May 1, 2017

Mr. Christopher Kirkpatrick
Secretary
U.S. Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

Re: Comment Letter on Proposed Regulation Automated Trading, Supplemental Notice of Proposed Rulemaking (RIN 3038-AD52)

Dear Mr. Kirkpatrick:

The Asset Management Group of the Securities Industry and Financial Markets Association ("SIFMA AMG" or "AMG")\(^1\) welcomes the opportunity to provide the U.S. Commodity Futures Trading Commission (the "Commission") with comments regarding the Commission’s supplement to proposed Regulation Automated Trading (the "Supplemental Proposal",\(^2\) and together with the regulations originally proposed in the Commission’s 2015 Proposal, the "2015 Proposal",\(^3\) collectively referred to herein as "Proposed Reg AT").

While AMG supports the Commission’s aim of protecting futures exchanges and market participants from the potential risk of market disruption that could be caused by a lack of controls on certain types of algorithmic trading, AMG does not support the unnecessarily complex, overbroad,

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1 SIFMA AMG brings the asset management community together to provide views on policy matters and to create industry best practices. SIFMA AMG’s members represent U.S. and multinational asset management firms whose combined global assets under management exceed $39 trillion. The clients of SIFMA AMG member firms include, among others, tens of millions of individual investors, registered investment companies, endowments, public and private pension funds, UCITS and private funds such as hedge funds and private equity funds.


redundant, burdensome, and costly framework that would be imposed by Proposed Reg AT, as originally formulated in the 2015 Proposal and as modified in the Supplemental Proposal.

The Supplemental Proposal failed to address our concerns with the 2015 Proposal and even adds layers of complexity to the already overly complex regulation. In our prior comment letter, we expressed concerns that the 2015 Proposal:

(i) imposed duplicative tools, policies and procedures upon every registration category and mode of automated trading regardless of risk level;

(ii) mandated controls not tailored to the risks presented by different types of automated trading systems and different types of access to designated contract markets (“DCMs”), including requirements not tied to market participant’s risk level, real-time monitoring by non-trading personnel, costly annual report requirements, and risks posed to highly-proprietary source code without measurable benefits;

(iii) interfered with the use of appropriate self-trade prevention tools; and

(iv) premised enforcement upon system or procedural failures alone.

The Supplemental Proposal addressed a few concerns, like the annual report requirement, but did not effectively address most of AMG’s concerns. While the Supplemental Proposal adds a volume threshold test that purports to limit the number of persons that would be deemed AT Persons, this test is poorly constructed and would impose significant calculation, administrative burdens and costs on many market participants that would undermine its purpose of limiting the burdens of the regulation. The Supplemental Proposal would also permit delegation by an AT Person of regulatory obligations required by Proposed Regulation 1.80(a) or (g) to its executing futures commission merchant (“FCM”). We agree that delegation of certain requirements by AT Persons could be one way of alleviating redundant and unnecessary burdens. But the delegation mechanism and conditions as proposed are unnecessarily complex and burdensome, and ignore the fundamental premise that these regulatory obligations should not be imposed on AT Persons in the first instance. Moreover, the Supplemental Proposal would further broaden the application of Proposed Reg AT to registered commodity pool operators (“CPOs”) and commodity trading advisors (“CTAs”) by expanding the

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4 Letter from Timothy Cameron, Head of SIFMA AMG, and Laura Martin, Managing Director and Associate General Counsel of SIFMA AMG, to Christopher Kirkpatrick, Secretary of the U.S. Commodity Futures Trading Commission (Mar. 16, 2016), available at: http://www.sifma.org/issues/item.aspx?id=858959344 (“SIFMA AMG Comment Letter”). We attached the SIFMA AMG Comment Letter as an exhibit hereto and incorporate its contents into this comment.
For the reasons stated in our prior comment letter and below, AMG believes that moving forward with Reg AT is not necessary. If the Commission believes, however, that regulation of automated trading is necessary, we urge the Commission to not deviate from established industry standards for controlling these risks (absent demonstrated need to do so), focus on non-redundant regulations and jettison the flawed, cumbersome registration requirements proposed.

I. Proposed Reg AT Should Not Be Adopted

Proposed Reg AT is inconsistent with the regulatory reform principles enunciated by the Administration and Acting Chairman Giancarlo. Pursuant to the Presidential Executive Order on Enforcing the Regulatory Reform Agenda (the “Executive Order”), an agency’s Regulatory Reform Task Force is responsible for identifying regulations that, among other things, “impose costs that exceed benefits” and to make recommendations on the repeal, replacement, or modification of such regulations. A Regulatory Reform Task Force is responsible for “seek[ing] input and other assistance, as permitted by law, from entities significantly affected by Federal regulations, including…trade associations”. Although the Commission, as an independent agency, is technically not bound by the Executive Order, Acting Chairman Giancarlo has implemented a similar regulatory reform effort at the Commission, “Project KISS”, and designated a Regulatory Reform Officer consistent with the Executive Order. In announcing Project KISS, Acting Chairman Giancarlo described the goal as to “regulate smarter”. Also, pursuant to the Presidential Executive Order on Reducing Regulation and Controlling Regulatory Costs, for every one new regulation issued, at least two prior regulations must be identified for elimination, and that the cost of planned regulations be prudently managed and controlled through a budgeting process.

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5 Presidential Executive Order on Enforcing the Regulatory Reform Agenda, Section 3(d)(iii) (Feb. 24, 2017).

6 Id. Section 3(e).

7 J. Christopher Giancarlo, Acting Chairman, Commodity Futures Trading Commission, Address at the 42nd Annual International Futures Industry Conference (Mar. 15, 2017).

8 Presidential Executive Order on Reducing Regulation and Controlling Regulatory Costs (Jan. 30, 2017). Again, while this executive order does not directly apply to independent agencies, Acting Chairman Giancarlo cites to this executive order as though it applies to the Commission when he states that “the CFTC will embrace President Trump’s directive that each federal agency minimize the costs borne by their regulation.” J. Christopher Giancarlo, Acting Chairman, Commodity Futures Trading Commission, Address at the 42nd Annual International Futures Industry Conference (Mar. 15, 2017).
Proposed Reg AT is the prototype of the kind of regulation that should be scrutinized under both of the Executive Orders and Project KISS. Proposed Reg AT is overly complex and would impose new and costly burdens on market participants, as well as on the Commission. As noted in our prior comment letter, the futures industry currently adheres to and benefits from an existing best practice and regulatory framework applicable to algorithmic trading implemented by DCMs that largely addresses the goals of Proposed Reg AT.9 The Commission has authority to oversee DCMs and could easily exercise such authority to monitor existing DCM risk controls over algorithmic trading. Proposed Reg AT would impose on market participants additional unnecessary, redundant, burdensome and costly layers of regulatory oversight. Proposed Reg AT’s costs will far exceed any incremental benefits the Commission’s proposed redundant framework may provide that are not already being achieved by DCMs. The regulation of algorithmic trading is a good example of where the Commission, which has limited financial and personnel resources, could wisely utilize the resources and expertise of other self-regulatory organizations (such as DCMs) in administering regulatory goals and to “regulate smarter”.

Proposed Reg AT should not be adopted in light of the Administration’s regulatory reform agenda and the Commission’s Project KISS. As we describe herein and in our prior comment letter, Proposed Reg AT is not simple and, instead, introduces new compliance challenges that are wholly unnecessary by virtue of existing DCM risk controls applicable to algorithmic trading. If, however, the Commission proceeds with adopting Proposed Reg AT in some form, SIFMA AMG requests that the Commission “keep it simple”, without imposing redundant or unnecessary compliance burdens or costs that could unduly impede liquidity, innovation or make U.S. futures markets unattractive in an increasingly competitive global derivatives market. SIFMA AMG offers its suggestions on “keeping it simple”.

II. The Supplemental Proposal Continues to Impose Requirements Upon Almost All Electronic Trading and Creates Unnecessary Burden Through New Registration Category

A. The Commission Should Limit the Scope of Algorithmic Trading to Trading that Presents Higher Risk

In SIFMA AMG’s previous comment letter, SIFMA AMG recommended that Proposed Reg AT encompass only persons who use Black Box trading10 (i.e., a type of automated trading technology used to both generate and submit orders to a DCM without pre-trade human intervention) as distinguished from market participants who use automated order routing systems (“AORS”) where human intervention or FCM risk control intermediation prior to order submission to a DCM is

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9 SIFMA AMG Comment Letter, 6-7.
required. SIFMA AMG recommended that Proposed Reg AT’s risk controls be based on the degree of a trader’s interaction with a DCM, and thereby the degree of risk that such trader presents. An algorithmic trader using a Black Box to trade on a DCM through direct electronic access (“DEA”), whose order does not flow through or is not otherwise subject to an executing FCM’s risk controls before reaching the DCM, introduces a greater set of risks to the marketplace than a trader with only indirect access to a DCM whose order flows through and is subject to an executing FCM’s risk controls. Consistent with this recommendation, SIFMA AMG encouraged the Commission to clarify that the definition of “Algorithmic Trading” does not include automated trading systems, such as execution algorithms or volume-weighted average price trading strategies. Essentially, we recommended that all trading functionality that uses AORS, where human intervention or FCM risk control intermediation is in effect before a person may submit an order, should be excluded from the definition of “Algorithmic Trading” and, therefore, fall outside the scope of Proposed Reg AT.

Rather than more carefully tailoring the application of Proposed Reg AT to the type of algorithmic trading that presents a potential risk, instead, the Supplemental Proposal would expand Proposed Reg AT to capture AORS and, some new provisions apply to all electronic trading. SIFMA AMG continues to believe that Black Box trading presents the greater potential for risk to the market and encourages the Commission to reconsider the unnecessarily broad scope of Proposed Reg AT. The expansion of the scope of the proposed rule is contrary to the principles of smart regulation; it adds significant regulatory burdens and costs on market participants whose trading does not pose the type of risk that the rule should be addressing. However, in light of the Commission’s proposed expansion of the scope of the proposed rule, our comments below have been formulated to address the possibility that Proposed Reg AT encompasses all electronic trading.

B. The Commission Should Focus on Risk Controls Rather than AT Person Status

The Commission should eliminate the AT Person category and the associated AT Person compliance regime and, instead, adopt pre-trade risk controls at two levels: (1) the executing broker level (or, for only those market participants utilizing algorithms through DEA, at the market participant level); and (2) the DCM level. In the Supplemental Proposal the Commission claims that it has modified Proposed Reg AT from a three-level to a two-level risk control environment, thereby reducing duplication and redundancies and providing a more cost-effective approach to the implementation of risk controls for Algorithmic Trading. However, in reality, under the Supplemental Proposal, AT Persons, as well as executing FCMs and DCMs, would all have obligations under Proposed Reg AT. For example, an AT Person would be required to implement risk controls on its algorithmic and electronic trading order messages (or delegate compliance with such obligation to an executing FCM). An executing FCM would be required to implement risk controls on all electronic

11 See, e.g., Proposed Regulation 1.80.
orders submitted by non-AT Person customers. Such distinction does not make sense and, in practice, may present a greater compliance burden than requiring an executing FCM to apply risk controls on all electronic orders without distinguishing between customers. A true two-level approach should simply apply only to DCMs and executing brokers, or only those market participants utilizing algorithms through DEA. There is no need to adopt an AT Person designation in a true two-level approach. Additionally, the Commission should clarify that Proposed Reg AT would apply at the executing broker level. By “executing broker”, we mean any executing brokers registered with the Commission in any capacity, including FCMs, introducing brokers (“IBs”) and floor broker (“FBs”), collectively “Executing Brokers”.

Fundamentally, a market participant should not be considered to be engaged in “Algorithmic Trading” (and, as a result, should not be considered an AT Person) when the market participant transmits orders to an Executing Broker, whose algorithmic trading system then transmits its client’s orders to a DCM. In this scenario, the Executing Broker controls and has access to the algorithm’s source code and may adjust its settings or make material changes to the algorithm. The market participant that merely transmits an order to the Executing Broker does not have access, and cannot make changes, to the algorithm’s source code and associated risk controls, and does not present risk to the market that cannot be monitored and controlled by the Executing Broker. Thus, the market participant should not be considered to be engaged in algorithmic trading by virtue of transmitting orders through its Executing Broker’s algorithmic trading system.

