will be lower than the costs estimated in the NPRM, since the Commission is proposing to eliminate the requirement under NPRM proposed § 1.81(a)(1)(ii) that AT Persons must test all Algorithmic Trading code and related systems on each DCM on which Algorithmic Trading will occur (while retaining a more general requirement that AT Persons must test all ATSs).

Estimated total burden on each AT Person or executing FCM	48 hours.
Frequency of response	Once every two years.
Burden statement-all AT Persons and executing FCMs	60 respondents x 48 hours = 2,880 Burden Hours per year.

The Commission estimates that, on an annual basis, an AT Person will incur a cost of $3,720 to facilitate a DCM's compliance with Supplemental proposed § 40.22. Such costs reflect to the burden to an AT Person of providing written information, responding to questions, and otherwise furnishing such information as the DCM may need to discharge its responsibilities. This cost is broken down as follows: 1 Senior Compliance Specialist, working for 36 hours (36 x $57 = $2,052); and 1 Chief Compliance Officer, working for 12 hours (12 x $139 = $1,668). The 120 AT Persons that will be subject to § 1.83(a) would therefore incur a total annual cost of $446,400 (120 x $3,720).

h. § 40.22(d) – Certification Requirement

The Commission estimates that Supplemental proposed § 40.22(d), which states that DCMs must require each AT Person to provide the DCM an annual certification attesting that the AT Person complies with the requirements of §§ 1.80 and 1.81, will result in (on an annual basis) 12 hours of burden per AT Person and 1,440 burden hours total. The Commission expects that the annual certification requirement will involve preparation and transmittal of a document that makes the required certification, and that most of the burden hours associated with this requirement would involve review and analysis by compliance personnel of the entity's compliance with §§ 1.80 and 1.81

necessary to enable the CCO or CEO to sign the certification. The estimated burden was calculated as follows:

Burden	Compliance certifications submitted by AT Persons to DCMs.
Respondents/Affected Entities	120 AT Persons.
Estimated number of responses	120.
Estimated total burden on each respondent	12 hours.
Frequency of collection	Annual.
Burden statement-all respondents	120 respondents x 12 hours = 1,440 Burden Hours per year.

The Commission estimates that, on an annual basis, an AT Person will incur a cost of $1,176 to submit the compliance certification that will be required by proposed § 40.22(d). This cost is broken down as follows: 1 Senior Compliance Specialist, working for 6 hours (6 x $57 = $342); and 1 Chief Compliance Officer, working for 6 hours (6 x $139 = $834), for each certification to one DCM. The 120 AT Persons that will be subject to DCM rules implemented pursuant to § 40.22(d) would therefore incur a total annual cost of $141,120 (120 x $1,176).[444]

64. The Commission invites comment on its Regulatory Flexibility Act analysis. In particular, the Commission specifically invites comment on the accuracy of

[444] The six hours of work for each employee consists of five hours for the initial certification and one hour to prepare additional certifications for three other DCMs.

its assumption that the third parties referenced in Supplemental proposed § 1.85 would not be "small entities" for Regulatory Flexibility Act purposes.

65. Do you agree that revising the definition of AT Person to include one of the proposed volume threshold will mean that no natural persons will be AT Persons?

66. Do you agree that revising the definition of AT Person to include one of the proposed quantitative measures will mean that there will not be a substantial number of small entities impacted by the information collection?

C. Paperwork Reduction Act

The Paperwork Reduction Act ("PRA")[445] imposes certain requirements on federal agencies in connection with their conducting or sponsoring any collection of information as defined by the PRA. As discussed in the NPRM, Regulation AT would result in new collection of information requirements within the meaning of the PRA. As explained above, the Commission believes that the proposed volume threshold will reduce the number of AT Persons, which would accordingly reduce the PRA estimates provided in the NPRM. The Commission invites the public to comment on any aspect of how the proposed volume threshold would impact the paperwork burdens discussed in the NPRM.

1. § 1.3(x)(1)(iii) – Submissions by newly registered floor traders[446]

In the NPRM, the Commission estimated that there would be 100 new Floor trader registrants under the proposed definition of floor trader in § 1.3(x)(3). The Commission estimated that the NPRM proposed rules requiring registration would result in 11 hours of burden per affected entity, and 1100 burden hours total. The Commission

[445] 44 U.S.C. 3501 et seq.
[446] 78 FR 78891.

estimated that new registrants would incur a one-time cost of $1,056. While the Commission estimated that there would be 420 AT Persons under the NPRM proposed rules for Regulation AT, and approximately 100 would be required to register as Floor traders, the Commission has revised its estimate to 120 AT Persons under the modified rules proposed in this Supplemental NPRM.[447] While the Commission recognizes that the modifications in the Supplemental NPRM may reduce the number of entities required to register, the Commission estimates that there will be approximately 100 new Floor trader registrants under Supplemental proposed § 1.3(x)(1)(iii). The Commission estimates that the 100 entities subject to the registration requirement would incur a total one-time cost of $105,600 (100 x $1,056).

2. § 1.80(d) Pre-trade risk controls for AT Persons -- Delegation

Supplemental proposed § 1.80(d) allows an AT Person to delegate compliance with § 1.80(a) to its executing FCM. Under Supplemental proposed § 1.80(d)(2), an AT Person may only delegate such functions when (i) it is technologically feasible for each relevant FCM to comply with § 1.80(a) with a level of effectiveness reasonably designed to prevent and reduce the potential risk of an Algorithmic Trading Event; and (ii) each relevant FCM notifies the AT Person in writing that the FCM has accepted the AT Person's delegation and that it will comply with § 1.80(a) on behalf of the AT Person. The Commission expects that the written notification pursuant to Supplemental proposed § 1.80(d)(2)(ii) will involve preparation and transmittal of a document that confirms that the FCM accepted the delegation and will comply with § 1.80(a). Accordingly, the Commission estimates that Supplemental proposed § 1.80(d)(2)(ii) will result in two

[447] See Section II(C)(1).

burden hours per affected entity to prepare and send the notification: 1 Compliance Attorney, working for 1 hour (1 x $96 = $96); and 1 Chief Compliance Officer, working for 1 hour (1 x $139). The Commission is unable to estimate the exact number of the 120 AT Persons that will choose to delegate § 1.80(d) compliance. Assuming that all 70 executing FCMs accept delegation for at least one AT Person, the Commission estimates that the 70 executing FCMs would incur a total one-time cost of $16,450 (70 x $235).

3. § 1.83(a) – AT Person Retention and Production of Books and Records[448]

As discussed above, the Commission estimated in the NPRM that 420 entities would qualify as AT Persons under Regulation AT. Pursuant to Supplemental proposed § 1.3(xxxx), the Commission now estimates that 120 entities will be AT Persons. The Commission's new, lower estimate for the number of AT Persons is a function of the volume threshold test that market participants would have to satisfy to fall within the definition of AT Person under Supplemental proposed § 1.3(xxxx).

The Commission has updated its PRA analysis from the NPRM for proposed § 1.83, based on its updated estimate of 120 AT Persons in the Supplemental NPRM (as opposed to the 420 AT Persons estimated in the NPRM). The Commission's PRA analysis for Supplemental proposed § 1.83 assumes the same cost on a per AT Person basis as was used in the NPRM analysis. Specifically, the Commission estimated in the NPRM that proposed § 1.83 requirements that AT Persons keep and provide books and records relating to NPRM proposed §§ 1.80 and 1.81 compliance would result in initial outlay of 60 hours of burden per AT Person. Under Supplemental proposed § 1.83(a), the

[448] Supplemental proposed § 1.83(a) is identical to NPRM proposed § 1.83(c). NPRM proposed §§ 1.83(a) and (b) have been removed in this Supplemental NPRM, and § 1.83 has been renumbered accordingly.

120 AT Persons would therefore initially incur 7,200 burden hours in total. In the NPRM, the Commission estimated that, on an initial basis, an AT Person would incur a cost of $5,130 to draft and update recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. Under Supplemental proposed § 1.83(a), the 120 AT Persons would therefore incur a total initial cost of $615,600.

The Commission estimated in the NPRM that proposed § 1.83 requirements that AT Persons keep and provide books and records relating to NPRM proposed §§ 1.80 and 1.81 compliance would result in annual costs of 30 hours of burden per AT Person. Under Supplemental proposed § 1.83(a), the 120 AT Persons would therefore incur 3,600 burden hours in total. In the NPRM, the Commission estimated that, on an annual basis, an AT Person would incur a cost of $2,670 to ensure compliance with the NPRM proposed § 1.83(a) recordkeeping rules relating to NPRM proposed § 1.82 compliance. Under Supplemental proposed § 1.83(a), the 120 AT Persons would therefore incur a total annual cost of $320,400.

4. § 1.83(b) – Executing FCM Retention and Production of Books and Records[449]

As discussed above, Supplemental proposed § 1.83(b) would govern FCM retention and production of books and records relating to § 1.82 compliance. NPRM § 1.83(d) applied to "clearing" FCMs. In contrast, Supplemental proposed § 1.83(b) would apply to "executing" FCMs. The Commission's PRA analysis for Supplemental proposed § 1.83 assumes the same cost on a per AT Person basis as was used in the NPRM analysis. In the NPRM, the Commission estimated that compliance with

[449] Supplemental proposed § 1.83(b) amends the provisions of NPRM § 1.83(d). NPRM §§ 1.83(a) and (b) have been removed in this Supplemental NPRM, and § 1.83 has been renumbered accordingly.

§ 1.83(d) would result in initial outlay of 60 hours of burden per FCM, and 3,420 burden hours total. In the NPRM, the Commission estimated that, on an initial basis, an FCM would incur a cost of $5,130 to draft and update recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. Under Supplemental proposed § 1.83(b), the 70 executing FCMs would therefore incur a total initial cost of $359,100.

The Commission estimated in the NPRM that proposed § 1.83 requirements that clearing FCMs keep and provide books and records relating to NPRM proposed § 1.82 compliance would result in annual costs of 30 hours of burden per FCM. In the NPRM, the Commission estimated that compliance with § 1.83(d) would result in annual costs of 30 hours of burden per FCM, and 1,710 burden hours total. In the NPRM, the Commission estimated that, on an initial basis, an FCM would incur a cost of $2,670 relating to § 1.82 compliance, including the updating of policies and procedures and technology infrastructure, and to respond to DCM record requests. Under Supplemental proposed § 1.83(b), the 70 executing FCMs would therefore incur a total annual cost of $186,900.

5. **§ 1.84 -- Retention, Production and Confidentiality of Algorithmic Trading Records**

a. Supplemental proposed § 1.84(a)

In order to comply with the requirements set out in Supplemental proposed § 1.84(a), an AT Person must have a version control system and an application log management system in place. The Commission expects that most AT Persons have version control software to manage each change made to their software and identify who

made the change and why. The Commission also expects that most AT Persons manage their application logs through some form of application log management system.

For firms that do not have version control systems and application log management systems in place, the effort involved in setting one up includes the acquisition of the hardware to run the system, the application software itself, the migration of the existing Algorithmic Trading Source Code and logs into the software, and the creation of policy and procedures related to the use of the system by the firm. For appropriate hardware to accomplish this task, a machine with sufficient storage space and sufficient redundancy will be needed. The Commission expects that 10 terabytes of data would constitute sufficient storage capacity. A number of software options are available, from open-source products to industry-standard tools.

i. Firms without Sufficient Hardware and Software in Place

The Commission estimates that Supplemental proposed § 1.84(a), which requires AT Persons to maintain specified records related to their Algorithmic Trading Source Code and their Algorithmic Trading systems' activity, will result in initial outlay of 420 hours of burden per AT Person without sufficient hardware and software in place to comply with proposed § 1.84(a), and 50,400 burden hours in total. The estimated burden was calculated as follows:

Burden	Supplemental proposed § 1.84(a), which would require AT Persons to maintain certain records.
Respondents/Affected Entities	120 AT Persons.
Estimated total burden on each respondent	420 hours.