Our suggested approach would greatly simplify an overly complex and burdensome proposed rule by:

- Focusing only on the type of algorithmic trading that presents a higher risk of market disruption;
- Obviating the need for a separate category of AT Person and a volume threshold test to determine AT Person status;
- Eliminating the need for an AT Person to obtain a third-party certification regarding third-party provided trading systems; and
- Eliminating the need for an AT Person to delegate compliance obligations to an Executing Broker.

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12 See, e.g., Proposed Regulation 1.82.
III. AT Person Status, If Required, Should Be Refocused and Simplified

A. The AT Person Category Should Not Automatically Include CPOs and CTAs Simply Because They are Registered as Such

Under the Supplemental Proposal, many AMG members would fall within the scope of AT Person because they are registered CPOs or CTAs that satisfy the new and broadly inclusive “volume threshold test” applicable to their electronic trading. As SIFMA AMG explained in its previous comment letter, asset managers generally do not access DCMs through DEA. Instead, asset managers’ orders pass through an FCM’s and DCM’s risk controls, and therefore the requirement that registered CPOs and CTAs that do not utilize DEA adopt the controls set forth in Proposed Reg AT are redundant with the control requirements relating to FCMs and DCMs. The redundancy of many of Proposed Reg AT’s proposals increases a market participant’s cost of compliance without any

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13 In the Supplemental Proposal the Commission proposes to revise the definition of “AT Person” to encompass any person registered or required to be registered as an FCM, floor broker, swap dealer, major swap participant, CPO, CTA, or IB that “[e]ngages in Algorithmic Trading on or subject to the rules of a designated contract market” and “[w]ith 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 [Commodity Exchange] 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”. Proposed Regulation 1.3(xxxx)(1)(i), Supplemental Proposal at 85,391.

14 Pursuant to Proposed Regulation 1.3(x)(2), a person satisfies the volume threshold test “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.” Supplemental Proposal, 81 Fed. Reg. at 85,391.

15 The term “Electronic Trading” would be defined to mean “trading in any commodity interest as defined in [Regulation 1.3(yy)] on an electronic trading facility as such term is defined by section 1a(16) of the [Commodity Exchange] 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”. Proposed Regulation 1.3(ddddd), Supplemental Proposal, 81 Fed. Reg. at 85,392.

16 SIFMA AMG Comment Letter, 5-6.
incremental risk control benefit, which is inconsistent with the Administration’s and Commission’s regulatory reform agenda.

If the Commission continues to retain the AT Person category, the definition of “AT Person” should not import every Commission registration status. As SIFMA AMG argued in its previous comment letter, the Commission should not determine AT Person status by reference to a market participant’s registration status where such status is not related to a role or function in executing algorithmic trades. The regulatory rationale for the registration of a CPO or CTA is due to the CPO’s or CTA’s responsibilities to investors whose funds are managed or who are being advised to trade in commodity interests by the CPO or CTA, and not because a CPO or CTA trades in a particular manner or uses algorithms.

The proposed inclusion of registered CPOs and CTAs within the definition of AT Person results in a significant artificial disparity by capturing CPOs and CTAs that are registered with the Commission but not those that are not required to register. Under the Supplemental Proposal, a person who uses an algorithm to generate orders, routes the orders to a DCM through an FCM (i.e., not through DEA) and is not otherwise registered with the Commission does not fall within the proposed AT Person definition, while a CPO or CTA that engages in the exact same algorithmic trading activity falls within the AT Person definition simply by virtue of the CPO’s or CTA’s registration status (thereby becoming subject to the burdens imposed by Proposed Reg AT). CPO or CTA registration status in and of itself does not present operational risk to, or threaten the integrity of, the markets, and such registration should not be used as a criterion or litmus test for AT Person status. The Supplemental Proposal fails to explain any policy reason to support the imposition of an entirely new regulatory regime on the algorithmic trading of CPOs and CTAs by virtue of their registration status while at the same time exempting other algorithmic traders that are engaged in identical trading activities as registered CTAs or CPOs but are not registered with the Commission. The Supplemental Proposal’s focus on the registration status of an algorithmic trader is misplaced.

The lack of any logical connection between a CTA’s or CPO’s registration status and the purpose of Proposed Reg AT will lead to considerable challenges to such asset managers attempting to apply the proposed rule. Many asset managers continue to struggle with foundational concepts, including the scope of Proposed Reg AT, primarily because the Commission has not simplified the

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17 SIFMA AMG Comment Letter, 7-9.

18 The 2015 Proposal itself appears to implicitly recognize, but does not justify, this disparity, offering three examples to illustrate when an algorithmic trader, such as an asset manager, would be deemed to be an AT Person. In all three examples, the algorithmic trader, a non-registrant, directs an order to an FCM using an algorithm, but the algorithmic trader does not use DEA. The Proposal states that the algorithmic trader is not an AT Person because “it is not registered and does not use DEA”. 2015 Proposal, 80 Fed. Reg. at 78,862-63.

key definitions or provided clear examples of Proposed Reg AT’s application. For example, it remains unclear whether an asset manager would be engaged in “algorithmic trading” when the asset manager enters an order in its Executing Broker’s or a third-party’s front-end system, or communicates the order parameters via voice or other direct communication to the Executing Broker, and requests that the order be submitted to a DCM using the Executing Broker’s algorithmic trading system.\(^{19}\) (AMG contends, in Sections II.B and III.D, that such asset manager should not be considered an AT Person.) If the Commission retains the AT Person category and includes registered CPOs or CTAs in the definition of “AT Person”, the definition should be clarified to apply only to the person directly engaged in algorithmic trading.\(^{20}\) For example, when a CPO engages in the common practice of appointing a third-party advisor to perform investment management duties on behalf of a fund operated by the CPO, the Supplemental Proposal should be revised to make clear that the CPO will not be deemed to be an AT Person so long as the CPO itself does not transmit algorithmic orders on behalf of the fund. It is this type of regulatory uncertainty and complexity that smart regulation should seek to avoid.

**B. The Newly-Proposed Volume Threshold Test Should Not Be Included As It Does Not Solve the Overly Broad Application of the Rule and Is Unduly Complex and Burdensome**

The volume threshold test does not appropriately limit the applicability of Proposed Reg AT and should not be a component of Proposed Reg AT. In the Supplemental Proposal, the Commission proposes to limit the number of persons who would qualify as AT Persons by adding a volume threshold test.\(^{21}\) A person would qualify as an AT Person only if it satisfies the volume threshold test.

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\(^{19}\) The application of Proposed Reg AT remains too uncertain to facilitate compliance, even with the Commission’s proposed confirmation in the Supplemental Proposal that AORS falls within the scope of the definition of “Algorithmic Trading”, which has the result of capturing the majority, if not all, electronic trading systems—and would capture electronic orders received through any API or GUI provided by an FCM, third-party ISV platform, and WebICE or CME Direct—within Proposed Reg AT.

\(^{20}\) The Commission asked whether a commodity pool itself should be considered an AT Person. *Id.* at 78,843-44 (Question 15). The answer is no. Importantly, pools do not act or trade of their own accord. A pool’s trading activities and any algorithmic trading activities are controlled by the operators or advisors of the pool, as applicable. If the Commission chose to define a pool as an AT Person, and require a pool’s sponsor or investment manager to become AT Persons, the pool’s sponsor or investment manager would be required to implement duplicative policies and procedures for itself and each pool that qualifies as an AT Person under the Proposal. Application of the Proposal on a pool-by-pool basis would lead to confusion and would not address the real issue, which is risk mitigation by the party directly engaged in the algorithmic trading activity.

\(^{21}\) See, *e.g.*, *supra* n.3.
The volume threshold test does not incorporate the Commission’s definition of “Algorithmic Trading” or otherwise encompass only trades entered on a DCM through algorithmic trading systems. Thus, to determine if a market participant has exceeded the volume threshold, the market participant must count trading on all “electronic trading facilities” across all DCMs on which the market participant trades. The result is an overbroad volume threshold test that encompasses more than trading volume generated from algorithmic trading systems, but, rather, essentially all electronic trading. This is inconsistent with the Commission’s goal of focusing on “automation of order generation, transmission, and execution, and the risks that may arise from such activity.”

1. The Volume Threshold Test Has Market-Wide Impacts and Presents Significant Operational Challenges

The volume threshold calculation is burdensome for every market participant potentially subject to Proposed Reg AT because each market participant will need to implement procedures and technology necessary to perform the calculation. Moreover, the volume threshold test requires a person to aggregate its own trading volume with that of any other persons controlling, controlled by or under common control with such person. For affiliated firms, the operational burden is magnified, in terms of performing the calculation across affiliates and determining which entities must register or be designated as AT Persons. The Commission discusses the aggregation requirement in the context of floor trader registration, but it is unclear whether the Commission intended to apply it to the AT Person definition by virtue of the inclusion of the aggregation requirement in the volume threshold test. Proposed Reg AT unnecessarily complicates how a Commission registrant with affiliates would apply the volume threshold test to determine when its affiliates must become registered as floor traders or when it or its affiliates must become AT Persons. We request the Commission to clarify that aggregation across affiliates is not a requirement for AT Persons.

If aggregation across affiliates were to apply, AMG recommends that the same principles underlying the Commission’s other exemptions from aggregation should apply to the volume aggregation requirement under Proposed Reg AT. For example, the Commission recently adopted exemptions from the requirement that firms aggregate positions for purposes of position limits compliance. In adopting exemptions from aggregation for owned entities, the Commission noted that “aggregation of positions held by owned entities may in some cases be impractical, burdensome, or not in keeping with modern corporate structures”. The Commission provides an exemption from position aggregation where a person has an ownership interest greater than 10 percent in an entity whose trading is independently controlled and submits a notice filing to the

The Commission should consider that the volume aggregation requirement would present the same “impractical, burdensome” hurdles “not in keeping with modern corporate structures” as the position aggregation requirements presented and modify the volume threshold aggregation requirement to provide exemptions for subsidiaries that employ different traders, trading programs or account controllers to execute commodity interest trading or where “common control” does not exist.

If the Commission retains the volume threshold test and requires aggregation across affiliates for all market participants, the Commission’s request for comment on “how the proposed volume threshold test should be applied to members of an affiliated group” and, in particular, “how the Commission should interpret common control for these purposes, and whether this interpretation should be limited to wholly-owned affiliates” requires further review because both are significant areas with far-reaching regulatory implications. AMG recommends that the Commission limit the definition of “common control” to affiliates who share trading personnel and algorithmic trading systems. Defining “common control” in this manner would limit the Proposed Reg AT framework to

25 17 C.F.R. § 150.4(b)(2), 81 Fed. Reg. at 91,490. The regulation reads:

Any person with an ownership or equity interest in an owned entity of 10 percent or greater (other than an interest in a pooled account subject to paragraph (b)(1) of this section), need not aggregate the accounts or positions of the owned entity with any other accounts or positions such person is required to aggregate, provided that:

(i) Such person, including any entity that such person must aggregate, and the owned entity (to the extent that such person is aware or should be aware of the activities and practices of the aggregated entity or the owned entity):

(A) Do not have knowledge of the trading decisions of the other;

(B) Trade pursuant to separately developed and independent trading systems;

(C) Have and enforce written procedures to preclude each from having knowledge of, gaining access to, or receiving data about, trades of the other. Such procedures must include security arrangements, including separate physical locations, which would maintain the independence of their activities;

(D) Do not share employees that control the trading decisions of either; and

(E) Do not have risk management systems that permit the sharing of its trades or its trading strategy with employees that control the trading decisions of the other; and

(ii) Such person complies with the requirements of paragraph (c) of this section.

market participants with multiple trading centers acting under common control with a greater potential to adversely impact the market, in keeping with the Commission’s stated purpose of Proposed Reg AT. Otherwise, a firm with any ownership interest in another firm would be required to aggregate its trading activities with the other firm, irrespective of the relationship between the firms or their trading desks. Aggregation based on an ownership interest will capture a wider array of firms, including firms that have no ability to adversely impact the market simply by virtue of one firm’s minority ownership interest in the other firm.