Burden statement-all respondents	120 respondents × 420 hours = 50,400 Burden Hours initial year.

The Commission estimates that an AT Person without the hardware and software in place to maintain the records required by Supplemental proposed § 1.84(a) would incur a cost of $41,840 to purchase and set up the required hardware and software, migrate existing Algorithmic Trading Source Code and logs into the software and draft appropriate recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. This cost is broken down as follows: hardware costing $12,000,[450] software costing $2,000,[451] 1 Project Manager for the Algorithmic Trading Source Code and log migration effort, working for 60 hours (60 × $70 = $4,200); 1 Developer for the Algorithmic Trading Source Code and log migration effort, working for 60 hours (60 × $75 = $4,500), 1 Project Manager to develop the related policies and procedures, working for 120 hours (120 x $70 = $8,400), 1 Business Analyst to develop the related policies and procedures, working for 120 hours (120 x $52 = $6,240), and 1 Developer to develop the related policies and procedures, working for 60 hours (60 x $75 = $4,500). Therefore, if none of the 120 AT Persons had sufficient hardware and software to comply, they would therefore incur a total initial cost of $5,020,800 (120 x $41,840).

[450] The Commission estimates that the hardware could cost from $1,000 to $25,000 depending on factors including which hardware vendor an AT Person chooses, the amount of business the AT Person does with the hardware vendor and the pricing the hardware vendor provides the AT Person as a result.
[451] The Commission estimates that the software could cost from $0 to $5,000 depending on factors including which hardware vendor an AT Person chooses, the amount of business the AT Person does with the hardware vendor and the pricing the hardware vendor provides the AT Person as a result.

ii. Firms with Sufficient Hardware and Software in Place

Firms that have the necessary systems in place may nevertheless need to make changes to their policies and procedures and enhance their hardware to provide more storage capacity, in each case to address the requirements of Supplemental proposed § 1.84(a). The discussion below addresses both the effort it takes to determine what upgrades need to be made, and to implement those upgrades.

The Commission estimates that Supplemental proposed § 1.84(a) requiring AT Persons to maintain specified records related to their Algorithmic Trading Source Code and their Algorithmic Trading systems' activity will result in initial outlay of 90 hours of burden per AT Person with sufficient hardware and software to comply with Supplemental proposed § 1.84(a), and 10,800 burden hours in total. The estimated burden was calculated as follows:

Burden	Supplemental proposed § 1.84(a), which would require AT Persons to maintain certain records.
Respondents/Affected Entities	120 AT Persons.
Estimated total burden on each respondent	90 hours.
Burden statement-all respondents	120 respondents × 90 hours = 10,800 Burden Hours initial year.

The Commission estimates that, on an initial basis, an AT Person with the hardware and software in place to maintain the records required by Supplemental proposed § 1.84(a) would incur a cost of $12,160 to purchase and set up the required hardware and software, migrate existing Algorithmic Trading Source Code and logs into

the software and draft appropriate recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. This cost is broken down as follows: hardware costing $4,000,[452] 1 Project Manager to develop the related policies and procedures, working for 30 hours (30 x $70 = $2,100, 1 Business Analyst to develop the related policies and procedures, working for 30 hours (30 x $52 = $1,560), and 1 Developer to develop the related policies and procedures, working for 60 hours (60 x $75 = $4,500). The 120 AT Persons would therefore incur a total initial cost of $1,459,200 (120 × $12,160).

b. Supplemental proposed §§ 1.84(b) and (c)

In order to comply with the requirements set out in Supplemental proposed §§ 1.84(b) and 1.84(c), AT Persons will have to use their version control software to manage their software's version history. This will require a standard monthly effort to maintain the environment so that each AT Person is able to respond to special calls and/or subpoenas.

Monthly Maintenance: The Commission estimates that Supplemental proposed §§ 1.84(b) and 1.84(c), which require AT Persons to produce records of Algorithmic Trading in response to a special call or subpoena, will result in ongoing costs of 324 hours of burden per AT Person per year, and 38,880 annual burden hours in total. The estimated burden was calculated as follows:

[452] The Commission estimates that the hardware could cost from $1,000 to $10,000 depending on factors including which hardware vendor an AT Person chooses, the amount of business the AT Person does with the hardware vendor and the pricing the hardware vendor provides the AT Person as a result.

Burden	Rule requiring AT Persons to produce Algorithmic Trading records in response to a Special Call or Subpoena.
Respondents/Affected Entities	120 AT Persons.
Estimated total burden on each respondent	324 hours.[453]
Burden statement-all respondents	120 respondents × 324 hours = 38,880 Burden Hours per year.

The Commission estimates that, on an annual basis, an AT Person will incur a cost of $24,120 to draft and update recordkeeping policies and procedures and make technology improvements to recordkeeping infrastructure. This cost is broken down as follows: 1 Project Manager, working for 3 hours per month x 12 months = 36 hours per year (36 × $70 = $2,520); and 1 Developer, working for 24 hours per month x 12 months = 288 hours per year (288 × $75 = $21,600). The 120 AT Persons would therefore incur a total annual cost of $2,894,400 (120 × $24,120).

Costs Per Response to a Special Call or Subpoena: The Commission estimates that Supplemental proposed §§ 1.84(b) and 1.84(c), which require AT Persons to produce records of Algorithmic Trading in response to a special call or subpoena, will result in costs per response of 72 hours of burden per AT Person, and 12,960 burden hours in total. The estimated burden was calculated as follows:

[453] The Commission estimates 27 burden hours per respondent/affected entity per month. Annualizing this monthly figure by multiplying by 12 results in the 324 total burden hour estimate.

Burden	Rule requiring AT Persons to produce Algorithmic Trading records in response to a Special Call or Subpoena.
Respondents/Affected Entities	120 AT Persons.
Estimated number of responses	120.
Estimated total burden on each respondent	108 hours.
Frequency of collection	Intermittent.
Burden statement-all respondents	120 respondents × 108 hours = 12,960 Burden Hours per year.

The Commission estimates that, on an intermittent basis, an AT Person will incur a cost of $5,844 to ensure compliance with those aspects of Supplemental proposed §§ 1.84(b) and 1.84(c) requiring AT Persons to produce records of Algorithmic Trading in response to a special call or subpoena. This cost is broken down as follows: 1 Project Manager, working for 12 hours (12 x $70 = $840); 1 Developer, working for 36 hours (36 × $75 = $2,700); and 1 Compliance Attorney, working for 24 hours (24 × $96 = $2,304). The 120 AT Persons would therefore incur a total annual cost of $701,280 (120 × $5,844).

6. § 1.85 -- Third-Party Algorithmic Trading Systems or Components

The Commission estimates that the requirement under Supplemental proposed § 1.85 that an AT Person may comply with an obligation under NPRM proposed §§ 1.81(a)(1)(i), 1.81(a)(1)(iii), 1.81(a)(1)(iv), 1.81(a)(2), or Supplemental proposed §§ 1.81(a)(1)(ii) or 1.84 by obtaining a certification from a third party that the third party

is fulfilling the obligation, will result in: (1) 60 one-time hours of burden per AT Person, and 7,200 burden hours in total; (2) 36 hours (on a recurring annual basis) of burden per AT Person, and 4,320 burden hours in total; (3) 60 one-time hours of burden per third party, and 3,000 burden hours in total; and (4) 36 hours (on a recurring annual basis) of burden per third party, and 1,800 burden hours in total. The estimated burden was calculated as follows:

Burden	AT Person establishing the process for obtaining third-party certifications, obtaining the initial certifications and conducting due diligence on the accuracy thereof.
Respondents/Affected Entities	120.[454]
Estimated number of responses	120.[455]
Estimated total burden on each respondent	60 hours.[456]
Frequency of collection	One-time.
Burden statement-all respondents	120 respondents × 60 hours = 7,200 Burden Hours per year.

[454] The Commission estimates 120 AT Persons will rely on third party certifications pursuant to Supplemental proposed § 1.85. This estimate is based on an assumption that each AT Person will rely on one third party service providers for such AT Person's ATS or components. In fact, the Commission anticipates that some AT Persons will not rely on any third party service providers for their ATSs or components, while other AT Persons will rely on two third party service providers. For purposes of this PRA analysis, the Commission believes that the best available estimate is that there will be a total of 120 Respondents/Affected Entities. The Commission seeks comment on this estimate.

[455] This is calculated as the product of 120 estimated Respondents/Affected Entities and one initial response (i.e., establishing the process for obtaining third party certifications, obtaining the initial certifications and conducting due diligence on the accuracy thereof).

[456] The Commission estimates that the initial response will take a Project Manager 24 hours, a Compliance Attorney 24 hours and a Developer 12 hours. The sum of those hours is 60 hours.

The Commission estimates that an AT Person will incur a one-time cost of $4,884 to establish the process for initially obtaining the third-party certifications permitted by Supplemental proposed § 1.85, conduct the related due diligence and obtain the initial certifications. This cost is broken down as follows: 1 Project Manager, working for 24 hours (24 × $70 = $1,680); 1 Compliance Attorney, working for 24 hours (24 × $96 = $2,304); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 120 AT Persons that will rely on § 1.85 would therefore incur a total one-time cost of $586,080 (120 × $4,884).

Burden	AT Person updating its certifications from third parties and conducting updated due diligence on the accuracy thereof.
Respondents/Affected Entities	120.
Estimated number of responses	120.
Estimated total burden on each respondent	36 hours.[457]
Frequency of collection	Annual.
Burden statement-all respondents	120 respondents × 36 hours = 4,320 Burden Hours per year.

The Commission estimates that, on an annual basis, an AT Person will incur a cost of $2,892 to obtain the third-party certifications permitted by Supplemental proposed

[457] The Commission estimates that the annual collection will take a Project Manager 12 hours, a Compliance Attorney 12 hours and a Developer 12 hours. The sum of those hours is 36 hours. However, the Commission believes that in a typical year, the actual number of burden hours would be lower, provided that the product or service the AT Person receives from the third party provider has not changed substantially.

§ 1.85 and conduct the related due diligence. This cost is broken down as follows: 1 Project Manager, working for 12 hours (12 × $70 = $840); 1 Compliance Attorney, working for 12 hours (12 × $96 = $1,152); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 120 AT Persons that will rely on § 1.85 would therefore incur a total annual cost of $347,040 (120 × $2,892).

Burden	Third party establishing the process for providing certifications to AT Persons, providing the initial certifications and cooperating with AT Persons conducting due diligence on the accuracy thereof.
Respondents/Affected Entities	50.[458]
Estimated number of responses	50.[459]
Estimated total burden on each respondent	60 hours.[460]
Frequency of collection	One-time.
Burden statement-all respondents	50 responses × 60 hours = 3,000 Burden Hours per year.