2. **The Volume Threshold Test May Cause Market Participants to Alternate Between Being Designated as AT Persons and Not Being So Designated**

In addition to the operational burden in calculating average daily volume across all electronic trading facilities of futures exchanges and across all products, a market participant faces significant compliance costs in the event that the market participant does become an AT Person for one measurement period but not future periods. This could occur, for example, if a market participant exceeds the volume threshold test during one six-month period but does not exceed the test during subsequent periods. Under the Supplemental Proposal the market participant would continue to be an AT Person during the next two six-month periods even if it does not exceed the volume threshold test during this time. During this one-year period, the market participant, who would not otherwise qualify as an AT Person, would still be subject to compliance obligations under Proposed Reg AT. The market participant must wait for the one-year period to conclude before it is relieved of compliance requirements. The Commission has determined to subject such a market participant to continued costs and compliance challenges, which is the antithesis of Project KISS and its goals.

Due to the volume threshold framework, market participants run the risk of “flip flopping” between being AT Persons and not being AT Persons. During the one-year period following the time a market participant initially exceeds the volume threshold, the market participant would still be considered an AT Person and would be required to comply with the Proposed Reg AT regime. As a result, the market participant would be required to expend the necessary resources to comply with Proposed Reg AT, even if only for a one-year period during which compliance is required. Eliminating the volume threshold test will prevent the potential for a market participant to alternate between being designated as an AT Person and not being designated as an AT Person. The volume threshold test is another element of Proposed Reg AT that demonstrates how the proposal is inconsistent with Project KISS and its goals of making regulation simpler, less burdensome and less costly.

C. **Certification of Third-Party Algorithmic Trading Systems Should be Straightforward and Provide a Safe Harbor from Liability**

The Supplemental Proposal modifies the Commission’s 2015 Proposal by permitting an AT Person who uses a third-party system to obtain from the third party certifications of compliance with
specific provisions of Proposed Reg AT with which the AT Person is not in a position to comply (including Proposed Regulations 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). The AT Person must obtain a new certification each time the third party makes a material change to the trading system or component. Such obligation is not a simple task. The third-party certification, which was intended to relieve compliance challenges with Proposed Reg AT for certain market participants, exposes these market participants to a wide array of new compliance issues. For example, market participants who use third-party provided algorithmic trading systems and are therefore unable to directly comply with certain Proposed Reg AT requirements, will be required to obtain a certification explaining how the system complies with each pertinent regulatory obligation from, and perform due diligence on, the third party providers, with no safe harbor from regulatory liability arising out of such reliance.

A certification should not be needed when such third party is itself an AT Person subject to Proposed Reg AT. Where a certification is required, the Commission should adopt less prescriptive certification rules. Before adopting the certification requirement, the Commission should consider its infeasibility and the potential it has to “harm innovation and intellectual property rights.”

As we noted above in Section II, the third-party certification and related due diligence requirements would not be necessary under a final rule that eliminates the AT Person category and requires pre-trade risk controls only at the Executing Broker (or market participant, only where the market participant has DEA) and DCM levels. However, if the Commission retains the AT Person category, SIFMA AMG encourages the Commission to amend the third-party certification provision.

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28 Proposed Regulation 1.85(c), Supplemental Proposal, 81 Fed. Reg. at 85,393. According to the Commission, the Supplemental Proposal “provides flexibility and does not set forth the means by which due diligence must be conducted”, but expects that due diligence may take a variety of forms, and may include 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.


1. Certification Should be Available for Any Third-Party System Irrespective of Establishing an Inability to Otherwise Comply

The Commission should clarify that any AT Person that uses a third-party algorithmic trading system may rely on the third-party certification provision. Proposed Regulation 1.85 allows AT Persons who, due solely to their use of third-party system or components, are unable to comply with a particular development or testing requirement, to obtain a compliance certification from the third party. The language “due solely to their use of third-party systems” makes it unclear whether an AT Person must meet a standard whereby the AT Person must have no workaround, no ability to develop its own algorithmic trading system in-house, or no way to modify its business practices before the AT Person may rely on Proposed Regulation 1.85. The “due solely” language should not establish a condition precedent whereby an AT Person must “prove” it has no other alternative to compliance with Proposed Reg AT. Instead, the certification provision should be more like the proposed delegation provision under proposed regulations 180.2(d)(2) and (g)(3) and clearly permit an AT Person to rely on an alternative compliance method where appropriate.

2. Certification Should Be Required Only When a Third Party Is Not an AT Person or Executing Broker

The purpose of the certification requirement makes sense when the third party provider is not an AT Person. However, where the third party is an AT Person, or Executing Broker, a certification should not be required because the third party would already be subject to the entirety of the Proposed Reg AT regime. An AT Person should be permitted to rely on a third party that is itself an AT Person, or Executing Broker, similar to the way in which a financial institution is permitted to rely on another financial institution’s performance of certain customer identification obligations pursuant to federal regulations. By eliminating the requirement to obtain a certification from a third party that is itself

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30 Supplemental Proposal at 85,351.

31 See, e.g., 31 C.F.R. § 1010.230(j). The Financial Crimes Enforcement Network of the Treasury Department permits a financial institution to rely on another financial institution’s performance of customer identification program requirements. The regulation provides that “[a] covered financial institution may rely on the performance by another financial institution (including an affiliate) of the requirements of this section with respect to any legal entity customer of the covered financial institution that is opening, or has opened, an account or has established a similar business relationship with the other financial institution to provide or engage in services, dealings, or other financial transactions, provided that:

(1) Such reliance is reasonable under the circumstances;

(2) The other financial institution is subject to a rule implementing 31 U.S.C. 5318(h) and is regulated by a Federal functional regulator; and
an AT Person, or Executing Broker, the Commission would simplify the regulation and reduce significant unnecessary burdens and costs associated with obtaining certifications and re-certifications and performing related due diligence.

The Commission also proposed a detailed and prescriptive certification requirement that is unnecessary. Certification need not be as detailed as the Commission has proposed because it is the certification itself that imposes responsibility on the third party, not an explanation of how the component or system complies with each regulatory obligation. It should be sufficient for the certification to simply state that the third party has implemented policies and procedures reasonably designed to comply with Proposed Reg AT.

Any new certification should be required on a periodic basis\textsuperscript{32} rather than upon the occurrence of every material change to the trading system or component, as proposed, to more effectively facilitate and simplify compliance. Requiring a detailed description of how the third party achieves compliance with Proposed Reg AT or frequent recertifications would unnecessarily add costs to compliance without reducing potential disruptions to the market or providing other material regulatory benefits.

3. The Commission Should Provide a Safe Harbor From Liability From Certifications

SIFMA AMG respectfully requests that the Commission incorporate a safe harbor from liability where an AT Person uses another AT Person’s trading system or performs due diligence under Proposed Regulation 1.85(c). The Commission has proposed that an AT Person relying on a certification of compliance from a third-party service provider must perform due diligence to “reasonably determine the accuracy and sufficiency of a certification”.\textsuperscript{33} The Commission explains that an AT Person should make its own determination regarding an appropriate due diligence process,

\begin{itemize}
\item[(3)] The other financial institution enters into a contract requiring it to certify annually to the covered financial institution that it has implemented its anti-money laundering program, and that it will perform (or its agent will perform) the specified requirements of the covered financial institution’s procedures to comply with the requirements of this section.”
\end{itemize}

\textit{Id.}

\textsuperscript{32} Under federal anti-money laundering regulations, a financial institution may rely on another financial institution as long as the other financial institution provides a written certification of compliance on an annual basis.

\textsuperscript{33} Proposed Regulation 1.85(c), Supplemental Proposal, 81 Fed. Reg. at 85,393.
but, notes that the AT Person should “perform such diligence as is necessary for the AT Person to have comfort that the underlying substantive regulatory requirements are being met.”

In response to the Commission’s request for comment, SIFMA AMG urges the Commission to provide a safe harbor from regulatory liability for an AT Person relying on third party certification if the AT Person, in performing its due diligence, compares the third party’s policy documentation against best practices. The Commission should not include in the due diligence requirement that the AT Person perform technical design reviews or analyses of testing protocols and test results because only those AT Persons who employ technical personnel could comply without retaining another third party to consult on the topic, unnecessarily increasing the costs and burdens associated with complying with Proposed Reg AT.

D. Market Participants Should Be Able to Rely on Executing Brokers’ Risk Controls

The delegation provisions under Proposed Regulation 1.80(d) (applicable to Algorithmic Trading) and 1.80(g)(2) (applicable to Electronic Trading Order Messages) permit an AT Person to


35 Id. at 85,352 (Question 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?”).

36 Proposed Regulation 1.80(a) requires an AT Person to have specified minimum pre-trade risk controls; the proposed regulation reads:

(1) The pre-trade risk controls shall include, at a minimum, the following: (i) Maximum AT 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 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.

(3) Natural person monitors at the AT Person shall be promptly alerted when pre-trade risk control parameters established pursuant to this section are breached.

37 The Commission has proposed a definition of “Electronic Trading Order Message” that means “each new order submitted by Electronic Trading and each modification or cancellation submitted by Electronic Trading with respect to such an order”. Proposed Regulation 1.3(bbbbb), Supplemental Proposal, 81 Fed. Reg. at 85,391. The term “Electronic Trading” means “trading in any commodity
delegate compliance to its executing FCM, but only if it is technologically feasible for the FCM to comply with the regulation “with a level of effectiveness reasonably designed to prevent and reduce the potential risk of an Algorithmic Trading Event.” The FCM must notify the AT Person in writing of its acceptance of the delegation and state that it will comply with 1.80(a) on behalf of the AT Person. In addition, an AT Person must review the FCM’s compliance with the relevant requirements.

The delegation requirement is not necessary under a true two-level approach to risk control, i.e., focusing on Executing Brokers (or market participants utilizing DEA) and DCMs. As noted above, a market participant should not be considered to be engaged in algorithmic trading within the meaning of Proposed Reg AT or treated as an AT Person when the market participant simply places an order, by electronic means or otherwise, with an Executing Broker, whose algorithmic trading system subsequently transmits the customer’s order to a DCM. In this scenario, the Executing Broker, not the customer, controls and has access to the algorithm’s source code and may adjust its settings or make material changes to the source code. The market participant should be able to rely on the risk controls of the Executing Broker and a delegation agreement should not be required in such instances.

Moreover, Proposed Regulation 1.82 requires an executing FCM to implement risk controls (including pre-trade risk controls and order cancellation systems) for all “Electronic Trading Order Messages” that do not originate with an AT Person. In a two-level risk control environment, an Executing Broker would implement risk controls for all electronic orders, regardless of where they originate. As proposed, the regulation introduces complicated compliance obstacles because an Executing Broker would be required to determine whether to subject an electronic order to risk controls by virtue of its customer’s regulatory classification. By modifying Proposed Regulation 1.82 to apply to all electronic orders, an AT Person without DEA would not need to implement its own risk controls or delegate to an executing FCM compliance with certain provisions of Proposed Reg...
AT. Such a simple modification to Proposed Regulation 1.82 would eliminate unnecessary compliance burdens, associated costs, and redundant regulation.

If the Commission adopts a three-level risk control environment, market participants should be permitted to unconditionally rely on Executing Brokers’ risk controls, and Executing Brokers should be responsible for compliance with Proposed Reg AT in the first instance to avoid imposing duplicative obligations on other market participants that utilize their execution services. If the Commission retains the AT Person category and permits an AT Person to delegate certain obligations to an executing FCM, the Commission should not require an AT Person to police its Executing Broker for compliance with regulatory obligations related to Reg AT. SIFMA AMG recommends that Executing Brokers should be responsible for pre-trade risk controls in the first instance. However, if the Commission retains an AT Person category, SIFMA AMG supports a delegation provision with certain modifications, described below.

First, an AT Person should be permitted to delegate to its Executing Broker, including executing FCMs, IBs and FBs, compliance obligations under Proposed Reg AT. The Commission did not explain why the scope of the delegation provision applies solely to executing FCMs. As drafted, the provision is restrictive and should be expanded to include FCMs, IBs and FBs to reflect existing market practices.

Second, an AT Person who delegates to an Executing Broker pursuant to the proposed regulation should not be required to review the Executing Broker’s compliance with Proposed Reg AT. The Commission mandates that an AT Person review an Executing Broker’s compliance with applicable Proposed Reg AT requirements, but presumably the Executing Broker would be deemed an AT Person subject to Proposed Reg AT even without accepting a delegation on behalf of another AT Person. As an AT Person, an Executing Broker would be required to comply with Proposed Reg AT. The Commission or a DCM is in the better position to monitor a registrant’s or exchange member’s compliance with Proposed Reg AT, rather than an AT Person that has delegated its obligations to an Executing Broker. Such an AT Person likely will not be in a position to thoroughly review its Executing Broker’s compliance with applicable regulatory requirements. The Commission should eliminate the requirement that an AT Person review an Executing Broker’s compliance where delegation occurs and, in doing so, simplify the delegation requirement and reduce the costs associated with delegation.

40 The proposed definition of AT Person includes a person registered or required to be registered as an FCM that “[e]ngages in Algorithmic Trading on or subject to the rules of a designated contract market; and [w]ith 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.”
Third, the Commission should confirm that an AT Person is not liable for an Executing Broker’s regulatory failures. Any question of liability would be resolved by applying pre-trade risk controls only at the Executing Broker and DCM levels and eliminating the need of an AT Person to delegate responsibilities for pre-trade risk controls to an Executing Broker. In the alternative, SIFMA AMG requests that the Commission confirm that an AT Person relying on the delegation provision will not be liable for the Executing Broker’s failure to comply with relevant regulations.41

E. The Source Code Repository Requirement Should Be Eliminated

In SIFMA AMG’s previous comment letter, AMG recommended that the source code repository requirement be eliminated because of the possibility that trade secrets would be exposed.42 The proposed repository requirement potentially would expose source code to a greater number of an AT Person’s staff than would otherwise be the case and to unsupervised disclosure to the Commission’s staff and, potentially, to malicious outside sources who attempt to hack source code once it has been provided to the Commission. In the Supplemental Proposal the Commission has modified the source code repository requirement to mandate that an AT Person (1) retain records of algorithmic trading source code, records generated by the AT Person in the ordinary course of business that track material changes to such source code (including a record of when and by whom such changes were made, to the extent such records are generated in the ordinary course of business), and logs or log files that record the activity of the AT Person’s algorithmic trading system, including a chronological record of such system’s actions, to the extent such records are generated in the ordinary course of business; and (2) produce records required to be retained under Proposed Reg AT pursuant to a special call of the Commission or subpoena. The Commission states that it expects log files to contain a similar level of detail as exchange audit trail records and, in some cases, a greater level of detail.43

SIFMA AMG acknowledges the increased procedural safeguards regarding Commission staff access to source code that are provided in the Supplemental Proposal. However, we continue to be concerned that the provision of source code to the Commission, even by a secure file transfer or other secure method, presents a security risk that the source code could be stolen and could have a “chilling

41 SIFMA AMG makes this request that the Commission confirm that an AT Person will not be liable for an Executing Broker’s failure to comply with relevant regulations relating to Reg AT, similar to Financial Industry Regulatory Authority guidance stating that “a broker/dealer will not be held responsible for the failure of the other financial institution to fulfill adequately the broker/dealer’s customer identification program responsibilities”, as long as the broker/dealer complies with the regulatory requirements. Financial Industry Regulatory Authority Anti Money Laundering FAQ, http://www.finra.org/industry/faq-anti-money-laundering-faq (emphasis added).

42 SIFMA AMG Comment Letter, 16-17.

effect on automated trading.” In the Supplemental Proposal, the Commission or its staff can only gain access to an AT Person’s source code by subpoena or by special call of the Commission. However, the new revised provision continues to present a security risk and does not set forth the safeguards the Commission will deploy when Commission staff takes possession of an AT Person’s source code. AMG concurs with Acting Chairman Giancarlo, who has advocated that the Commission “could provide that it will only review source code at a property owner’s premises or on computers not connected to the Internet….and state that it will return all source code to the property owner once its review is finished.”

Our concerns are not unfounded. It has been reported that a supervisory staff member of the U.S. Securities and Exchange Commission (“SEC”) is believed to have “unnecessarily requested proprietary trading code from registrants and downloaded this proprietary trading code onto a personal computer”. Although the author of this report, the SEC’s Office of Inspector General, could not find evidence that the staff member came into possession of proprietary trading code, the very allegation is indeed worrisome. The risk of a cybersecurity attack on a Commission server containing source code is an additional concern.

To eliminate these concerns over the confidentiality of source code, the Commission should only require log files to be retained. Log files provide the Commission with a sufficient level of detail for it to achieve its regulatory objectives. If the Commission retains the source code requirement, it

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44 Acting Chairman Giancarlo has stated that:

The potential of losing a trading firm’s most sensitive intellectual property in a hack of a government agency will have a chilling effect on automated trading and FinTech innovation in the United States. Such a requirement is yet another element of seeming U.S. regulatory inhospitality to financial technology and innovation.

J. Christopher Giancarlo, Commissioner, Commodity Futures Trading Commission, Address to the American Enterprise Institute, “21st Century Markets Need 21st Century Regulation” (Sept. 21, 2016) (internal citations omitted).

45 Statement of Dissent by Commissioner J. Christopher Giancarlo Regarding Supplemental Notice of Proposed Rulemaking on Regulation Automated Trading (Nov. 4, 2016).


47 “Cyber risk is undoubtedly the number one threat to 21st century financial markets. It is also a threat against which the federal government has been a poor guardian of private confidential information.” Statement of Dissent by Commissioner J. Christopher Giancarlo Regarding Supplemental Notice of Proposed Rulemaking on Regulation Automated Trading (Nov. 4, 2016) (internal citations omitted).
should provide greater assurances as to the security measures and restrictions on dissemination it would implement when it has in its possession highly confidential source code.

IV. Additional Comments on Other Important Changes to AT Person Requirements

SIFMA AMG previously recommended various modifications to Proposed Reg AT. The Commission incorporated in the Supplemental Proposal SIFMA AMG’s recommendations that the (1) requirement in Proposed Regulation 1.81(a) (requiring an AT Person to test Algorithmic Trading code and related systems and any changes to such code or systems on each DCM on which Algorithmic Trading will occur) be modified to acknowledge the requirement’s impracticality for AT Persons without DEA, and (2) Commission eliminate the annual report requirement. SIFMA AMG respectfully requests the Commission to consider our other previous recommendations on Proposed Reg AT.

A. Permit the Person Monitoring an Algorithm to Be Simultaneously Engaged in Trading and Eliminate Requirement to Have Plan of Internal Coordination

The Commission should permit the person monitoring an algorithm to be simultaneously engaged in trading by clarifying its expectations that are incorporated in the 2015 proposal’s preamble. The monitoring requirement in Proposed Regulation 1.81(b) should be modified to (1) eliminate the requirement to track which monitoring staff is responsible for an AT system during trading hours; and (2) clarify that staff persons who are simultaneously, actively engaged in trading may perform continuous real-time monitoring. The Commission should permit such monitoring to be performed by a system to the extent that the system generates automated alerts to notify staff of certain events, which events should not be prescribed by the Commission. Instead, under a more flexible approach, an AT Person should be permitted to design the alerts as needed.

The Commission should also eliminate in its entirety 1.81(c)(2)(ii), which would require an AT Person to implement written policies and procedures, with a plan of internal coordination and communication between compliance staff of the AT Person and staff of the AT Person responsible for Algorithmic Trading regarding Algorithmic Trading design, changes, testing, and controls. This requirement is overly prescriptive. An AT Person is in the best position to determine how, and with whom, communication related to Algorithmic Trading should occur.

48 SIFMA AMG Comment Letter, 14, 16.
49 Regulation Automated Trading, 80 Fed. Reg. at 78,859.
B. Eliminate Algorithmic Trading Event Notification Requirement

SIFMA AMG previously recommended that a DCM’s rules should govern when an AT Person reports an Algorithmic Trading Event to the DCM.\textsuperscript{50} As currently drafted, an Algorithmic Trading Event notification would be needed upon an Algorithmic Trading Compliance Issue (including violations of internal policies or procedures) and an Algorithmic Trading Disruption. An Algorithm Trading Disruption includes a disruption of an AT Person’s own ability to trade. As a result of the broad scope of these defined terms, unnecessary reporting, or “noise”, would be generated. Focus on resolving the issue would be diverted to compliance staff and result in unwarranted reporting, requiring reporting even where the issue does not impact the market or other market participants. Smarter regulation necessarily means less “noise” and focusing instead on potentially meaningful disruptions. Accordingly, SIFMA AMG also recommended that the Commission revise the defined terms to eliminate references (or add a materiality standard) to internal policies or procedures or disruptions only impacting the AT Person’s ability to trade.

SIFMA AMG reiterates its request that the Commission eliminate the requirement that an AT Person notify staff of the applicable DCM when an Algorithmic Trading Event occurs, thereby reducing AT Person notification challenges.\textsuperscript{51} Instead, each DCM should be responsible for providing procedures for incident reporting that are tailored to its markets and existing risk controls. If, however, the Commission retains this requirement, SIFMA AMG respectfully requests that the Commission limit the scope of the definition of an “Algorithmic Trading Event” by revising the term “Algorithmic Trading Compliance Issue”\textsuperscript{52} to read:

This term means an event at an AT Person that has caused any Algorithmic Trading of such entity to operate in a manner that does not materially comply with the Commodity Exchange Act 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.

In revising this term, an Algorithmic Trading Event would no longer include an AT Person’s own internal rules, the rules of the National Futures Association, or policies or of its Executing Brokers

\textsuperscript{50} SIFMA AMG Comment Letter, 17-18.
\textsuperscript{51} See, e.g., Proposed Regulation 1.81(d)(1)(i).
\textsuperscript{52} See, e.g., Supplemental Proposal, 81 Fed. Reg. at 85,365.
member or any DCM on which it trades, thereby limiting the scope of notifications to strictly compliance issues under the Commodity Exchange Act and CFTC regulations. The proposed revision would not prohibit a DCM from incorporating a notification requirement about a violation of its own rules, but would instead permit a DCM to select the appropriate rules about which they wish to receive notifications.

The Commission should also revise the term “Algorithmic Trading Disruption” to omit the reference to a disruption of an AT Person’s own ability to trade, and limit the scope of the term to disruptions of the market and others’ ability to trade on it. The revised term should read:

This term 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.

C. Enforcement Actions Should Not be Premised Upon System or Procedural Failures Alone

Under Proposed Regulation 1.81(c), an AT Person must “implement written policies and procedures reasonably designed to ensure that each of its Algorithmic Trading systems operates in a manner that complies with the Commodity Exchange Act and the rules and regulations thereunder.”

As SIFMA AMG requested in its previous comment letter, we request the Commission to make clear that Proposed Regulation 1.81(c) will not itself become grounds for an enforcement action, other than through supervisory responsibilities pursuant to Regulation 166.3, if applicable. The Commission should appreciate that AT Persons will experience systems problems on occasion despite their best efforts to mitigate the risk that such issues will occur, and should not permit enforcement actions solely on the basis of experiencing any such issue to the extent it does not have a materially adverse effect on the market. We request that the Commission clarify this point.

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For the reasons stated above, SIFMA AMG recommends that the Commission not adopt Proposed Regulation AT as presently formulated. If the Commission is compelled to proceed with a

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53 Proposal at 78,938.
54 17 C.F.R. § 166.3.
rulemaking, we urge the Commission to more carefully tailor the rule to reduce its burdens, costs and redundancies by incorporating the following recommendations:

- Focus the regulation on Black Box algorithmic trading that presents potential risks to the market and not on all electronic trading.

- Eliminate the AT Person category and adopt a true two-level approach to pre-trade risk controls, and mandate that (1) Executing Brokers (including FCMs, IBs and FBs) or only market participants that trade algorithmically with DEA, and (2) DCMs, implement such controls instead of all market participants that utilize automated trading algorithms.

- If, however, the Commission retains an approach where AT Persons are responsible for compliance with Proposed Reg AT, the Commission should:
  - Not include registration status as a CPO or CTA as a criteria for inclusion within the definition of AT Person;
  - Eliminate the volume threshold test or, if it is retained, only include Black Box volume, and delete the affiliate aggregation requirement;
  - Narrow and clarify the new definitions to prevent ambiguity related to the application of Proposed Reg AT, and provide practical examples of when a market participant would be considered an AT Person;
  - Not require an AT Person to obtain certification as to algorithmic trading systems provided by a third party that is itself an AT Person;
  - Provide a safe harbor from regulatory liability to AT Persons who obtain a certification from another AT Person;
  - Clarify that, under a delegation arrangement with its Executing Broker, an AT Person is not required to review its Executing Broker’s compliance with Proposed Reg AT and an Executing Broker must provide transparent and nondiscriminatory reasons for rejecting any delegation request;
  - Eliminate the Supplemental Proposal’s source code retention requirement and instead simply require AT Persons to retain log files;
  - Amend the natural person monitoring requirements to reflect a less prescriptive approach and the operational reality of responding to a systems issue. A trader is the person to most effectively monitor his or her positions and determine whether a systems issue has occurred;
  - Eliminate the requirement that an AT Person report to DCMs upon each Algorithmic Trading Event. At a minimum, the Commission should remove references to an AT
Person’s internal policies or disruptions in the definitions of “Algorithmic Trading Compliance Issue” and “Algorithmic Trading Disruption” to prevent unduly burdening DCMs and AT Persons with notifications of internal events that do not impact the market; and

- Clarify that experiencing an Algorithmic Trading Event would not necessarily cause the Commission to take enforcement action against an AT Person.