The Commission estimates that a third party will incur a one-time cost of $4,884 to establish the process for initially providing the third-party certifications permitted by

[458] The Commission estimates that there will be a total of 50 third party service providers to AT Persons for their ATSs or components. The Commission seeks comment on this estimate.
[459] This is calculated as the product of 50 third parties and one initial response (i.e., establishing the process for providing third party certifications, providing the initial certifications and cooperating with AT Persons conducting due diligence on the accuracy thereof). The Commission assumes that each third party will provide a single certification to all AT Persons using a product or service from the third party. The Commission seeks comment on this estimate.
[460] The Commission estimates that, as with the initial collection burden on AT Persons, the initial response will take a third party Project Manager 24 hours, a third party Compliance Attorney 24 hours and a third party Developer 12 hours. The sum of those hours is 60 hours.

Supplemental proposed § 1.85 and cooperate with AT Persons conducting the related due diligence. This cost is broken down as follows: 1 Project Manager, working for 24 hours (24 × $70 = $1,680); 1 Compliance Attorney, working for 24 hours (24 × $96 = $2,304); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 50 third parties that provide certifications pursuant to Supplemental proposed § 1.85 would therefore incur a total initial cost of $244,200 (50 × $4,884).

Burden	Third parties annually updating their certifications to AT Persons and cooperating with AT Persons conducting due diligence on the accuracy thereof.
Respondents/Affected Entities	50.[461]
Estimated number of responses	120.
Estimated total burden on each respondent	36 hours.[462]
Frequency of collection	Annual.
Burden statement-all respondents	120 responses × 36 hours = 4,320 Burden Hours per year.

The Commission estimates that, on an annual basis, a third party will incur a cost of $2,892 to provide AT Persons the third-party certifications permitted by Supplemental proposed § 1.85 and cooperate with AT Persons conducting the related due diligence.

[461] The Commission estimates that there will be a total of 50 third party service providers to AT Persons for their ATSs or components.

[462] The Commission estimates that, as with the recurring annual collection for AT Persons, the annual collection will take a third party Project Manager 12 hours, a third party Compliance Attorney 12 hours and a third party Developer 12 hours. The sum of those hours is 36 hours. However, the Commission believes that in a typical year, the actual number of burden hours would be lower, provided that the product or service the AT Person receives from the third party provider has not changed substantially.

This cost is broken down as follows: 1 Project Manager, working for 12 hours (12 × $70 = $840); 1 Compliance Attorney, working for 12 hours (12 × $96 = $1,152); and 1 Developer working for 12 hours (12 × $75 = $900). The estimated 50 third parties that will rely on § 1.85 would therefore incur a total annual cost of $144,600 (50 × $2,892).

7. § 38.255(c) Risk controls for trading – FCM Certification to DCM

Supplemental proposed § 38.255(c) requires a DCM that permits DEA to require that an FCM use DCM-provided risk controls, or substantially equivalent controls developed by the FCM itself or a third party. Prior to an FCM's use of its own or a third party's systems and controls, the FCM must certify to the DCM that such systems and controls are in fact substantially equivalent to the systems and controls that the DCM makes available pursuant to Supplemental proposed § 38.255(b). The Commission expects that the written notification pursuant to Supplemental proposed § 38.255(c) will involve preparation and transmittal of a certification document. Accordingly, the Commission estimates that Supplemental proposed § 38.255(c) will result in two burden hours per affected entity to prepare and send the notification: 1 Compliance Attorney, working for 1 hour (1 x $96 = $96); and 1 Chief Compliance Officer, working for 1 hour (1 x $139). The Commission is unable to estimate the exact number of FCMs that will choose to use its own or a third party's systems and controls. Assuming that all 70 executing FCMs were to do so for four DCMs, the Commission estimates that the 70 executing FCMs would incur a total one-time cost of $65,800 (70 x $235 x 4).[463]

[463] DCMs will incur some costs with respect to preparing an exchange rule requiring FCMs to provide § 38.255(c) certifications. Exchange rule-writing costs are generally covered in the existing Part 40 PRA collection.

8. § 40.22(a)-(c) – Compliance with DCM Reviews

The Commission expects that Supplemental proposed § 40.22(a)-(c), which requires DCMs to periodically review AT Persons' compliance with §§ 1.80 and 1.81 executing FCMs' compliance with § 1.82, will also impose burdens on the AT Persons and executing FCMs that will be subject to such reviews. The Commission believes that an adequate review program will typically require DCMs to evaluate AT Persons' and executing FCMs' compliance every two years. Low-risk parties may require less frequent review, while high-risk parties could require for frequent evaluation. The Commission estimates (on an annual basis) 48 hours of burden per AT Person and executing FCM, and 4,320 burden hours in total per year. The estimated burden was calculated as follows:

Burden:	Compliance by AT Persons and FCMs with DCM Reviews.
Respondents/Affected Entities:	180 (120 AT Persons + 60 FCMs).[464]
Estimated number of responses:	90 per year (180/2, or half of the total population per year).
Estimated total burden on each AT Person or executing FCM:	48 hours.
Frequency of response:	Once every two years.
Burden statement-all AT Persons and executing FCMs:	90 respondents x 48 hours = 4,320 Burden Hours per year.

[464] The Commission is using 60, as opposed to 70, FCMs for purposes of this calculation because every FCM does not operate on all DCMs. Accordingly, a single DCM would not necessarily have to review every FCM.

The Commission estimates that, on an annual basis, an AT Person or an executing FCM will incur a cost of $3,720 to facilitate a DCM's compliance with Supplemental proposed § 40.22. Such costs reflect to the burden to an AT Person or executing FCM of providing written information, responding to questions, and otherwise furnishing such information as the DCM may need to discharge its responsibilities. This cost is broken down as follows: 1 Senior Compliance Specialist, working for 36 hours (36 x $57 = $2,052); and 1 Chief Compliance Officer, working for 12 hours (12 x $139 = $1,668). The 180 AT Persons and executing FCMs that will be subject to § 40.22 DCM review programs would therefore incur a total annual cost of $334,800 (90 x $3,720).

9. § 40.22(d) Certification Requirement

The Commission estimates that Supplemental proposed § 40.22(d), which states that DCMs must require each AT Person to provide the DCM an annual certification attesting that the AT Person complies with the requirements of §§ 1.80 and 1.81, will result in (on an annual basis) 12 hours of burden per AT Person and 1,440 burden hours total. The Commission expects that the annual certification requirement will involve preparation and transmittal of a document that makes the required certification, and that most of the burden hours associated with this requirement would involve review and analysis by compliance personnel of the entity's compliance with §§ 1.80 and 1.81 necessary to enable the CCO or CEO to sign the certification. The estimated burden was calculated as follows:

Burden:	Compliance certifications submitted by AT Persons to DCMs.
Respondents/Affected Entities:	120 AT Persons.

Estimated number of responses:	120.
Estimated total burden on each respondent:	12 hours.
Frequency of collection:	Annual.
Burden statement-all respondents:	120 respondents x 12 hours = 1,440 Burden Hours per year.

The Commission estimates that, on an annual basis, an AT Person will incur a cost of $1,176 to submit the compliance certification that will be required by proposed § 40.22(d). This cost is broken down as follows: 1 Senior Compliance Specialist, working for 6 hours (6 x $57 = $342); and 1 Chief Compliance Officer, working for 6 hours (6 x $139 = $834), for each certification to one DCM. The 120 AT Persons that will be subject to DCM rules implemented pursuant to § 40.22(d) would therefore incur a total annual cost of $141, 120 (120 x $1,176).

Proposed § 40.22(d) also states that DCMs must require that each executing FCM provide the DCM with an annual certification attesting that the executing FCM complies with the requirements of § 1.82. The Commission estimates that this requirement will result in (on an annual basis), 10 hours of burden per executing FCM, and 2,800 burden hours total. The Commission expects that the annual certification requirement will involve preparation and transmittal of a document that makes the required certification, and that most of the burden hours associated with this requirement would involve review and analysis by compliance personnel of the entity's compliance with § 1.82 necessary to enable the CCO or CEO to sign the certification. The estimated burden was calculated as follows:

Burden:	Compliance certifications submitted by executing FCMs to DCMs.
Respondents/Affected Entities:	70 executing FCMs.
Estimated number of responses:	70.
Estimated total burden on each respondent:	12 hours.
Frequency of collection:	Annual.
Burden statement-all respondents:	70 respondents x 12 hours = 840 Burden Hours per year.

The Commission estimates that, on an annual basis, an executing FCM will incur a cost of $1,176 to submit the compliance certification required by proposed § 40.22(d). This cost is broken down as follows: 1 Senior Compliance Specialist, working for 6 hours (6 x $57 = $342); and 1 Chief Compliance Officer, working for 5 hours (5 x $139 = $834), for each certification to one DCM. The 70 executing FCMs that will be subject to DCM rules implemented pursuant to § 40.22(d) would therefore incur a total annual cost of $82,320 (70 x $1,176).

10. Commission Questions

67. The Commission welcomes all comments on the PRA analysis set forth in this Supplemental NPRM and, in particular, all comments regarding the accuracy of its estimate that 120 AT Persons would rely on third-party certifications pursuant to Supplemental proposed § 1.85.

68. The Commission seeks comment on its estimate that 50 third parties would provide certifications to AT Persons pursuant to Supplemental proposed § 1.85.

69. The Commission seeks comment on its estimated costs on AT Persons and third parties in connection with Supplemental proposed § 1.85.

70. The Commission is assuming that each third party that provides certifications under Supplemental proposed § 1.85 will provide a single certification to all AT Persons that use a product or service from such third party. The Commission seeks comment on whether it is feasible for a third party to provide a single certification to all AT Persons using such third party's products or services.

List of Subjects

17 CFR Part 1

Commodity futures, Commodity pool operators, Commodity trading advisors, Definitions, Designated contract markets, Floor brokers, Futures commission merchants, Introducing brokers, Major swap participants, Reporting and recordkeeping requirements, Swap dealers.

17 CFR Part 38

Commodity futures, Designated contract markets, Reporting and recordkeeping requirements.

17 CFR Part 40

Commodity futures, Definitions, Designated contract markets, Reporting and recordkeeping requirements.

17 CFR Part 170

Commodity futures, Commodity pool operators, Commodity trading advisors, Floor brokers, Futures commission merchants, Introducing brokers, Major swap participants, Reporting and recordkeeping requirements, Swap dealers.

For the reasons stated in the preamble, the Commodity Futures Trading Commission proposes to amend 17 CFR chapter I as follows:

PART 1—GENERAL REGULATIONS UNDER THE COMMODITY EXCHANGE ACT

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

Authority: 7 U.S.C. 1a, 2, 5, 6, 6a, 6b, 6c, 6d, 6e, 6f, 6g, 6h, 6i, 6k, 6l, 6m, 6n, 6o, 6p, 6r, 6s, 7, 7a-1, 7a-2, 7b, 7b-3, 8, 9, 10a, 12, 12a, 12c, 13a, 13a-1, 16, 16a, 19, 21, 23, and 24 (2012).

2. Amend § 1.3 as follows:

a. Revise paragraph (x);

b. Reserve paragraphs (tttt) – (vvvv);

c. Add paragraphs (wwww), (xxxx), and (yyyy);

d. Reserve paragraphs (zzzz) and (aaaaa); and

e. Add paragraphs (bbbbb), (ccccc), and (ddddd).

The revisions and additions to read as follows:

§ 1.3 Definitions.

* * * * *

(x) Floor trader—(1) In general. This term means any person:

(i) Who, in or surrounding any pit, ring, post or other place provided by a contract market for the meeting of persons similarly engaged, purchases, or sells solely for such person's own account—

(A) Any commodity for future delivery, security futures product, or swap; or

(B) Any commodity option authorized under section 4c of the Act; or

(ii) Who is registered with the Commission as a floor trader; or

(iii)(A) Who, in or surrounding any other place provided by a contract market for the meeting of persons similarly engaged, purchases or sells solely for such person's own account—

(1) Any commodity for future delivery, security futures product, or swap; or

(2) Any commodity option authorized under section 4c of the Act;

(B) Who uses Direct Electronic Access as defined in paragraph (yyyy) of this section, in whole or in part, to access such other place for Algorithmic Trading;

(C) Who is not registered with the Commission as a futures commission merchant, floor broker, swap dealer, major swap participant, commodity pool operator, commodity trading advisor, or introducing broker; and

(D) Who, with respect to purchases or sales on any designated contract market of any commodity for future delivery, security futures product, or swap, or any commodity option authorized under section 4c of the Act, satisfies the volume threshold test set forth in paragraph (x)(2) of this section.

(2) Volume threshold test. A person satisfies the volume threshold test for purposes of paragraph (x)(1)(iii)(D) of this section if such person trades an aggregate average daily volume of at least 20,000 contracts for such person's own account, the accounts of customers, or both where:

(i) Such person shall calculate the aggregate average daily volume across all products and on the electronic trading facilities of all designated contract markets where such person trades;

(ii) Such person shall calculate the aggregate average daily volume for each January 1 through June 30 and July 1 through December 31 period, based on all trading days in the respective period; and

(iii) For purposes of calculating the aggregate average daily volume, such person shall aggregate its own trading volume and that of any other persons controlling, controlled by or under common control with such person.

(3) Registration period. (i) Unregistered persons who satisfy paragraphs (x)(1)(iii)(A) – (C) of this section, and who satisfy the volume threshold test set forth in paragraph (x)(2) of this section in any January 1 through June 30 or July 1 through December 31 period, shall register as a floor trader within 30 days after the end of such period and shall comply with all requirements of AT Persons pursuant to Commission regulations in this chapter within 90 days after the end of such period.

(ii) For any group consisting of a person and any other persons controlling, controlled by or under common control with such person, if such group of persons in the aggregate satisfies the volume threshold test set forth in paragraph (x)(2) of this section, then one or more persons in such group shall register as floor traders under paragraph (x)(3)(i) of this section, so that the aggregate average daily volume of the unregistered persons in the group trade an aggregate average daily volume below the volume threshold test set forth in paragraph (x)(2) of this section.

(4) Anti-Evasion. (i) No person shall trade contracts or cause contracts to be traded through multiple entities for the purpose of evading the registration requirements imposed on floor traders under paragraph (x)(3) of this section, or to avoid meeting the definition of AT Person under paragraph (xxxx) of this section.

(ii) Contracts that any person trades or causes to be traded through multiple entities for the purpose of evading the registration requirements imposed on floor traders under paragraph (x)(3) of this section, or to avoid meeting the definition of AT Person under paragraph (xxxx) of this section, shall be attributed to such person for purposes of the volume threshold test calculation contained in paragraph (x)(2) of this section.

* * * * *

(tttt) – (vvvv) [Reserved]

(wwww) AT Order Message. This term means each new order submitted through Algorithmic Trading by an AT Person and each modification or cancellation submitted through Algorithmic Trading by an AT Person with respect to such an order.

(xxxx) AT Person. (1) This term means any person registered or required to be registered as a—

(i) Futures commission merchant, floor broker, swap dealer, major swap participant, commodity pool operator, commodity trading advisor, or introducing broker that—

(A) Engages in Algorithmic Trading on or subject to the rules of a designated contract market; and

(B) With respect to purchases or sales of any commodity for future delivery, security futures product, or swap, or any commodity option authorized under section 4c of the Act, satisfies, or has satisfied, the volume threshold test set forth in paragraph (x)(2) of this section; provided, however, that if an AT Person does not satisfy such volume threshold test for two consecutive semi-annual periods, as outlined in paragraph (x)(2) of this section, then such person shall no longer be considered an AT Person; or

(ii) Floor trader as defined in paragraph (x)(1)(iii) of this section.

(2)(i) A person who does not satisfy the conditions of paragraph (xxxx)(1) of this section may elect to become an AT Person, provided that such person:

(A) Registers as a floor trader as defined in paragraph (x)(1)(ii) of this section; and

(B) Submits an application for membership in at least one registered futures association pursuant to § 170.18 of this chapter.

(ii) A person that elects to become an AT Person pursuant to paragraph (xxxx)(2)(i) of this section shall comply with all requirements of AT Persons pursuant to Commission regulations in this chapter.

(yyyy) Direct Electronic Access. For purposes of §§ 1.3(x), 1.3(xxxx), 1.80, 1.81, and 1.82, and §§ 38.255 and 40.20 of this chapter, this term means the electronic transmission of an order for processing on or subject to the rules of a contract market, including the electronic transmission of any modification or cancellation of such order; provided however that this term does not include orders, or modifications or cancellations thereof, electronically transmitted to a designated contract market by a futures commission merchant that such futures commission merchant first received from an unaffiliated natural person by means of oral or written communications.

(zzzz) – (aaaaa) [Reserved]

(bbbbb) Electronic Trading Order Message. This term means each new order submitted by Electronic Trading and each modification or cancellation submitted by Electronic Trading with respect to such an order.

(ccccc) Algorithmic Trading Source Code. Algorithmic Trading Source Code generally means computer commands written in a computer programming language that is readable by natural persons. For purposes of §§ 1.81 and 1.84, Algorithmic Trading Source Code shall include at minimum computer code, logic embedded in electronic circuits, scripts, parameters input into an Algorithmic Trading system, formulas, and configuration files.

(ddddd) Electronic Trading. For purposes of §§ 1.80, 1.82, and 1.83, and §§ 38.255, 40.20, and 40.22 of this chapter, this term means trading in any commodity interest as defined in paragraph (yy) of this section on an electronic trading facility as such term is defined by section 1a(16) of the Act, where the order, order modification or order cancellation is electronically submitted for processing on or subject to the rules of a designated contract market.

3. Add subpart A to read as follows:

Subpart A—Requirements for Algorithmic Trading

Sec.

1.80 Pre-trade risk controls for AT Persons.
1.81 Standards for the development, monitoring, and compliance of Algorithmic Trading systems.
1.82 Executing futures commission merchant risk management.
1.83 AT Person and executing futures commission merchant recordkeeping.
1.84 Maintenance of Algorithmic Trading Source Code and related records.
1.85 Use of third-party Algorithmic Trading systems or components.

Subpart A—Requirements for Algorithmic Trading

§ 1.80 Pre-trade risk controls for AT Persons.

For all AT Order Messages, an AT Person shall implement pre-trade risk controls and other measures reasonably designed to prevent and reduce the potential risk of an Algorithmic Trading Event, including but not limited to:

(a) [Reserved]

(1) [Reserved]

(2) Pre-trade risk controls shall be set at a level or levels of granularity that shall include as appropriate the level of each AT Person, product, account number or designation, or one or more identifiers of the natural persons or the order strategy or Algorithmic Trading system associated with an AT Order Message.

(b) [Reserved]

(c) [Reserved]

(d) Delegation. (1) An AT Person may choose to comply with paragraph (a) of this section by implementing required pre-trade risk controls, or it may instead delegate compliance with such obligations to its executing futures commission merchant(s).

(2) An AT Person may only delegate such functions when—

(i) It is technologically feasible for each relevant futures commission merchant to comply with paragraph (a) of this section with a level of effectiveness reasonably designed to prevent and reduce the potential risk of an Algorithmic Trading Event; and

(ii) Each relevant futures commission merchant notifies the AT Person in writing that the futures commission merchant has accepted the AT Person's delegation and that it will comply with paragraph (a) of this section on behalf of the AT Person.

(e) [Reserved]

(f) Periodic review for sufficiency and effectiveness. Each AT Person shall periodically review its compliance with this section to determine whether it has effectively implemented sufficient measures reasonably designed to prevent and reduce the potential risk of an Algorithmic Trading Event. Each AT Person that has delegated

its pre-trade risk controls to a futures commission merchant pursuant to paragraph (d) or paragraph (g)(2) – (3) of this section shall periodically review such futures commission merchant's compliance with the requirements of paragraph (a) of this section on behalf of the AT Person. Each AT Person shall take prompt action to remedy any deficiencies it identifies in its own measures or in those of a futures commission merchant to which it has delegated.

(g) AT Persons' pre-trade risk controls for electronic trading. (1) An AT Person shall also apply the risk control mechanisms described in paragraphs (a), (b), and (c) of this section to its Electronic Trading Order Messages that do not arise from Algorithmic Trading, after making appropriate adjustments in the risk control mechanisms to accommodate the application of such mechanisms to Electronic Trading Order Messages.

(2) An AT Person may choose to comply with paragraph (g)(1) of this section as to the risk controls in paragraph (a) of this section by implementing required pre-trade risk controls, or it may instead delegate compliance with such obligations to its executing futures commission merchant(s).

(3) An AT Person may only delegate such functions when—

(i) It is technologically feasible for each relevant futures commission merchant to comply with paragraph (g)(1) of this section as to risk control mechanisms required by paragraph (a) of this section with a level of effectiveness reasonably designed to prevent and reduce the potential risk of a disruption associated with Electronic Trading; and

(ii) Each relevant futures commission merchant notifies the AT Person in writing that the futures commission merchant has accepted the AT Person's delegation and that it will comply with paragraph (a) of this section on behalf of the AT Person.

§ 1.81 Standards for the development, monitoring, and compliance of Algorithmic Trading systems.

(a) Development and testing of Algorithmic Trading Systems. (1) [Reserved]

(i) [Reserved]

(ii) Testing of all Algorithmic Trading systems, including Algorithmic Trading Source Code, and any changes to such systems or code, prior to their implementation. Such testing shall be reasonably designed to effectively identify circumstances that may contribute to future Algorithmic Trading Events.

(iii) – (iv) [Reserved]

(2) [Reserved]

(b) – (d) [Reserved]

§ 1.82 Executing futures commission merchant risk management.

(a) Electronic Trading Order Messages not originating with an AT Person. Each executing futures commission merchant shall comply with the following requirements for all Electronic Trading Order Messages not originating with an AT Person:

(1) Make use of pre-trade risk controls reasonably designed to prevent and reduce the potential risk of a disruption associated with Electronic Trading (including an Algorithmic Trading Disruption), including at a minimum:

(i) Maximum Electronic Trading Order Message frequency per unit time and maximum execution frequency per unit time; and

(ii) Order price parameters and maximum order size limits.

(2) Pre-trade risk controls must be set at a level or levels of granularity that will prevent and reduce the potential risk of an Electronic Trading disruption, which shall

include as appropriate the level of each customer, product, account number or designation, or one or more identifiers of the natural persons or the order strategy or Algorithmic Trading system associated with an Electronic Trading Order Message.

(3) The futures commission merchant shall have policies and procedures reasonably designed to ensure that natural person monitors at the futures commission merchant are promptly alerted when pre-trade risk control parameters established pursuant to this section are breached.

(4) Make use of order cancellation systems that have the ability to:

(i) Immediately disengage Electronic Trading;

(ii) Cancel selected or up to all resting orders when system or market conditions require it; and

(iii) Prevent submission of new Electronic Trading Order Messages.

(b) Direct Electronic Access orders. For all Electronic Trading Order Messages not originating with an AT Person and that are submitted to a trading platform through Direct Electronic Access as defined in § 1.3(yyyy), the futures commission merchant may comply with the requirements of paragraphs (a)(1), (2), and (4) of this section by implementing the pre-trade risk controls and order cancellation systems provided by designated contract markets pursuant to § 38.255(b) and (c) of this chapter.