We appreciate the opportunity to provide the Commission with our comments and recommendations concerning the Proposal and are available to discuss our comments or any of the issues raised by the Proposal with the Commission or its staff. If the staff has any questions, please do not hesitate to contact Tim Cameron at 202-962-7447 or tcameron@sifma.org, Laura Martin at 212-313-1176 or lmartin@sifma.org, or Michael Philipp at 312-324-1905 or michael.philipp@morganlewis.com.

Respectfully submitted,

Timothy W. Cameron, Esq.  
Asset Management Group – Head

Laura Martin, Esq.  
Asset Management Group – Managing Director and Associate General Counsel

cc: The Honorable J. Christopher Giancarlo, Acting Chairman  
The Honorable Sharon Bowen, Commissioner  
Mr. Amir Zaidi, Director, Division of Market Oversight
March 16, 2016

Mr. Christopher Kirkpatrick
Secretary
U.S. Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

Re: Comment Letter on Proposed Regulation Automated Trading (RIN 3038-AD52)

Dear Mr. Kirkpatrick:

The Asset Management Group of the Securities Industry and Financial Markets Association ("SIFMA AMG" or "AMG")1 welcomes the opportunity to provide the U.S. Commodity Futures Trading Commission (the "Commission") with comments regarding the Commission’s proposed Regulation Automated Trading (the "Proposal" or "Proposed Reg AT").2

Many AMG members fall within the Proposal’s scope because they are registered commodity pool operators ("CPOs") or commodity trading advisors ("CTAs") that use automated trading to reduce costs and improve trade execution, ultimately benefiting their clients. Because asset managers generally do not access designated contract markets ("DCMs") through direct electronic access ("DEA"), their orders pass through a futures commission merchant’s ("FCM") and DCM’s risk controls, making the controls proposed by virtue of CPO and CTA registration redundant.

While AMG supports the Commission’s aim of protecting DCMs from disruptions caused by algorithmic trading, we believe that any potential regulatory framework that aims to address the risks associated with algorithmic trading should be targeted and cost-effective. In particular, AMG believes that the futures industry has largely addressed the risks posed by automated trading through industry initiatives, including by adoption of recommendations made by the Futures Industry Association’s ("FIA") Guide to the Development and Operation of Automated Trading Systems ("FIA Guide")3 as well as other significant risk controls imposed at DCMs. AMG’s members

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1 SIFMA AMG’s members represent U.S. asset management firms whose combined global assets
3 Proposal at 78,835. For example, in March 2015, the FIA published recommendations regarding appropriate risk controls at the trader, FCM and DCM levels. Futures Industry Association, Guide to

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depend upon the stability of DCMs to execute trading strategies on behalf of their client, and current industry approaches to risk mitigation have helped preserve market integrity.

AMG believes that the FIA Guide’s recommendations, which are currently implemented by many DCMs, FCMs and their clients, effectively satisfy the Proposal’s policy goals through the application of kill switch functionality at algorithmic traders, FCMs and DCMs, and price banding controls and cancel-on-disconnect services offered by DCMs. AMG supports the incorporation and codification of the FIA Guide’s recommendations in the Proposal but believes that the Commission should only supplement the FIA Guide’s recommendations where necessary to fill gaps not covered by current practices and only to the extent that these gaps create material risk to the market. As discussed below, the Proposal goes much further and, AMG respectfully submits, goes too far.

While AMG believes that formalizing and, where necessary, enhancing these controls will only help to solidify progress made to date, AMG is concerned that Proposed Reg AT is overly complex and unnecessarily increases burdens on market participants and DCMs. As such, as described in more detail below, AMG recommends that the Commission:

- **Adopt unambiguous definitions focused on systems that pose greater risk to market integrity and users of such systems.** AMG requests that the Commission amend the definitions of “AT Person” and “Algorithmic Trading” to sharpen the Proposal’s focus on the risk that an algorithmic trader or algorithmic trading system potentially presents to U.S. exchange-traded derivatives markets through limiting the reach of the Proposal to traders who access a DCM through DEA, and to trading systems employed by such traders that generate the essential terms of an order. The Proposal should make clear that simply using an automated trading system that does not generate and submit orders to a DCM without human intervention in and of itself will not cause a trader to be captured by the AT Person definition. Further, the Proposal should make clear that an asset manager or other customer’s electronic submission of an order to an FCM with instructions for the FCM to use its automated trading system will not bring the customer in scope as an AT Person.

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4 See FIA Guide.
5 FIA Guide at 10, 14-15.
6 Proposed Regulation 1.3(xxxx), Proposal at 78,937.
7 Proposed Regulation 1.3(zzzz), Proposal at 78,937.
• Tailor proposed Regulation 1.81 to the risks that the use of certain Algorithmic Trading systems could pose to the market. Certain development and testing requirements related to source code, for example, should apply only to AT Persons that develop their own algorithmic trading systems. The Proposal’s source code repository requirement in proposed Regulation 1.81(a)(1)(vi) and the annual report requirement in proposed Regulation 1.83 should be eliminated.

• Amend the natural person monitoring requirements. Proposed Regulation 1.81(b) should reflect the complexity of responding to a systems issue and the reality that a trader is best situated to effectively monitor his or her positions and determine whether an issue has occurred.

• Remove references to an AT Person’s internal policies or disruptions in the definitions of “Algorithmic Trading Compliance Issue” and “Algorithmic Trading Disruption”. These definitions should be revised to remove references to an AT Person’s internal policies or disruption of its Algorithmic Trading to prevent unduly burdening DCMs and AT Persons with notifications of internal events that do not impact the market.

• Permit DCMs to continue offering flexible solutions related to self-trade prevention tools.

• Clarify that experiencing an Algorithmic Trading Event would not necessarily cause the Commission to take enforcement action against an AT Person.

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8 Proposal at 78,938.
9 Proposal at 78,938.
10 Id. at 78,939.
11 Id. at 78,938.
12 Proposed Regulation 1.3(tttt), Proposal at 78,937.
13 Proposed Regulation 1.3(uuuu), Proposal at 78,937.
14 Proposed Regulation 1.3(vvvv), Proposal at 78,937.
I. Controls Currently in Place at DCMs, FCMs and Asset Managers Address Risks Posed by Asset Managers’ Uses of Automated Trading Systems

A. Asset Managers Use of Automated Trading Systems

Asset managers – registered CPOs, CTAs and investment managers acting in an unregistered capacity – are responsible for making investment decisions designed to achieve their clients’ objectives. In fulfilling this role, many AMG members use algorithms to (i) generate investment strategies and (ii) execute trades on a DCM, typically through an executing FCM’s access to DCMs. Once an algorithm generates an investment recommendation, a natural person typically exercises discretion in determining whether to execute the trade, and in so doing, may determine to execute the trade manually or with the aid of an automated order execution algorithm. Algorithms used by most asset managers either generate investment recommendations (“investment decision algorithm” or “model”) or execute orders (“execution management system”), but one algorithm will not serve both functions.

An asset manager’s portfolio management personnel engage in ongoing investment management activities for clients, establishing and continually adjusting holdings and exposures on behalf of client accounts. Some use investment decision algorithms for this purpose. These investment decision algorithms are either proprietary or licensed from a third party. Upon an investment decision algorithm generating a suggested strategy, or identifying a trading signal, portfolio management personnel typically determine whether to proceed with the recommendation. In many instances, no trade can occur without a natural person deciding that he or she agrees with the essential terms of the proposed trade (which commodity, buy/sell, and quantity). The portfolio manager, in her/his discretion, may determine to change certain of the essential terms suggested by the investment decision algorithm. The investment decision algorithm cannot itself communicate an order to an FCM or DCM. Rather, it must move to a separate process for execution of the trade.\(^\text{15}\)

Indeed, many asset managers use separate personnel for trade execution, such that once the portfolio management personnel decides to move forward with an order, the essential terms of a trade are communicated to a trader (a natural person) through an order management system or otherwise.\(^\text{16}\) The trader will then determine how to best seek execution of the trade. Many asset

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\(^\text{15}\) Because these investment algorithms cannot communicate an order to an FCM, it is our understanding that they would not be subject to the definition of Algorithmic Trading under the Proposal.

\(^\text{16}\) To communicate an order to a trader, a portfolio manager may use an order management system. An order management system communicates orders that are generated by portfolio management personnel. For example, a portfolio manager will enter order information into the order management system and a trader will view the information and place orders based on the portfolio manager’s instructions.
managers’ traders utilize automated trading systems to execute trades. Some investment decision algorithms have features that allow portfolio management personnel to send a trade generated by such an algorithm into an execution management system. Similar to a “drag and drop”, release order or approval function, auto-population of the order information obviates the need for a trader to key in the order, reducing (if not eliminating) the risk of keying errors. In all circumstances, however, the portfolio manager exercises discretion with respect to the transaction. It is this human intervention in the trade flow process that mitigates any risk posed by the investment algorithm and breaks the chain of automated decisions. It is possible, but rare, for an asset manager to use an automated execution management system that takes the trade directly from investment decision algorithm to the FCM for execution without human intervention, sometimes called “black box”.

Investment decision algorithms and execution management systems are very different from “black box” trading and do not pose the same types of risk. By the term “Black Box,” we are referring to a type of automated trading technology used to both generate and submit orders to a DCM without pre-trade human intervention; a Black Box generates the essential terms of the order by specifying the specific commodity interest contract, whether to buy or sell, the venue on which to place the order, as well as the order size and, in varying circumstances, the execution method. Operational or market integrity risk may arise with the use of a Black Box because it generates all essential aspects of an order and transmits the order to an FCM or DCM without human intervention in the order generation or submission process. A Black Box is distinguished from a system with more limited functionality (such as price, time or quantity partitioning discretion) that is not capable of generating an order. The risks posed by a Black Box are different from those of commonly used automated trading systems that have limited price or time discretion, or the ability to partition a large “parent” order into smaller “child” orders, but lack the ability to generate an order or change any of the essential parameters of the order (i.e., the specific contract, buy or sell, and quantity and limit price). These parameters must still be determined by a natural person.

Generally, an asset manager’s trader will transmit DCM orders to an FCM in one of four ways:

1) The asset manager’s trader may call a natural person broker at an FCM to verbally communicate an order. The trader may direct the broker to use a specific algorithm that the FCM provides to customers.

2) The asset manager’s trader may electronically submit an order to its FCM using a web-based, locally-installed, or other type of front-end Automated Order-Routing System (“AORS”) provided by the FCM. An AORS typically has its own risk controls built into

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We have identified the more common types of automated trading systems that asset managers use in Appendix A, attached hereto, to provide the Commission with more detailed context of the types of automated trading systems typically used by asset managers and the goals that they are designed to achieve.
the system. To enter an order, the trader manually keys order details into the AORS or may use a touch screen or mouse click to trigger a pre-programmed macro used to transmit an order (such as a release button, “drag and drop” or other approval function). The trader may direct the FCM, using the front-end AORS, to execute the order using an execution management system provided by the FCM. Neither the AORS nor the execution management system can alter the order parameters that the trader has entered.

3) The asset manager’s trader may use its own execution management system that resides on the asset manager’s server and electronically connects to its FCM’s order management platform to transmit an order to the FCM. The execution management system may be proprietary or licensed by the asset manager from a third party. The execution management system typically has its own risk controls built into the system.

4) The asset manager’s trader may transmit an order through an execution management system (provided by a third party, for example, Bloomberg) to its FCM with specific instructions that the FCM route the order to a DCM using the FCM’s automated trading systems. The FCM and its algorithm do not possess the ability to modify the essential parameters that the trader has entered.