(c) Non-Direct Electronic Access orders. For all Electronic Trading Order Messages not originating with an AT Person and that are not submitted to a trading platform through Direct Electronic Access as defined in § 1.3(yyyy), the futures commission merchant shall comply with the requirements of paragraphs (a)(1), (2), and (4) of this section by—

(i) Itself establishing and maintaining the pre-trade risk controls and order cancellation systems described in paragraphs (a)(1), (2), and (4) of this section; or

(ii) Implementing the pre-trade risk controls and order cancellation systems provided by designated contract markets pursuant to § 38.255(b) and (c) of this chapter.

§ 1.83 AT Person and executing futures commission merchant recordkeeping.

(a) AT Person recordkeeping. Each AT Person shall keep, and provide upon request to each designated contract market on which such AT Person engages in Algorithmic Trading, books and records regarding such AT Person's compliance with all requirements pursuant to §§ 1.80 and 1.81.

(b) Executing futures commission merchant recordkeeping. Each executing futures commission merchant shall keep, and provide upon request to each designated contract market on which its customers engage in Electronic Trading, books and records regarding such futures commission merchant's compliance with all requirements pursuant to § 1.82.

§ 1.84 Maintenance of Algorithmic Trading Source Code and related records.

(a) Records required to be maintained. Each AT Person shall retain the following records, in their native format, for a period of five years:

(1) Any Algorithmic Trading Source Code used by the AT Person.

(2) Any records generated by the AT Person in the ordinary course of business that track material changes to the Algorithmic Trading Source Code, including, if generated by the AT Person in the ordinary course of business, a record of when and by whom such changes were made.

(3) Any logs or log files generated by the AT Person in the ordinary course of business that record the activity of the AT Person's Algorithmic Trading system, including a chronological record of such system's actions.

(b) Commission access to required records pursuant to special call. AT Persons shall produce records required to be maintained pursuant to § 1.84(a) as requested pursuant to special call of the Commission.

(1) Form and manner. Such special call by the Commission may authorize the Director of the Division of Market Oversight to execute the special call and to specify the form and manner in which records shall be produced.

(2) Accessibility and production of records of Algorithmic Trading activity. (i) The records required to be kept pursuant to § 1.84(a) shall be maintained in a form and manner that ensures the authenticity and reliability of the information contained in such records.

(ii) AT Persons shall have available at all times systems to promptly retrieve and display the records required to be maintained pursuant to § 1.84(a) and the information contained in such records. Such systems shall, at a minimum, be equivalent to the systems used by the AT Persons when accessing records required to be maintained pursuant to § 1.84(a) in the ordinary course of its business.

(iii) Each AT Person must, at its own expense, produce promptly upon demand, such records as may be set forth in the Commission's special call or as specified by the Director of the Division of Market Oversight pursuant to special call by the Commission.

(3) Confidentiality of records required to be maintained. Records required to be maintained pursuant to § 1.84(a) are subject to section 8(a) of the Act when produced to

the Commission pursuant to § 1.84(b). Except as specifically authorized in the Act or the Commission's regulations in this chapter, the Commission shall not disclose any record provided pursuant to § 1.84(b), including data and information that would separately disclose the market positions, business transactions, trade secrets, or names of customers of any person.

(c) Subpoenas. The special call procedure set forth in paragraph (b) of this section in no way limits the ability of the Commission, any member of the Commission, or Commission staff to obtain records required to be maintained pursuant to paragraph (a) of this section via the subpoena procedure set forth in part 11 of this chapter.

§ 1.85 Use of third-party Algorithmic Trading systems or components.

(a) Use of third-party Algorithmic Trading systems or components. With respect to Algorithmic Trading systems or components, AT Persons who are otherwise unable to comply with an obligation set forth in the following provisions: §§ 1.81(a)(1)(i), 1.81(a)(1)(ii), 1.81(a)(1)(iii), 1.81(a)(1)(iv), 1.81(a)(2), or 1.84, due solely to their use of third-party systems or components may comply with such obligation by obtaining a certification from the third party that the relevant system or component meets applicable regulatory requirements.

(b) AT Persons shall obtain a new certification described in paragraph (a) of this section each time there is a material change to such third-party provided systems or components.

(c) Each AT Person shall conduct due diligence to reasonably determine the accuracy and sufficiency of a certification provided by a third party.

(d) Notwithstanding the provisions of paragraphs (a) – (c) of this section, each AT Person shall remain responsible for compliance with the obligations set forth in § 1.84. Each AT Person shall retain records pursuant to § 1.84(a), or shall cause such records to be maintained. Each AT Person shall also produce records pursuant to § 1.84(b), or cause such records to be produced, when requested by the Commission.

PART 38—DESIGNATED CONTRACT MARKETS

4. The authority citation for part 38 continues to read as follows:

Authority: 7 U.S.C. 1a, 2, 6, 6a, 6c, 6d, 6e, 6f, 6g, 6i, 6j, 6k, 6l, 6m, 6n, 7, 7a-2, 7b, 7b-1, 7b-3, 8, 9, 15, and 21, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111-203, 124 Stat. 1376.

5. Revise § 38.255 to read as follows:

§ 38.255 Risk controls for trading.

(a) [Reserved]

(b) For all Electronic Trading Order Messages that are submitted to a designated contract market through Direct Electronic Access as defined in § 1.3(yyyy) of this chapter, the designated contract market shall make available to the executing futures commission merchants effective systems and controls, reasonably designed to facilitate the items enumerated below:

(1) The futures commission merchant's management of the risks, pursuant to § 1.82(a)(1) and (2) of this chapter, that may arise from such Electronic Trading.

(i) Such systems and controls shall include, at a minimum, the pre-trade risk controls described in § 1.82(a)(1) of this chapter.

(ii) Such systems shall, at a minimum, enable the futures commission merchant to set the pre-trade risk controls at a level or levels of granularity that will prevent and

reduce the potential risk of an Electronic Trading disruption, which shall include as appropriate the level of each customer, product, account number or designation, and one or more identifiers of the natural persons or the order strategy or Algorithmic Trading system associated with an Electronic Trading Order Message.

(2) The future commission merchant's ability to make use of the order cancellation systems required by § 1.82(a)(4) of this chapter. The designated contract market shall enable the future commission merchant to apply such order cancellation systems to orders at a level or levels of granularity that will prevent and reduce the potential risk of an Electronic Trading disruption, which shall include as appropriate orders from each customer, product, account number or designation, or one or more identifiers of the natural persons or the order strategy or Algorithmic Trading system associated with an Electronic Trading Order Message.

(c) A designated contract market that permits Direct Electronic Access as defined in § 1.3(yyyy) of this chapter shall also require futures commission merchants to use the systems and controls described in paragraph (b) of this section, or substantially equivalent systems and controls developed by the futures commission merchant itself or provided by a third party, with respect to all Electronic Trading Order Messages not originating with an AT Person that are submitted through Direct Electronic Access. Prior to a futures commission merchants' use of its own or a third party's systems and controls, the futures commission merchant must certify to the designated contract market that such systems and controls are substantially equivalent to the systems and controls that the designated contract market makes available pursuant to paragraph (b) of this section.

PART 40—PROVISIONS COMMON TO REGISTERED ENTITIES

6. The authority citation for part 40 continues to read as follows:

Authority: 7 U.S.C. 1a, 2, 5, 6, 7, 7a, 8 and 12, as amended by Titles VII and VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111-203, 124 Stat. 1376 (2010).

§§ 40.13 through 40.19 [Reserved]

7. Add reserved §§ 40.13 through 40.19.

8. Add § 40.20 to read as follows:

§ 40.20 Risk controls for trading.

A designated contract market shall implement pre-trade and other risk controls reasonably designed to prevent and reduce the potential risk of a disruption associated with Electronic Trading (including an Algorithmic Trading Disruption), including at a minimum all of the following:

(a) Pre-trade risk controls. Pre-trade risk controls reasonably designed to address the risks from Electronic Trading on a designated contract market.

(1) The pre-trade risk controls to be established and used by a designated contract market shall include:

(i) Maximum Electronic Trading Order Message frequency per unit time and maximum execution frequency per unit time; and

(ii) Order price parameters and maximum order size limits.

(2) Designated contract markets must set the pre-trade risk controls at a level or levels of granularity that will prevent and reduce the potential risk of an Electronic Trading disruption, which shall include as appropriate the level of each trading firm, by

product or one or more identifiers of the natural persons or the order strategy or Algorithmic Trading system associated with an Electronic Trading Order Message.

(3) [Reserved]

(b) Order cancellation systems. (1) Order cancellation systems that have the ability to:

(i) Immediately disengage Electronic Trading;

(ii) Cancel selected or up to all resting orders when system or market conditions require it;

(iii) Prevent submission of new Electronic Trading Order Messages; and

(iv) Cancel or suspend all resting orders from AT Persons in the event of disconnect with the trading platform.

(2) [Reserved]

(c) [Reserved]

§ 40.21 [Reserved]

9. Add reserved § 40.21.

10. Add § 40.22 to read as follows:

§ 40.22 DCM requirements for AT Persons and executing FCMs; DCM review program.

A designated contract market shall comply with the following:

(a) Compliance program. Establish a program for effective periodic review and evaluation of AT Persons' compliance with §§ 1.80 and 1.81 of this chapter and executing futures commission merchant compliance with § 1.82 of this chapter. An effective program shall include measures by the designated contract market reasonably

designed to identify and remediate any insufficient mechanisms, policies and procedures, including identification and remediation of any inadequate quantitative settings or calibrations of pre-trade risk controls required of AT Persons pursuant to § 1.80(a) of this chapter;

(b) Maintenance of books and records. Implement rules that require each AT Person to keep and provide to the designated contract market books and records regarding such AT Person's compliance with all requirements pursuant to §§ 1.80 and 1.81 of this chapter, and require each executing futures commission merchant to keep and provide to the designated contract market books and records regarding such executing futures commission merchant's compliance with all requirements pursuant to § 1.82 of this chapter; and

(c) Reporting. Require such periodic reporting from AT Persons and executing futures commission merchants as is necessary to fulfill the designated contract market's obligations pursuant to paragraph (a) of this section.

(d) Annual Certification. Require by rule that AT Persons and executing futures commission merchants provide the designated contract market with an annual certification attesting the AT Person or executing futures commission merchant complies with the requirements of §§ 1.80, 1.81, and 1.82 of this chapter, as applicable. Such annual certification shall be made by the chief compliance officer or chief executive officer of the AT Person or the executing futures commission merchant, and shall state that, to the best of his or her knowledge and reasonable belief, the information contained in the certification is accurate and complete.

§§ 40.23 through 40.28 [Reserved]

11. Add reserved §§ 40.23 through 40.28.

PART 170—REGISTERED FUTURES ASSOCIATIONS

12. The authority citation for part 170 continues to read as follows:

Authority: 7 U.S.C. 6d, 6m, 6p, 6s, 12a, and 21.

13. Add § 170.18 to subpart C to read as follows:

§ 170.18 AT Persons.

Each registrant, as defined in § 1.3(oooo) of this chapter, that is an AT Person, as defined in § 1.3(xxxx) of this chapter, that is not otherwise required to be a member of a futures association that is registered under section 17 of the Act pursuant to §§ 170.15, 170.16, or 170.17 must submit an application for membership in at least one futures association that is registered under section 17 of the Act and that provides for the membership therein of such registrant, unless no such futures association is so registered, within 30 days of such registrant satisfying the volume threshold test set forth in § 1.3(x)(2) of this chapter.

Subpart D [Reserved]

§ 170.19 [Reserved]

14. Add reserved subpart D, consisting of reserved § 170.19.

Issued in Washington, DC, on November 7, 2016, by the Commission.

Christopher J. Kirkpatrick,

Secretary of the Commission.

NOTE: The following appendices will not appear in the Code of Federal Regulations.

Appendices to Regulation Automated Trading – Commission Voting Summary, Chairman's Statement, and Commissioners' Statements

Appendix 1 – Commission Voting Summary

On this matter, Chairman Massad and Commissioner Bowen voted in the affirmative. Commissioner Giancarlo voted in the negative.

Appendix 2 – Statement of Chairman Timothy G. Massad

I support this supplemental proposal related to "Regulation AT," our proposed rule to address the increased use of automated trading in our markets.

Automated trading dominates the markets we oversee. More than 70 percent of trading in futures is now automated. And this is not just in financial futures; we see it in physical commodity futures as well.

Our markets have fundamentally changed as a result. In just a few years, we have gone from open-outcry pits where floor traders jostled elbow-to-elbow to make trades, to a machine dominated market where a millisecond is considered slow. In fact, the new measure is a microsecond. In the time it would take a trader to hang up the phone and signal a single bid with his hands in the pit, today's machines can potentially generate thousands of orders.

But in another respect, our markets have not changed at all. Farmers, ranchers, manufacturers, exporters—businesses of all types—still depend on them to hedge routine risk and engage in price discovery. Whether it is corn or copper, crude oil or cocoa, equities or Treasuries, Japanese yen or British pounds—businesses need these markets. They need them to function reliably, fairly, and free of manipulation or disruption.

If anything has changed, it is that those needs are greater today. Businesses operate worldwide, commodity markets are global, and products are more diverse.

Market participants look to us to make sure these markets operate with integrity. So while the landscape has changed dramatically, our mission has stayed the same.

I meet with market participants of all types, and I find that traditional end-users, such as those from the agricultural community, are particularly concerned about the effects of automated trading on these markets. It is especially important for us to be able to respond to the concerns of those who are not so-called "flash boys," and are only moving at human speed.

The fact is that our regulations have not kept up with our modern markets. Today's proposal is a part of what we need to do to keep our regulatory system up-to-date, just as you need updates for your phone's operating system from time to time. There are other things we need to do to modernize our regulatory oversight and, in particular, to engage in adequate surveillance of modern trading methods. For example, we must continue to enhance our ability to receive and analyze message and other types of data, and cooperation among regulators will become increasingly important given how today's global markets are linked.

This proposal focuses on minimizing the risk of disruption and other problems that can be caused by automated trading, and making sure we have the tools to deal with those problems should they occur. It requires reasonable risk controls, using a principles-based approach that would codify many industry best practices. But it does not prescribe the parameters or limits of such controls, because we know how diverse market participants can be, and we believe they are the ones who should determine those

specifics. It requires testing and monitoring of algorithms. It requires the preservation of source code and other records—the equivalent of the records that those trading at human speed have preserved for years. And it ensures that we would have access to such records when necessary, just as for years we have reviewed the records of non-automated traders.

In the last year, we received significant feedback on the proposal that the Commission unanimously approved in November of 2015. And today's supplemental proposal makes a number of changes to that initial measure. They reflect the helpful suggestions and comments we have received.

First, while our original proposal called for risk controls at three levels—the exchange, the futures commission merchant (FCM) and the trading firm—we heard from many respondents that this was redundant and costly. Many instead favored a two-tier structure. Therefore, today's proposal would require risk controls at the exchange level, and either the trader or FCM level. So for example, a firm could have its own controls—or opt in to the FCM controls, but we would not require both.

In addition, we heard from many that the controls should pertain to all electronic trading, not just algorithmic trading. The proposal approved today also makes that change. It also provides greater flexibility regarding the level at which pre-trade risk controls must be set.

We also heard that our registration requirement was overly broad. Some claimed it would require thousands of firms to register. Some even argued that we should not require registration at all; we should simply require risk controls.

We need a registration requirement to make sure that some of the biggest traders in our markets are following the basic risk controls required by our proposal. But I am willing to have it appropriately tailored to those who are most active in our markets. Today, a small number of traders can represent a large percentage of total trading volume, including during periods of high volatility. For example, the evening after the UK's vote to exit the European Union, the ten most active firms represented approximately 60 percent of trade activity in British pound futures. This is why our supplemental proposal adds a volumetric test to our registration requirement, so that it pertains to those firms that are doing most of the trading.

In addition, this proposal reduces Regulation AT's reporting requirements, by replacing the annual compliance report with a streamlined annual certification report.

Finally, the proposal revises our original proposal on the issue of algorithmic trading source code. I have said many times that I support a rule that respects the proprietary value and confidentiality of source code. At the same time, this information may be critical to understanding what happened in the event of a market disruption or whether someone is complying with the law. This is why preservation of source code, as well as access, is critical. Therefore, this supplemental proposal makes the following changes.

First, the proposal requires the Commission itself to make the decision to seek access to source code. No staff member can do so without Commission approval. This is a significant departure from our standard practice, which allows staff to seek access to information that registrants are required to preserve without a subpoena or specific

Commission authorization. We have proposed this change in recognition of the concerns raised.

The Commission could authorize the staff to seek such access either by means of a subpoena—which is sometimes the means used in the context of an enforcement investigation into behavior that may be unlawful—or a "special call." The special call is the means our surveillance division has used for many years to obtain and review information in connection with their oversight of trading, and it is issued by the staff. But in this case, we are proposing a process that will require the same level of Commission approval that comes with the issuance of a subpoena, even if it is for surveillance purposes.

Our proposal also describes the steps we can take to preserve the confidentiality of source code. Exactly what we would do in any particular situation would depend on the facts, but confidentiality must always be preserved. It could include precautions like reviewing the source code on a computer that is not connected to the internet or any network, and housing that computer in a secure room. Further, employees of the agency are under statutory obligation to keep proprietary information like source code confidential. There are criminal penalties associated with violating that requirement. I would note that we have protected the confidentiality of source code in the past when we have obtained it.

Finally, I disagree with the characterization that what we are doing amounts to a "slippery slope." I would call this an "uphill climb." Our markets have evolved much faster than our regulatory framework. We are climbing a steep hill to catch up; and to make sure we can always see and understand what is going on in our markets today.

We have long engaged in surveillance that involves reviewing information that has significant proprietary value. This may consist of information on trading strategies, including activities in related markets, or information that would go to whether a position truly is a bona fide hedge, such as purchase or supply commitments of related cash commodities, inventory levels, production expectations, and so forth. Much of this information is confidential and proprietary, and so we protect it. Our review of it is not a denial of due process rights, nor is the proposal we have adopted today.

We should not have a regulatory regime where those who still trade at human speed are subject to effective surveillance, but those who use machines are not. Our rules should not favor one method over another, and nobody should be able to hide behind their machines.

I thank the hardworking CFTC staff for their work on this supplemental proposal and I thank my fellow Commissioners for their consideration.

Appendix 3 – Concurring Statement of Commissioner Sharon Y. Bowen

Thank you. I'm glad to be here this morning as the Commission considers this supplemental proposal to our rulemaking on Automated Trading. I've said several times that I am a firm believer in two things: the need to enhance our rules to ensure that they are appropriately rigorous and protective and to find a rule that works and can be effectively implemented. I am pleased to say that I believe today's release does both. I commend our staff for their hard work on this proposal.

Following significant engagement with a variety of stakeholders, from exchanges and proprietary traders to advocates of financial reform, we are making several important revisions to our proposed rule on automated trading. Of these changes, there are two in

particular that I want to flag. First, we are revising our registration regime to better focus our attention and regulations on the firms responsible for substantial amounts of automated trading in our markets. Under this proposal, firms that make use of Direct Electronic Access (DEA) to connect to our markets will not automatically have to register. Instead, only those firms which use DEA and also have an average of 20,000 or more trades each day over a six month period will be required to register.[1] It only seems appropriate that the firms responsible for a substantial portion of trades in our markets should have heightened regulatory requirements than small firms only entering a handful of trades a day. While a one-size-fits-all system may work in some cases, I believe it would be unduly burdensome to small firms to require that anyone who uses DEA automatically has to register. By offering a specific threshold for registration, however, it is critical that we pick the right number. I therefore am looking forward to the comments from market participants on whether 20,000 trades per day is the right level, too high, or too low. Given the interest that our previous proposal on registration engendered, I am sure that there will be some spirited debates about just what the proper threshold should be.

However, while small firms with small volumes will not be required to register, it is not the case that their trades will be unregulated. In fact, the second major revision of today's proposal will require that all electronic trading, algorithmic as well as non-algorithmic, will have two separate layers of pre-trade risk controls on it. For those trades originating from an AT Person, both the designated contract market (DCM) and the AT Person will be obligated to place pre-trade risk controls on their electronic trades,

[1] Supplemental Notice of Proposed Rulemaking on Regulation on Automated Trading at II.C.1 and proposed rule § 1.3(x)(2).

with the AT Person having the option of delegating this responsibility to the relevant futures commission merchant (FCM). Meanwhile, any electronic trading from entities other than AT persons will also be subject to two levels of pre-trade risk controls: one level set by the DCM and one by the FCM. As a result, under this proposal, we will be ensuring that every single electronic trade, automated as well as non-automated, in our markets is subject to two levels of pre-trade risk controls without exception. Given the nearly constant technological innovations and redesigns involving algorithmic trading, I believe having two levels of risk controls is not only the most prudent course of action for our markets, it is also critical protection against a market malfunction harming investors or our broader economy. For those of you worried that automated trading is occurring free of any oversight or regulation, this rule seeks to allay some of those fears.

As I have said before, however, this regulation is merely a first cut. Having looked at this issue for nearly a year, I have some doubts whether we are doing enough to ensure that all market participants, especially end-users in certain markets, are being given a level-playing field at present due to the proliferation of algorithmic trading. I therefore believe that we should consider instituting pilot programs in certain small sections of the market that can test the effects of additional, more substantial restrictions on algorithmic trading on market operations. Please note, I do not believe it is the time to place more rigorous restrictions on algorithmic trading on all the markets we regulate. Instead, I believe only that we should see whether there are some markets where a significant percentage of end-users are interested in establishing greater monitoring and regulation of algorithmic trading. If one or two such markets do exist, then those markets could be candidates for a tailored pilot program to gather data on the effects of

algorithmic trading on those markets. We could then gain important insight on the effects of new market dynamics that continue to evolve. If you are an end-user and believe that your market would benefit from such a tailored pilot program, I encourage you to convey that message to the Commission.

I had the pleasure of meeting with some members of the National Cattlemen's Beef Association earlier this year and more recently, who informed me that they believe algorithmic trading is having a substantial impact on livestock markets and that they are interested in gaining more data on how algorithmic trading is influencing livestock prices. I share a desire for more information, both about whether this rule is regarded as being a step in the right direction and about what, if any, effects algorithmic trading is having on our markets. If an observer has an issue with any part of this rule, especially if you feel it is too weak, I sincerely hope you will lay out that concern in detail and let us know how we can improve it.