AMG’s members, particularly CPOs and CTAs acting in a registered capacity, typically do not have DEA. While many asset managers can electronically communicate orders to an FCM, as described above, the orders pass through the FCM’s system, at which time the FCM’s risk controls are applied. For the asset managers that use automated trading systems for execution, it is common for the automated trading system to reside at the FCM.

B. Risk Controls Over Asset Managers’ Use of Automated Trading Systems

Absent DEA, an asset manager’s orders, whether they are generated using an investment decision algorithm or transmitted to an FCM or DCM using an automated trading system, will always pass through the risk controls of the FCM and/or the relevant DCM. Where appropriate, an FCM requires testing of an asset manager’s connectivity and systems to check that orders flowing to the DCM via the FCM’s systems will not pose uncontrolled risks. Additionally, asset managers commonly have their own practices to control risks unique to their firms. Existing FCM and DCM risk controls are reasonably tailored to address any risks associates with the orders that are submitted by asset managers, even where such orders may use an execution algorithm.

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18 An execution management system assists traders in making execution decisions by providing real-time data relating to indications of interest and market statistics (e.g., how large an order is relative to average volume).

19 In this Section, AMG has provided a brief overview of the controls imposed by FCMs and DCMs. However, AMG defers to comments filed by the FIA, CME, ICE and others directly representing the FCM and DCM perspectives.
In accordance with the FIA Guide, an FCM typically imposes pre-trade risk controls on an order regardless of the method used to transmit the order to the FCM. The FCM’s pre-trade risk controls are designed to prevent an order that breaches the FCM’s risk controls from being transmitted to a DCM. In the event that an FCM’s risk control is triggered, the order will not be routed to the DCM, and an FCM representative will notify the asset manager about the triggering of the risk control. An FCM is appropriately situated to determine specific parameters of risk controls, with the ability to tailor risk controls based on its knowledge of a certain customer’s trading history, credit risk and other information.

The DCM itself also imposes risk controls to orders to prevent market disruptions, as each DCM has a vested interest in protecting the integrity of its markets. For example, CME subjects all orders that are entered on Globex to order size limits, price banding and an array of other risk controls. When a DCM sets order size limits on individual contracts, it subjects all orders and market participants to order size limits, rejecting orders whose quantity exceeds a pre-defined maximum quantity. Orders are also subject to price banding, which is a tool designed to prevent orders from being entered at erroneous prices to help mitigate the potential for market disruption.

Generally, DCMs offer a stop-logic functionality to mitigate artificial and disruptive market spikes potentially caused by the continuous triggering, election and trading of stop orders during an illiquid market period. CME’s stop-logic functionality, for example, causes the market to automatically enter a reserve period for a certain number of seconds when stop orders, if elected, would result in execution prices in excess of pre-defined thresholds. During this reserve period, new orders are accepted and CME publishes an indicative price. Trades do not occur until the reserve period concludes, providing participants an opportunity to respond to a demand for liquidity. CME has stated that the stop-logic functionality reversed the course of the Flash Crash. During the Flash Crash, the stop-logic functionality caused a halt in trading, thereby providing enough time to replenish liquidity. As these risk controls demonstrate, DCMs are well suited to identify where tools may enhance market integrity and develop and implement such tools.

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20 See, e.g., FIA Guide at 7-16.

21 The reserve period is from 5 to 20 seconds, depending on the characteristics of the product and time of day that the stop-logic functionality is triggered. Letter from Bryan Durkin, Chief Commercial Officer, CME Group, to Melissa Jurgens, Secretary, U.S. Commodity Futures Trading Commission (Dec. 11, 2013).

22 Id.

23 Id.
II. The Proposal’s Requirements Impose Duplicative Tools, Policies and Procedures, Increasing Costs with Limited Benefit to Market Integrity

The Proposal’s requirements would apply to “AT Persons”, specifically, Commission registrants who use “Algorithmic Trading” to trade commodity interests on a DCM. These defined terms, which establish the Proposal’s scope, should be narrowed and clarified for the reasons set forth below.

A. The Definition of “AT Person” Should Not Import Every Commission Registration Status

The CFTC has proposed a definition of “AT Person” that encompasses “any person registered or required to be registered as a—(1) Futures commission merchant, floor broker, swap dealer, major swap participant, commodity pool operator, commodity trading advisor, or introducing broker that engages in Algorithmic Trading on or subject to the rules of a designated contract market; or (2) Floor trader as defined in paragraph (x)(3) of this section.”

The Commission should not determine AT Person status by reference to a market participant’s registration status or absence thereof, particularly because the registration categories applicable to asset managers are not based on their role or function in executing trades. The regulatory rationale for the registration of a CPO or CTA is due to the CPO’s or CTA’s responsibilities to investors whose funds are managed or who are being advised to trade in commodity interests, by the CPO or CTA, and not because a CPO or CTA trades in a particular manner.

The proposed inclusion of registered CPOs and CTAs within the definition of AT Person results in a significant disparity by capturing CPOs and CTAs that are registered with the Commission but not those that are not required to register. A person who uses an algorithm to generate orders, routes the orders to a DCM through an FCM (i.e., not through DEA) and is not otherwise registered with the Commission does not fall within the proposed AT Person definition, while a CPO or CTA that engages in the exact same algorithmic trading activity falls within the AT Person definition simply by virtue of the CPO’s or CTA’s registration status (thereby becoming subject to the burdens imposed by Proposed Reg AT). Registration status in and of itself does not present operational risk to, or threaten the integrity of, the markets. However, the Proposal fails to explain any policy reason to support imposing an entirely new regime on the algorithmic trading of

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24 Proposed Regulation 1.3(xxxx), Proposal at 78,937.
25 The Proposal itself appears to implicitly recognize this disparity, offering three examples to illustrate when an algorithmic trader, such as an asset manager, would be deemed to be an AT Person. In all three examples, the algorithmic trader, a non-registrant, directs an order to an FCM using an algorithm, but the algorithmic trader does not use DEA. The Proposal states that the algorithmic trader is not an AT Person because “it is not registered and does not use DEA”. Proposal at 78,862-63.
CPOs and CTAs by virtue of their registration status, but not imposing the same regime on other algorithmic traders that are not registered with the Commission despite being engaged in identical activities. The Proposal’s focus on the registration status of an algorithmic trader is misplaced.

Instead of using registration status to determine which algorithmic trading firms should fall within the Proposal’s scope, the Proposal should impose risk controls and related obligations that are based on the degree of the trader’s interaction with the DCM. An algorithmic trader that uses a Black Box to trade on a DCM through DEA introduces a different set of risks to the marketplace than a trader with indirect access (i.e., through the order routing system of its FCM), because the order of an algorithmic trader that uses DEA will not flow through, or be subject to the risk controls of, an executing clearing firm before reaching the DCM. By tailoring the definition of AT Person to capture algorithmic traders using DEA, the Commission will more appropriately focus on risk and whether a market participant’s activities have the potential to cause harm to the market. As stated in Section I.B., above, and in comment letters submitted by DCMs, the DCMs already have controls in place to prevent disruptions and may, as a result, already have a tested formulation for risk-based controls that the Commission could use instead.

Further, an asset manager’s electronic submission of an order to an FCM with instructions for the FCM to use its automated trading system to efficiently execute the trade should not bring the asset manager in scope as an AT Person. Common execution algorithms, including those set forth in Appendix A, deployed by the FCM’s servers and systems are squarely addressed by the FCM’s risk management and do not pose any risks not already addressed by existing standards.

For these reasons, we respectfully request that the Commission modify the definition of AT Person to capture only the specific activity, and the persons directly engaged in such activity, that gives rise to the risks that the Commission is seeking to mitigate. We recommend that the Commission adopt a modified AT Person definition that (1) limits AT Person status solely to algorithmic traders using a Black Box system to access DCMs through DEA; and (2) eliminates the “commodity pool operator” and “commodity trading advisor” elements.

Alternatively, if “commodity pool operator” or “commodity trading advisor” are retained in the definition of “AT Person”, the definition should be clarified to apply only to the person directly engaged in algorithmic trading.26 For example, when a CPO engages in the common practice of

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26 The Commission asked whether a commodity pool itself should be considered an AT Person. Id. at 78,843-44 (Question 15). AMG submits that this question should be answered in the negative. Importantly, pools do not act or trade of their own accord. A pool’s trading activities and any algorithmic trading activities are controlled by the operators or advisors of the pool, as applicable. If the Commission chose to define a pool as an AT Person, and require a pool’s sponsor or investment manager to become AT Persons, the pool’s sponsor or investment manager would be required to implement duplicative policies and procedures for itself and each pool that qualifies as an AT Person under the Proposal. Application of the Proposal on a pool-by-pool basis would lead to confusion and
appointing a third-party advisor to perform investment management duties on behalf of its fund, the Proposal should be revised to make clear that, the CPO will not be deemed to be an AT Person so long as the CPO itself does not transmit algorithmic orders on behalf of the fund. Likewise, if registered CPOs and CTAs are kept within the AT Person definition, the Proposal should be revised to clarify that a CPO or CTA is only within the scope of the rule when it is acting in a registered capacity, such that pools managed that do not require CPO or CTA registration will not be impacted by virtue of the coincidence that the manager also has registered pools.

B. The Definition of “Algorithmic Trading” Should Not Capture Every Mode of Automated Trading

1. The Commission Should Not Add to the Definition of Algorithmic Trading Algorithms Used Solely to Generate Trading Recommendations

In the Proposal’s release, the Commission asked whether the definition of Algorithmic Trading should be expanded to encompass orders that are generated using algorithmic methods but are then manually entered into a front-end system by a natural person, who determines all aspects of the routing of the orders (Question 7). AMG believes that the Proposal should not be expanded and that the Commission should make clear that algorithms that precede a human deciding to move forward with the trade should be outside of the definition of “Algorithmic Trading,” even when the human approval results in the trade then being communicated through automated means.

Given the Commission’s goal of mitigating the risk of market disruptions, the Commission should focus on that risk, and not on whether a natural person or an algorithm developed a trading recommendation because the generation of the recommended order in and of itself does not present would not address the real issue, which is risk mitigation by the party directly engaged in the algorithmic trading activity.

27 The Commission asked for comment on the definition of Algorithmic Trading:

The Commission, recognizing that natural person traders who manually enter orders also have the potential to cause market disruptions, is considering expanding the definition of Algorithmic Trading to encompass orders that are generated using algorithmic methods (e.g., an algorithm generates a buy or sell signal at a particular time), but are then manually entered into a front-end system by a natural person, who determines all aspects of the routing of the orders. Such order entry would not represent Algorithmic Trading under the currently proposed definition. The Commission requests comment on this proposed expansion of the definition of Algorithmic Trading, which the Commission may implement in the final rulemaking for Regulation AT. The Commission requests comment on the costs and benefits of this proposal, in addition to any other comments regarding the effectiveness of this proposal in terms of risk reduction.

Proposal at 78,841 (Question 7).
the risk of a market disruption. In the scenario in Question 7, a natural person has the opportunity to review a trading recommendation and make a determination whether or not to enter an order through a front-end system based on the recommendation that is generated by an algorithm. After the person decides to place the order, it will pass through the FCM’s and DCM’s risk controls. We fail to see where risk to the market arises simply by using an algorithm to generate a trading recommendation where there is subsequent human judgment exercised to decide whether to follow the trade recommendation.

Further, manually entering the trade should not be treated differently from systems that allow personnel to auto-populate an investment decision algorithm’s trading recommendation. As explained above, rather than entering the trading recommendation manually into an AORS, some asset managers use software that enables the portfolio management personnel to move the recommendation into an execution management system by performing a “drag and drop” from the investment decision algorithm to the execution management system or by clicking a button that causes the order to be transmitted. This automation reduces risk of keying errors and should not, as a result, be disadvantaged under the Proposal from manual entry of the same order.

For these reasons, AMG recommends that the Commission not expand the definition of Algorithmic Trading to capture algorithmic tools that generate trading recommendations and clarify that auto-population after personnel approve the recommendation will not bring the investment decision algorithm in scope as “Algorithmic Trading.”