Finally, I want to thank stakeholders, particularly several industry groups, for their engagement with the Commission since we released our proposal. I was very happy to learn that some aspects of this proposal, including the idea of requiring pre-trade risk controls on all electronic trades, were suggested by members of the industry. We have notice and comment requirements for many reasons: increased transparency, an opportunity for public involvement, and of course to set procedural strictures on the government. But one of the reasons undergirding our system of notice and comment is the idea that regulators do not have all the answers all of the time, and there is a role for market participants to play during the regulatory process. The fact that industry

participants were able to devise and endorse a broad regulatory requirement on all automated trading is to be commended.

Appendix 4 – Dissenting Statement of Commissioner J. Christopher Giancarlo

Introduction

I have previously said that proposed Regulation Automated Trading (Reg. AT) is a well-meaning attempt by the Commodity Futures Trading Commission (CFTC or Commission) to catch up to the digital revolution in U.S. futures markets.[1] However, I have also raised some concerns ranging from the prescriptive compliance burdens to the disproportionate impact on small market participants to the regulatory inconsistencies of the proposed rule.[2] I have also warned that any public good achieved by the rule is undone by the now notorious source code repository requirement.[3] Not surprisingly, dozens of commenters to the proposal echoed my concerns and vehemently opposed the source code requirement.

So, here we are again almost a year later to consider a Supplemental Notice of Proposed Rulemaking on Regulation Automated Trading (Supplemental Notice) because proposed Reg. AT missed the mark the first time around.[4]

This Supplemental Notice does improve proposed Reg. AT in some respects, such as moving from three levels of risk controls to two levels in order to simplify the framework and narrowing the scope of registration so it may not capture smaller market

[1] Opening Statement of Commissioner J. Christopher Giancarlo before the CFTC Staff Roundtable on Regulation Automated Trading, June 10, 2016, http://www.cftc.gov/PressRoom/SpeechesTestimony/giancarlostatement061016.
[2] Regulation Automated Trading, 80 FR 78824, 78945-48 (Dec. 17, 2015).
[3] Id. at 78947.
[4] I note that at a time when the CFTC continuously pleads for additional resources, this is an example where the Commission could have saved a lot of time and effort if it spent a little more time up front to craft a sensible proposed Reg. AT.

participants. However, the Supplemental Notice does not go far enough. It subjects the source code retention and inspection requirements to the special call process and provides an unworkable compliance process for AT Persons[5] that use software from third-party providers.

I proposed several reasonable changes to the Commission and staff in an effort to make the Supplemental Notice workable and less burdensome, while still achieving its objectives. It is disappointing that those changes were not accepted. On a brighter note, the Commission has agreed to extend the comment period from 30 days to 60 days. While a longer comment period may provide some comfort to commenters that they do not have to rush to finish their comment letters over the Thanksgiving holiday, it does nothing to address my substantive issues. I am certain that many commenters will once again echo my concerns.

While I could focus on a number of issues with proposed Reg. AT and the Supplemental Notice, I will first concentrate my statement on the source code issue and then the third-party software provider requirements. Thereafter, I will discuss a few other topics, such as the prescriptive nature of the proposal and burdensome reporting requirements. I welcome comments on all these issues and others.

Source Code Retention and Inspection Requirements

No Subpoena Means No Due Process of Law

Let me make clear at the outset that the CFTC can today obtain the computer source code of market participants pursuant to a subpoena. Therefore, the issue raised by proposed Reg. AT and this Supplemental Notice is NOT whether the CFTC can examine

[5] As defined in the Supplemental Notice.

source code of automated traders where appropriate to investigate suspected market misbehavior. The issue raised by this proposal is whether the owners of source code have any say in the matter.

The subpoena process provides property owners with due process of law before the government can seize their property. It protects owners of property – not the government that already has abundant power. It allows property owners an opportunity to challenge the scope, timing and manner of discovery and whether any legal privileges apply to the process of surrendering property to the government.

The subpoena process therefore provides a fair compromise between the rights of property owners and the government's right to seize their property. Without the subpoena process, there is no balance between the civil liberties of the governed and the unlimited power of the government.

As a foundation of civil liberties, the subpoena process precedes the American Republic going back to English common law. As a legal principle, it was woven into the Bill of Rights. As a bulwark of modern civil society, it protects the liberty of the governed from the tyranny of the government.

The Supplemental Notice before us today, however, would strip owners of intellectual property of due process of law. The CFTC justifies this abridgement of rights with the condition that before the Commission can take source code[6] it will abide by two

[6] I also note my concern with the breadth of the new Algorithmic Trading Source Code definition and invite comment on it.

procedural hurdles – a majority vote of the Commission and the special call process operated by the Division of Market Oversight (DMO).[7]

This justification entirely misses the point. Abrogating the legal rights of property owners is not assuaged by imposing a few additional procedural burdens on the government agency seizing their property. Source code owners will have lost any say in the matter. The proposal gives unchecked power to the CFTC to decide if, when and how property owners must turn over their source code.

Moreover, the special call process provides the CFTC an end-run-around the subpoena process. While the Supplemental Notice states that the CFTC will use the special call process to obtain source code in carrying out its market oversight responsibilities, there is no limit in the proposed rule on DMO staff from sharing source code with staff of the Division of Enforcement. The proposal will allow the Enforcement Division to view source code without bothering with a subpoena. Such sharing of information will likely become routine if this proposal is finalized.

No Specific Source Code Protections

Commenters have rightly questioned what level of security the CFTC will deploy to safeguard seized source code. In an attempt to assure market participants that their source code will be kept secure, the Supplemental Notice lists the various statutes and regulations that require confidentiality of such information. The proposed rule text also

[7] The Supplemental Notice allows the Commission to authorize the Director of DMO to execute the special call and to specify the form and manner in which records shall be produced. DMO's existing special call process has not operated without operational error or inadvertent disclosure of confidential information. The process should be subject to enhanced checks and balances, procedural controls and greater objectivity in targeting market behavior.

includes a reference to Commodity Exchange Act (CEA) section 8(a), which prohibits the release of trade secrets and other information.[8]

Yet, these are not new protections. They are in place today. Simply citing them in the preamble and rule text of the Supplemental Notice gives little assurance that the CFTC will safeguard source code. If the agency is determined to protect confidentiality, then it should include specific protections in the rule. For example, the CFTC could provide that it will only review source code at a property owner's premises or on computers not connected to the Internet. The CFTC could also state that it will return all source code to the property owner once its review is finished. The rule text provides no such assurances.

Absent specific measures, it is absurd to suggest that source code will be kept secure. Just look at the area of government cybersecurity. In the six months after the CFTC proposed Reg. AT, hackers breached the computer networks of the Federal Deposit Insurance Corporation and the Federal Reserve.[9] Incredibly, the U.S. Office of Personnel Management (OPM) that gave up 21.5 million personnel records in a year-long cyber penetration failed a security audit last November – six months after the breach was discovered.[10] In fact, federal, state and local government agencies rank last in

[8] 7 U.S.C. 12(a); CEA section 8(a).
[9] Katie Bo Williams, Criminal Investigation Underway into Banking Regulator Data Breach, The Hill, May 12, 2016, http://thehill.com/policy/cybersecurity/279752-criminal-investigation-open-in-fdic-data-breach; Dustin Volz and Jason Lange, U.S. Lawmakers Probe Fed Cyber Breaches, Cite 'Serious Concerns', Reuters, June 3, 2016, http://t.reuters.com/article/topNews/idUSKCN0YP281.
[10] U.S. Office of Pers. Mgmt. Office of the Inspector Gen. Office of Audits, 4A-CI-00-15-011, Federal Information Security Modernization Act Audit FY 2015, Nov. 10, 2015; See also, Jack McCarthy, OIG Finds OPM Still Struggling with Security, Healthcare IT News, Nov. 30, 2015, http://www.healthcareitnews.com/blog/oig-finds-opm-still-struggling-security (discussing OIG's findings of OPM's security protocols six months after a massive data breach).

cybersecurity when compared against 17 major private industries, including transportation, retail and healthcare.[11]

The CFTC itself has an imperfect record as a guardian of confidential proprietary information.[12] If this rule goes forward, the CFTC will make itself a target for a broader group of cyber criminals, including those engaged in commercial espionage.

Last Friday, we learned that a former employee of the Office of the Comptroller of the Currency (OCC) downloaded thousands of files from the agency's servers onto two removable thumb drives without authorization prior to retiring from the agency.[13] The OCC said that when it contacted the former employee about those files, he was "unable to locate or return the thumb drives to the agency."[14]

The OCC breach surely sent shivers up the spines of source code owners who received notice that same day of the CFTC's intention to move forward with the Supplemental Notice. They must have been doubly spooked when the CFTC's own servers crashed a few hours later due to a denial-of-service attack.

Establishment of Dangerous Regulatory Precedent

If the CFTC adopts the source code provisions of the Supplemental Notice, the Securities and Exchange Commission (SEC) will likely copy it and so will other U.S. and

[11] Dustin Volz, U.S. Government Worse than All Major Industries on Cyber Security: Report, Reuters, Apr. 14, 2016, http://mobile.reuters.com/article/idUSKCN0XB27K.
[12] See generally Bart Chilton, The Government Can't be Trusted to Collect Source Code and Other Private Property, Business Insider, Nov. 1, 2016, http://www.businessinsider.com/bart-chilton-government-cant-be-trusted-to-collect-source-code-2016-11; Gregory Meyer and Philip Stafford, US Regulators Propose Powers to Scrutinise Algo Traders' Source Code, Financial Times, Dec. 1, 2015, https://www.ft.com/content/137f81bc-944f-11e5-b190-291e94b77c8f.
[13] Ben Lane, OCC Reveals Major Information Security Breach Involving Former Employee, HousingWire, Oct. 28, 2016, http://www.housingwire.com/articles/38402-occ-reveals-major-information-security-breach-involving-former-employee.
[14] Id.

overseas regulators – and not just regulators of financial markets.[15] Regulators like the Federal Communications Commission may demand source code for Apple's iPhone. The Federal Trade Commission may seek source code used in the matching engines of Google, Facebook and Snapchat. The National Security Agency may demand to see the source code of Cisco's switches and Oracle's servers. The Department of Transportation may demand Uber's auction technology and Tesla's driverless steering source code. Where does it end?

It certainly will not end on American shores. Overseas regulators will also mimic the rule. The German chancellor has said that she wants her government to examine the source code used in the matching engines of Google and Facebook because she does not like their political coverage of her administration.[16] The Chinese government has already tried to put in place a rule to obtain the source code of U.S. technology firms.[17] If the CFTC adopts this rule, it will make a mockery of the U.S. government's past attempts to oppose China's efforts to view proprietary commercial source code.[18] It confirms that the CFTC is not on the same page as its own U.S. government counterparts.

Undoubtedly, this proposed rule is a reckless step onto a slippery slope. Today, the federal government is coming for the source code of seemingly faceless algorithmic trading firms. Tomorrow, however, governments worldwide may come for the source

[15] Congressman Sean P. Duffy Letter to SEC Chair Mary Jo White, Aug. 10, 2016, http://modernmarketsinitiative.org/wp-content/uploads/2016/08/16.08.10-Automated-Trading-Letter-to-SEC.pdf.
[16] Article, Angela Merkel wants Facebook and Google's Secrets Revealed, BBC, Oct. 28, 2016, http://www.bbc.com/news/technology-37798762.
[17] Eva Dou, U.S., China Discuss Proposed Banking Security Rules, The Wall Street Journal, Feb. 13, 2015, http://www.wsj.com/articles/china-banking-regulator-considering-source-code-rules-1423805889; Shannon Tiezzi, US-China Talk Intellectual Property, Market Access at Trade Dialogue, The Diplomat, Nov. 25, 2015, http://thediplomat.com/2015/11/us-china-talk-intellectual-property-market-access-at-trade-dialogue/.
[18] Id. Congressmen Scott Garrett and Randy Neugebauer Letter to CFTC Chairman Timothy Massad, Aug. 3, 2016, http://modernmarketsinitiative.org/wp-content/uploads/2016/08/20160802-ESG-RN-Letter-to-CFTC-re-Reg-AT2.pdf.

code underlying the organizing and matching of Americans' personal information – their snapchats, tweets and instagrams, their online purchases, their choice of reading material and their political and social preferences. Seriously, where will it end?