2. The Commission’s Definition of Algorithmic Trading Should Be Revised to Appropriately Tailor the Proposal’s Requirements to Black Boxes that Trade Through DEA

As proposed, the definition of Algorithmic Trading would broadly encompass any computer algorithm or system that, “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”, where the order is electronically submitted to a DCM for processing. 28

This definition should be narrowed to more appropriately capture the types of algorithmic trading systems that present material risks to the market—namely, orders generated by a Black Box (possessing the attributes described above in Section I.A.) that are transmitted to a DCM without human intervention. Automated trading systems such as execution algorithms that employ discretion limited to time and price discretion, or, for example, volume-weighted average price (“VWAP”) trading strategies, should not be included within the definition of “Algorithmic Trading” because

28 Proposed Regulation 1.3(zzzz), Proposal at 78,937.
they do not have the capability to execute orders beyond the specific parameters set by the trader and pose lower risks to the marketplace with less potential to disrupt trading on a DCM. Order optimization algorithms (such as execution management systems) have the effect of minimizing the impact an order has on the market without introducing new market risk.

The Proposal’s inclusion of the broad phrase “otherwise makes determinations with respect to an order” in the definition of Algorithmic Trading does not distinguish between Black Box and trades for which some human intervention is required to initiate trades. Order parameters differ in terms of materiality and, while some algorithms have limited discretion in selecting order parameters, others influence material parameters such that they could pose greater risk to market integrity if they generate and route orders to a DCM through DEA. As described earlier, a Black Box is empowered to initiate trades whereas VWAP and other standardized limited-discretion automated trading systems require a natural person to first determine the essential parameters (i.e., which contract, buy or sell, and quantity) of the order while an automated trading system only implements or optimizes the order within these parameters. An automated trading system requires some form of human intervention whereas a Black Box does not. This distinction is critical and, by failing to recognize it, the Proposal’s definition of Algorithmic Trading encompasses several types of automated trading systems that do not pose the risks that the Proposal is attempting to mitigate.

Accordingly, we request that the Commission make revisions to its regulatory text of the definition of Algorithmic Trading to clarify that the definition only encompasses Black Boxes with DEA. AMG intends to supplement this comment letter with a submission to the Commission that provides suggested revisions in the form of a markup.

AMG further recommends that the Commission should add limiting language in paragraph (2) of the definition of Algorithmic Trading, that the order, modification or order cancellation must be electronically submitted “by the computer algorithm or system that generated the order without human intervention” for processing on or subject to the rules of a DCM. Adding the italicized language would make clear that the Proposal’s definition of Algorithmic Trading applies to a Black Box system as opposed to all automated trading systems.

To illustrate the over-breath of the Proposal’s definition of Algorithmic Trading, consider that the definition of Algorithmic Trading would capture a “child” order created when an order for a certain number of contracts (the parent order) is partitioned by a natural person or when a natural person selects an order execution optimization algorithm to partition the order into multiple smaller orders (each a child order) equal in sum to the size of the parent order. When a natural person enters the parent order into a front-end system, and selects the relevant order execution optimization algorithm, and the algorithm optimizes the execution of the order (i.e., by determining whether to divide the order into smaller “child” orders and at what time to submit the child orders to the

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29 *Id.*
DCM), the natural person has determined all of the essential parameters of the order (including the contract type, whether to buy or sell, total order size and, typically, a price limit). The algorithm does not have discretion to modify the essential terms of the parent order, and the parent order is at all times subject to the trader’s discretion. Also, the child orders generated by the algorithm are subject to the FCM’s risk parameters before they are submitted to the DCM, which has its own risk controls.

This example demonstrates the need for a more focused and clearer definition of Algorithmic Trading that avoids the application of Proposed Reg AT to widely-used automated trading systems that require human intervention to generate an order. An automated trading system that optimizes order execution, including one that enters child orders based on the constraints imposed by the terms of the parent order, does so simply by identifying an effective method to submit orders to the exchange without causing a disruption to the market.

3. The Commission Should Clarify the Application of the Carveout from the Definition of Algorithmic Trading

The Proposal states 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.”\(^\text{30}\) This carveout has the effect of increasing ambiguity of the definition of Algorithmic Trading because it is unclear under what circumstances the carveout will apply.

The Commission should clarify that the carveout encompasses any means of communication, AORS or other interfaces a customer uses to communicate orders to its FCMs (as discussed in Section I., above), even if a customer’s FCM or the clearing FCM subsequently uses an Algorithmic Trading system to route an order to a DCM. As such, asset managers that do not directly access an algorithmic trading system and merely use an electronic interface to transmit an order electronically to an FCM for execution through the FCM’s automated trading systems, such as a VWAP (or other order optimization program that exercises some degree of discretion by determining the exchange, timing or quantity of orders that the asset manager transmits through the FCM) would not fall within the definition of Algorithmic Trading.

A customer who has verbally or electronically transmitted an order to its FCM should not be viewed as an AT Person if the FCM subsequently transmits the order through an automated trading system that exercises a limited degree of discretion, including execution or order routing algorithms. We are concerned that Commission staff may view a customer who has manually entered order parameters into an AORS to transmit its order to an FCM as an AT Person simply because the FCM subsequently inputs the customer’s order into the FCM’s automated trading system (for example a

\(^{30}\) Id. (emphasis added).
VWAP program) for further processing before transmittal to the DCM. Whether communicated verbally or through an AORS, the order will pass through the FCM’s own pre-trade risk controls and, ultimately, through the DCM’s pre-trade risk controls, which should obviate the need to include the customer within the AT Person category.

For these reasons, AMG requests that the Commission delete the passage “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” from the final definition of Algorithmic Trading to clarify that an FCM’s handling of an order transmitted to the FCM by a customer will not cause the FCM’s customer to be considered to be engaged in “Algorithmic Trading.”

III. Proposed Reg AT’s Controls Are Not Tailored to the Risks Presented by Different Types of Automated Trading Systems and Different Types of Access to DCMs

The Proposal’s approach to development, monitoring, and compliance of Algorithmic Trading systems as proposed in Regulation 1.81 applies a uniform standard of regulation to all types of AT Persons, regardless of whether they are customers or FCMs, or whether they design proprietary algorithms themselves or license algorithms from third parties. Such a uniform standard is overly burdensome and unnecessary in some instances because the standard fails to consider specific attributes of disparate types of algorithmic traders. One size regulation does not fit all. AMG believes that flexible, principles-based requirements are more likely to achieve the Proposal’s desired effect.

A. The Proposal’s Development, Testing and Recordkeeping Requirements Related to Algorithmic Source Code Are Not Adequately Tied to a Market Participant’s Potential to Introduce Risk into the Markets

Proposed Regulation 1.81(a) requires that, at a minimum, AT Persons maintain “a development environment that is adequately isolated from the production trading environment,” test “all Algorithmic Trading code and related systems and any changes to such code and systems prior to their implementation,” and conduct regular back-testing and stress tests of “Algorithmic Trading” systems (as defined in the Proposal). An AT Person would be required to test the Algorithmic Trading system’s code and establish a plan of internal coordination and communication between staff who design, change, test, and develop controls for an Algorithmic Trading system and compliance staff. AT Persons also would be required to designate and train all staff involved in designing and testing algorithms.

31 Proposed Regulation 1.81, Proposal at 78,938.
32 Proposed Regulation 1.81(a), Proposal at 78,938.
33 Proposed Regulation 1.81(c)(2)(ii), Proposal at 78,938.
34 Proposed Regulation 1.81(d), Proposal at 78,938.
Notwithstanding AMG’s recommendation to reduce the scope of the Proposal (see Section II., above), asset managers typically use a third-party’s Algorithmic Trading systems and/or do not have DEA. Thus, asset managers may find the obligations imposed by Proposed Reg AT impossible to fulfill. For example, asset managers that do not develop any of the third-party systems that they use or license (including an FCM's automated trading system) do not have access to the source code and are not able to test the algorithms. Likewise, although Proposed Regulation 40.21 requires DCMs to provide test environments for AT Persons, asset managers that do not have DEA cannot place trades directly on DCMs and are only capable of testing their ability to place trades with the FCM through a front-end system. Requiring asset managers that use third-party systems to implement the proposed policies and procedures for the development and testing of third-party-provided Algorithmic Trading systems would be impossible for them to accomplish. Moreover, asset managers that employ proprietary algorithms could test the source code but the Proposal’s other requirements related to risk controls would be duplicative and costly, with limited benefits. FCMs generally impose risk controls that are recommended in the FIA Guide. Further measures are not required for trades that flow through the FCM’s systems.

Alternatively, asset managers should be afforded the flexibility to design compliance and testing programs that are more appropriately tied to the manner in which they utilize algorithms. The FIA Guide recommends coordinating internal communication and implementing functional and non-functional tests, such as stress testing; however, FIA notes that such tests should be flexibly incorporated as necessary, depending on the type of code subject to the testing. Similar to the FIA Guide, the Proposal should be designed with a flexible approach to compliance that permits an AT Person to choose appropriate measures and testing standards that relate to the potential risk of its systems.

B. Requirement to Engage Non-Trading Personnel to Perform Continuous Real-Time Monitoring of Algorithmic Trading Systems Imposes Impractical, Expensive Burdens

The Proposal requires that an AT Person ensure that each of its Algorithmic Trading systems is subject to continuous, real-time monitoring by staff knowledgeable in the Commodity Exchange Act, Commission regulations, DCM rules and the Algorithmic Trading system itself while the system is engaged in trading. Monitoring staff must have the ability to disengage the system and contact a DCM if necessary, among other abilities, but must not be actively engaged in trading while monitoring the Algorithmic Trading systems. Related to this proposed requirement, the

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35 Proposed Regulation 40.21, Proposal at 78,941.
36 See, e.g., FIA Guide at 27, 29.
37 Id.
38 Proposed Regulation 1.81(b), Proposal at 78,938.
39 Id.
Commission asked for comment on the following question: “Is it typical that persons responsible for monitoring algorithmic trading do not simultaneously engage in trading activity?\(^{40}\)

The requirement to have a staff member 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. This proposed requirement will add costs without addressing the complexity involved in analyzing a systems issue and determining an effective resolution. The Proposal does not explain how this measure will reduce risk in a way that is commensurate with the costs associated with complying with the requirement.

Rather than prescriptively mandate an impossible task, the Proposal should include a principles-based requirement to monitor as appropriate. For example, automated monitoring of trading with alerts that stop trades or flag personnel to review trades, are built into some Algorithmic Trading systems. Likewise, a trader may be in the best position to determine whether an order was entered incorrectly or an issue has occurred with an Algorithmic Trading system. Traders typically monitor their positions and will know which orders have been submitted to a DCM.

Thus, the Commission should modify the requirement that an AT Person engage staff responsible for continuous real-time monitoring and, instead, provide greater flexibility by allowing an AT Person to determine how best to monitor its Algorithmic Trading systems.

C. The Annual Report Requirement is an Unnecessary and Costly Burden

The Proposal requires AT Persons to submit an annual report to each DCM on which the AT Person is engaged in Algorithmic Trading.\(^{41}\) AMG does not believe that the annual reports will assist DCMs in performing their duties, or that these reports will mitigate risk and, therefore, recommends removing the annual report requirement in its entirety.

D. The Source Code Repository Requirement Puts Highly Proprietary Information at Risk Without Measurable Benefits

The Proposal requires retention of source code in a repository in accordance with Commission Regulation 1.31,\(^{42}\) which permits Commission or Department of Justice staff to access a registrant’s records (such as the source code).\(^{43}\)

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\(^{40}\) Proposal at 78,859 (Question 47).

\(^{41}\) Proposed Regulation 1.83(a), Proposal at 78,939.

\(^{42}\) 17 C.F.R. § 1.31.

\(^{43}\) Proposed Regulation 1.81(a)(1)(vi) reads: “Maintaining a source code repository to manage source code access, persistence, copies of all code used in the production environment, and changes to such
The source code repository requirement threatens commercially valuable intellectual property and proprietary trading strategies. Maintaining a repository will require more personnel to access code in order to monitor that the code is being maintained (to the extent in can be maintained), exposing highly proprietary information to, for example, compliance personnel who check that policies are being followed and systems personnel who build and maintain the repositories, among others. Additionally, the release of source code to the Commission poses far different risks than routine records maintained by registrants. Not only would the source code be exposed to more people, including Commission staff and outside experts who likely would be required to interpret the information.

The source code requirement is also impractical and may impose requirements with which an AT Person may not be able to comply. As a threshold matter, asset managers that utilize a third party’s Automated Trading systems will be unable to maintain a repository because they do not have access to the source code. Also, algorithms are continually being adjusted. While those adjustments are typically logged, a complete copy of each iteration of the source code is not retained. Moreover, retaining a complete copy of each version of the source code would not only be burdensome (if not impossible), but could actually increase the security risk posed to the AT person.

For these reasons, we request that the Commission remove the source code requirement or, at a minimum, apply it only to entities that use proprietary algorithms and possess the ability to comply with the requirement. Alternatively, if the Commission chooses not to eliminate the requirement, we request that the Commission utilize more appropriate retention standards than Commission Regulation 1.31 and mandate special confidentiality requirements and protections that would apply if the Commission requires access to the source code.

E. The Obligation to Notify DCMs of Algorithmic Trading Events Is Unduly Burdensome and Weakens Effectiveness of Notifications

The Proposal requires an AT Person to notify a DCM each time the AT Person experiences an “Algorithmic Trading Event,” including minor disruptions to the AT Person’s trading (such as system glitches and issues where only the trader’s system is disrupted) and non-compliance with internal policies and procedures. The term “Algorithmic Trading Event” casts a wide net due to it
being defined to include the broadly defined “Algorithmic Trading Compliance Issue”\(^{46}\) and “Algorithmic Trading Disruption”\(^{47}\).  

While AMG supports the Commission’s efforts to incorporate a requirement of warning DCMs, the requirement is too broad to have the intended effect. In fact, it could have the unintended impact of generating “noise” that could make truly important disruptions more difficult to communicate effectively. Internal disruptions or issues of non-compliance with the AT Person’s own internal policies, both of which are captured by “Algorithmic Trading Event”, will draw attention away from issues that could potentially cause harm to a DCM’s markets.\(^{48}\)  

Further, the requirement to notify DCM staff each time an Algorithmic Trading Event occurs is time consuming, distracts from the need to resolve the issue, and could cause unwarranted panic. Internal policies and procedures differ among algorithmic traders and are tailored to each algorithmic trader’s business. Some algorithmic traders’ policies and procedures may be more stringent than the Proposal’s requirements. Depending on an AT Person’s internal policies, DCM staff could be inundated with notifications because the proposed definition of Algorithmic Trading Compliance Issue does not incorporate a materiality standard. Therefore, DCM staff could receive a significant number of notifications, making it difficult to discern minor issues from those with the potential to adversely affect market integrity and potentially present risk to others.  

A notice requirement based on internal policies and procedures forces AT Persons to consider the disruptive nature of the reporting requirements in adopting policies and procedures and may have the unintended consequence of causing AT Persons to adopt more lenient approaches than they otherwise would. DCMs already have effective notification procedures in place, tailored to their markets and customers. The FIA Guide offers flexible measures to address this kind of requirement, including emergency notification procedures to respond to an emergency situation and

\(^{46}\) Proposed Regulation 1.3(tttt), Proposal at 78,937. “Algorithmic Trading Compliance Issue” is defined 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 Commodity Exchange Act 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.” Id.  

\(^{47}\) Proposed Regulation 1.3(uuuu), Proposal at 78,937. “Algorithmic Trading Disruption” is defined to mean “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.” Id.  

\(^{48}\) An AT Person should not be required to report an issue that has no market impact, for example, where an FCM’s or DCM’s risk filters reject a trader’s order. In this situation, the FCM’s or DCM’s risk filters have worked exactly as intended and there should be no need to notify DCM staff about an order that was rejected by a risk control that was operating as it should.
notify the exchange upon discovery of an issue, periodically with the progress of the issue’s resolution and upon conclusion of the issue. We encourage the Commission to allow DCMs to continue to provide procedures for incident reporting that are tailored to each DCM’s markets and its existing risk controls.

We request that the Commission remove the language “the AT Person’s own internal requirements” and add a materiality standard to the definition of Algorithmic Trading Compliance Issue. We further request that the Commission eliminate clause (1) (“The Algorithmic Trading of such AT Person”) from the definition of Algorithmic Trading Disruption. By revising the definitions in these ways, the Commission will codify an effective approach while obviating the need to notify DCM staff of Algorithmic Trading Events that are purely internal incidents or other types of incidents that have no material adverse effect on the market.

IV. Proposed Reg AT Interferes With The Use of Appropriate Self-Trade Prevention Tools

Proposed Regulation 40.23(a) would mandate a DCM to “either apply, or provide and require the use of, self-trade prevention tools that are reasonably designed to prevent self-trading and are applicable to all orders on its electronic trade matching platform.” The proposed requirement does not consider that a particular DCM’s self-trade prevention tool may not satisfy all participants’ needs in all circumstances. Market participants have varying business models and needs. Some market participants prefer to use existing DCM-provided tools while other market participants use alternate methods to comply with the prohibition on self-trading. Further, some market participants have enhanced self-trade prevention tools that may be stricter than, or incompatible with, a standard DCM self-trade prevention tool.

The Proposal’s self-trade prevention proposal offers a solution to a non-existent problem. Wash trades consist of less than 1% of all trades on DCMs. Instead of preserving market integrity, the Proposal’s requirement would actually impede a firm’s flexibility to use self-trade prevention tools appropriate for the firm’s business. We encourage the Commission to reconsider the proposed

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49 FIA Guide at 33.

50 Proposal at 78,941. The Commission requested comment on the following question: “Proposed § 40.23(a) would require DCMs to either apply, or provide and require the use of, self-trade prevention tools. Please comment whether § 40.23(a) should, in addition, permit market participants to use their own self-trade prevention tools to meet the requirements of proposed § 40.23(a), and if so, what additional regulations would ensure that DCMs are able to: Ensure that such tools are comparable to DCM-provided tools; monitor the performance of such tools; and otherwise review such tools and ensure that they are sufficiently rigorous to meet the requirements of § 40.23.” Id. at 78,881 (Question 94).

51 Bryan Durkin, Chief Commercial Officer, CME Group, Remarks at the Commodity Futures Trading Commission Technology Advisory Committee Hearing (Feb. 23, 2016).
mandate and instead permit DCMs to continue to allow firms to use alternative tools appropriately tailored to their needs so long as the tools satisfy the DCM’s standards.

V. Enforcement Actions Should Not be Premised Upon System or Procedural Failures Alone

Under proposed Regulation 1.81(c), an AT Person must “implement written policies and procedures reasonably designed to ensure that each of its Algorithmic Trading systems operates in a manner that complies with the Commodity Exchange Act and the rules and regulations thereunder.”

The Proposal should make clear that Commission Regulation 1.81(c) will not itself become grounds for an enforcement action, other than through supervisory responsibilities pursuant to Commission Regulation 166.3, if applicable. The Commission should appreciate that AT Persons will experience systems problems on occasion despite their best efforts to mitigate the risk that such issues will occur, and should not permit enforcement actions solely on the basis of experiencing any such issue to the extent it does not have a materially adverse effect on the market. We request that the Commission clarify this point.

VI. The Proposal’s Costs of Compliance Outweigh the Marginal Benefits of Proposed Reg AT that Extend Beyond DCM and Industry Practices

By requiring a duplicative approach to pre-trade risk controls and related requirements, the Proposal would impose a very costly regime on the industry as a whole. Asset managers and their customers specifically will be subject to costs not proportionate with their business models or market activities. The costs imposed on asset managers will, ultimately, be borne by investors in mutual funds, beneficiaries of pension funds and other clients. At the same time, the Proposal fails to demonstrate a corresponding benefit to the public. In consideration of the fact that many market participants have already adopted many of the FIA Guide’s recommendations, which have proven to be effective, we request the Commission to reconsider the overly burdensome and one-size-fits-all approach the Proposal imposes on disparate market participants and adopt more flexible measures calibrated to a market participant’s use of automated trading systems and the risk such use may introduce to the market.

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52 Proposal at 78,938.

53 17 C.F.R. § 166.3.
For the reasons stated above, SIFMA AMG recommends that the Commission:

- Adopt unambiguous definitions focused on systems that pose greater risk to market integrity and users of such systems by amending the definitions of “AT Person” and “Algorithmic Trading”.

- Tailor proposed Regulation 1.81 to the risks that the use of certain Algorithmic Trading systems could pose to the market and apply development and testing requirements related to source code only to AT Persons that develop their own algorithmic trading systems.

- Eliminate the Proposal’s source code repository and annual report requirements.

- Amend the natural person monitoring requirements to reflect the complexity of responding to a systems issue and that a trader can most effectively monitor his or her positions and determine whether an issue has occurred.

- Remove references to an AT Person’s internal policies or disruptions in the definitions of “Algorithmic Trading Compliance Issue” and “Algorithmic Trading Disruption” to prevent unduly burdening DCMs and AT Persons with notifications of internal events that do not impact the market.

- Permit DCMs to continue offering flexible solutions related to self-trade prevention tools.

- Clarify that experiencing an Algorithmic Trading Event would not necessarily cause the Commission to take enforcement action against an AT Person.

We appreciate the opportunity to provide the Commission with our comments and recommendations concerning the Proposal and are available to discuss our comments or any of the issues raised by the Proposal with the Commission or its staff. If the staff has any questions, please do not hesitate to contact Tim Cameron at 202-962-7447 or tcameron@sifma.org, Laura Martin at 212-313-1176 or lmartin@sifma.org, or Michael Philipp at 312-324-1905 or michael.philipp@morganlewis.com.

Respectfully submitted,

Timothy W. Cameron, Esq.
Asset Management Group – Head
Securities Industry and Financial Markets
Association

Laura Martin, Esq.
Asset Management Group – Managing
Director and Associate General Counsel
Securities Industry and Financial Markets
Association
CC:    The Honorable Timothy Massad, Chairman  
       The Honorable Sharon Bowen, Commissioner  
       The Honorable J. Christopher Giancarlo, Commissioner  
       Mr. Vincent McGonagle, Director, Division of Market Oversight
APPENDIX A

Examples of Automated Trading Systems Used by Asset Managers and the Systems’ Objectives

<table>
<thead>
<tr>
<th>Algorithm</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom (Market + Float + Tick)</td>
<td>Get a portion of the order done at the market and work the rest passively to seek price improvement.</td>
</tr>
<tr>
<td>Curve spread trading</td>
<td>Executes a spread (curve/butterfly) order with controlled pace and ratio to minimize legging risk.</td>
</tr>
<tr>
<td>Iceberg</td>
<td>Works a proportion of the order at a specified limit price. Automatically sends the next slice once the previous has executed. Similar to a traditional exchange iceberg order.</td>
</tr>
<tr>
<td>Liquidity seeking (Minimize implementation shortfall)</td>
<td>Liquidity taking algo that determines a fair price based on the historical spread and current market conditions.</td>
</tr>
<tr>
<td>Opportunistic (Capture favorable price versus arrival)</td>
<td>Executes at a higher rate when prices are favorable to the arrival price and at a lower rate when prices are less favorable.</td>
</tr>
<tr>
<td>Peg</td>
<td>Places resting orders pegged to the current inside market price of the instrument. The algo will move dynamically with market prices, ensuring the strategy will trade on the passive side.</td>
</tr>
<tr>
<td>POV</td>
<td>A limit order strategy designed to target a user-specified percentage of volume by following real-time trades over a specific trading interval.</td>
</tr>
<tr>
<td>Tick</td>
<td>Order is placed when a user wants to exercise price discretion of a single tick or more from their limit order. If bid or offer goes below a certain volume threshold, the order is executed.</td>
</tr>
<tr>
<td>Time Slice</td>
<td>Breaks a larger order into smaller pieces that are spread evenly over time. Auto reprice feature enables user to capture spread and minimize shortfall. The auto reprice feature adjusts an order’s limit price to avoid the risk that the order will not be filled in its entirety. For example, if a large buy order is entered using time slice and has a limit price of $100 but the market price increases to $102, the limit price will be adjusted to $102 so the order will be filled.</td>
</tr>
<tr>
<td>Time Trigger</td>
<td>Order is triggered or cancelled at a specified time.</td>
</tr>
<tr>
<td>TWAP</td>
<td>Targets a time-weighted average price over a specific time period. Linear execution profile. For example, if a trader has an order consisting of 300 contracts that the trader wishes to place over a 30-minute period, orders for 10 contracts will be entered each minute during the 30-minute time frame.</td>
</tr>
<tr>
<td>Urgent liquidity seeking (Hidden footprint)</td>
<td>Takes liquidity without showing orders to the market.</td>
</tr>
<tr>
<td>VWAP</td>
<td>Targets a volume-weighted average price over a specific time period based on historical volume profile.</td>
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</tbody>
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