Possible Constitutional Challenge

Fortunately, our country's founders protected Americans against unreasonable searches and seizures and guaranteed them due process of law in the U.S. Constitution. The Supreme Court has routinely and recently upheld these fundamental civil rights. If the CFTC adopts the Supplemental Notice as proposed, its source code seizure provisions may be robustly challenged in federal court. The litigation will consume the agency's precious, limited resources and its credibility in defending such a dubiously constitutional rule. That will be a sad waste of American taxpayer money.

The CFTC justifies its actions based on its need to oversee the growing incidence of algorithmic trading and disruption in the financial markets. Given the relative ease of obtaining an administrative subpoena,[19] I disagree with the assertion in the proposal that the special call process is necessary to review source code in association with usual trading events or market disruptions. The subpoena and the proposed special call process both require a Commission vote. One process is therefore not faster than the other. The only difference is that the special call process is an end-run-around the subpoena process and deprives source code owners of due process of law.

Third-Party Software Providers

If the source code requirements are not bad enough, AT Persons who use third-party algorithmic trading systems and those third-parties are in for a real treat. Under the

[19] United States v. Morton Salt Company, 338 U.S. 632 (1950).

Supplemental Notice, AT Persons who use third-party trading systems are liable for turning over the source code of the third-party providers. An AT Person has no control over a third party's source code. And, third-parties have already said that they will not give out their source code.[20]

In addition, the Supplemental Notice requires an AT Person who uses a third-party algorithmic trading system to obtain a certification and conduct due diligence to ensure that the third-party is complying with the development and testing requirements in proposed Reg. AT. The AT Person must obtain a new certification each time there is a material change to such third-party's system.

These requirements are infeasible and could harm innovation and intellectual property rights. Participants at the Regulation AT roundtable also found the certification and due diligence suggestion impractical.[21] One commenter said it could hurt smaller third-party vendors.[22] Another commenter said that AT Persons may not have the necessary expertise to perform due diligence of third-party systems.[23] They are correct. The CFTC must revisit these requirements. I invite commenters to propose less burdensome solutions.

Other Issues

Finally, let me highlight three issues: (1) the prescriptive nature of risk controls and development and testing requirements; (2) burdensome reporting requirements; and (3) the need for a phased-in implementation process. I reassert the issues I raised from

[20] Trading Technologies, Staff Roundtable, Elements of Proposed Regulation Automated Trading, Transcript, at 250-252, June 10, 2016 (Roundtable Tr.), http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/transcript061016.pdf.
[21] Id. at 239.
[22] Id.
[23] Tethys Technology, Roundtable Tr. at 248.

proposed Reg. AT last year. I thank the many commenters for responding to those questions and concerns.

Prescriptive Nature of Risk Controls and Development and Testing Requirements

When proposed Reg. AT was issued, I noted that the CFTC is basically playing catch-up to an industry that has already developed and implemented risk controls and related testing standards for automated trading.[24] I supported a principles-based approach to risk controls and testing that built upon, rather than hindered ongoing industry efforts.[25]

Many commenters to Reg. AT supported such a principles-based approach to risk controls and development and testing requirements and noted that proposed Reg. AT was too prescriptive.[26] Commenters supported providing participants' flexibility to determine which risk controls are needed and how those controls are applied and administered based on each participant's unique risk profile and business situation.[27] Commenters also noted that many of the proposed development and testing requirements are not practical and do not reflect how software is customarily developed, tested, deployed and monitored.[28]

I believe that the marketplace has implemented effective best practices and procedures for risk controls and development and testing of automated trading systems that account for different types of systems and businesses. Reg. AT's approach is a one-size-fits-all model that does not take into account individual circumstances. For example,

[24] 80 FR at 78945.
[25] Id. at 78946.
[26] See, e.g., FIA Comment Letter at 3, 4-5 (Mar. 16, 2016); CME Comment Letter at 6, 7-8 (Mar. 16, 2016); ICE Comment Letter at 10 (Mar. 16, 2016); CTC Comment Letter at 1 (Mar. 15, 2016).
[27] See, e.g., FIA Comment Letter at 3 (Mar. 16, 2016); CME Comment Letter at 7-8 (Mar. 16, 2016).
[28] See, e.g., FIA Comment Letter at 5 (Mar. 16, 2016); CTC Comment Letter at 12-14 (Mar. 15, 2016).

the proposed risk controls may not apply to all market participants or at all levels and may have negative unintended consequences.[29] The proposed development and testing requirements will require AT Persons to make costly changes to existing business practices and procedures with no material market benefit.[30] Once again, I urge the CFTC to adopt a principles-based approach in the final rule so that AT Persons have the necessary flexibility to administer controls and testing based on their trading and risk profiles.

Still Burdensome Reporting Requirements

The Supplemental Notice replaces the requirement in proposed Reg. AT that AT Persons and clearing member futures commission merchants (FCMs) prepare certain annual reports with an annual certification requirement. While that is positive, the Supplemental Notice requires designated contract markets (DCMs) to establish a program for effective periodic review and evaluation of AT Persons' and FCMs' compliance with risk controls and other requirements. The Supplemental Notice also retains proposed Reg. AT's requirement that the DCM must identify and remediate any insufficient mechanisms, policies and procedures, including identification and remediation of any inadequate quantitative settings or calibrations of pre-trade risk controls required of AT Persons.

The Supplemental Notice touts the significantly decreased costs and enhanced flexibility to DCMs in designing a compliance program by replacing the annual reports with a certification requirement. I am not so sure that will be the case. The Supplemental Notice does not eliminate the compliance program altogether and replace it

[29] See, e.g., FIA Comment Letter, Attachment A at 24-25 (Mar. 16, 2016).
[30] See, e.g., CTC Comment Letter at 12 (Mar. 15, 2016).

with a certification requirement. DCMs must still establish such a program and review and evaluate AT Persons' and FCMs' compliance with risk control and other requirements. I am concerned that this requirement could necessitate DCMs hiring additional staff to conduct periodic reviews with limited benefits for reducing risk.

Even more problematic, DCMs are on the hook to identify and remediate any insufficient mechanisms, policies and procedures, including inadequate quantitative settings or calibrations of pre-trade risk controls. The Supplemental Notice acknowledges, but dismisses, DCMs' own concerns that they lack the technical capability to assess whether the quantitative settings or calibrations of AT Persons' controls are sufficient.[31] In my statement on proposed Reg. AT, I suggested a much simpler process of self-assessments like FINRA requires.[32] Commenters also suggested similar less burdensome processes.[33] I urge the Commission to revisit this provision and provide a more workable solution that does not hold DCMs liable for identifying and remediating inadequate settings of AT Persons.

Any Final Rule Must be Phased-In

Proposed Reg. AT and this Supplemental Notice if finalized in their current form will be a huge undertaking for all parties involved. The Futures Industry Association (FIA) estimated that it could take several years to implement.[34] In this regard, FIA recommended that the CFTC implement Reg. AT in three separate rules: pre-trade and other risk controls, policies and procedures regarding development and testing of

[31] CME Comment Letter at 20 (Mar. 16, 2016); ICE Comment Letter at 9-10 (Mar. 16, 2016); FIA Comment Letter at 10 (Mar. 16, 2016); MGEX Comment Letter at 16-17 (Mar. 16, 2016).
[32] 80 FR at 78947.
[33] CME Comment Letter at 20 (Mar. 16, 2016); ICE Comment Letter at 9-10 (Mar. 16, 2016); FIA Comment Letter at 10 (Mar. 16, 2016); MGEX Comment Letter at 16-17 (Mar. 16, 2016).
[34] FIA Comment Letter at 11 (Mar. 16, 2016).

algorithmic trading systems and registration.[35] Other commenters also recommended phased-in rulemakings.[36]

Reg. AT is a major rulemaking that covers a broad range of automated trading issues. Commenters asserted that the costs of the proposal are substantially higher than estimated by the Commission and provided quantitative estimates to back up their assertions.[37] The Supplemental Notice does not do enough to fix the issues with proposed Reg. AT and reduce unnecessary costs on the marketplace. Given the scope of Reg. AT and the cost concerns, I believe the CFTC should at least phase-in the implementation process for any final Reg. AT rulemaking. I invite commenters to provide suggestions on how to do so.

Conclusion

It has been my general practice as a CFTC commissioner to vote in support of publishing proposed rules for public comment even when I have substantial concerns and issues. That is because on most proposals reasonable people can have differences of opinion. I try to hear a broad range of sensible views before making a final decision. I have also taken this approach because of the enormous respect I have for my two fellow commissioners. It continues to be an honor to serve alongside them.

So, it is a disappointment that on this rule I must depart from my preferred practice of voting in favor of proposed rulemakings.

Reg. AT is unlike any other rule proposal that I have seen in my time of service. What should be a step forward by the agency in its mission to oversee twenty-first

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[35] Id. at Attachment A at 14-15.
[36] MGEX Comment Letter at 3 (Mar. 16, 2016); NASDAQ Futures Comment Letter at 2 (Mar. 16, 2016).
[37] See, e.g., CME Comment Letter at 5 (Mar. 16, 2016); MFA Comment Letter at 34-35 (Mar. 16, 2016); MGEX Comment Letter at 25-28 (Mar. 16, 2016).

century digital markets is squandered by its giant stumble backwards in undoing Americans' legal and Constitutional rights.

The Commission recommends that we adopt this Supplemental Notice in order to address the growing incidence of algorithmic trading and to determine if algorithms are disrupting financial markets. That is all well and good. Automated trading presents a number of critical challenges to our markets.[38] My many meetings with America's farmers and ranchers have confirmed the importance of enhancing the CFTC's ability to catch-up to the digital transformation of twenty-first century futures markets.[39]

Yet, jettisoning the subpoena process does nothing to address the challenge of automated trading given the existing ease and speed of obtaining an administrative subpoena.[40]

Benjamin Franklin is said to have warned that "A people that are willing to give up their liberty for temporary security deserve neither – and will lose both."

Franklin was right. Reg. AT is a threat to Americans' liberty AND their security. After twelve score years of ordered freedom, it is a degree turn in the direction of unchecked state authority. If adopted in its present form, it will put out of balance centuries-old rights of the governed against the creeping power of the government.

Thus, I have no choice but to vote against this proposal.

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[38] See Guest Lecture of Commissioner J. Christopher Giancarlo, Harvard Law School, Fidelity Guest Lecture Series on International Finance, Dec. 1, 2015, http://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo-11.

[39] See Address of CFTC Commissioner J. Christopher Giancarlo to the American Enterprise Institute, 21st Century Markets Need 21st Century Regulation, Sept. 21, 2016, http://www.cftc.gov/PressRoom/SpeechesTestimony/opagiancarlo-17.

[40] United States v. Morton Salt Company, 338 U.S. 632 (1950).

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