Regulatory Notice 15-06

Registration of Associated Persons Who Develop Algorithmic Trading Strategies

FINRA Requests Comment on a Proposal to Require Registration of Associated Persons Involved in the Design, Development or Significant Modification of Algorithmic Trading Strategies

Comment Period Expires: May 18, 2015

Executive Summary

FINRA is soliciting comment on a proposal to require registration as a Securities Trader of associated persons primarily responsible for the design, development or significant modification of algorithmic trading strategies, or who are responsible for supervising or directing such activities. The proposed rule text is attached as Attachment A.

Questions regarding this *Notice* should be directed to:

- Susan Tibbs, Vice President, Market Regulation, at (240) 386-5082;
- John Kalohn, Vice President, Testing & Continuing Education, at (240) 386-5800; or
- Racquel Russell, Associate General Counsel, Office of General Counsel, at (202) 728-8363.

March 2015

Notice Type
- Request for Comment

Suggested Routing
- Compliance
- Legal
- Operations
- Technology
- Trading and Market Making

Key Topics
- Algorithmic Trading
- High Frequency Trading
- Proprietary Trading
- Series 55

Referenced Rules and Regulatory Notices
- FINRA Rule 1250
- NASD Rule 1032

Financial Industry Regulatory Authority

Action Requested

FINRA encourages all interested parties to comment on the proposal. Comments must be received by May 18, 2015.

Member firms and other interested parties can submit their comments using the following methods:

- Emailing comments to *pubcom@finra.org*; or
- Mailing comments in hard copy to:

  Marcia E. Asquith
  Office of the Corporate Secretary
  FINRA
  1735 K Street, NW
  Washington, DC 20006-1506

To help FINRA process and review comments more efficiently, persons should use only one method to comment on the proposal.

Important Notes: The only comments that FINRA will consider are those submitted pursuant to the methods described above. All comments received in response to this Notice will be made available to the public on the FINRA website. In general, FINRA will post comments as they are received.[1]

Before becoming effective, the proposed rule change must be filed with the Securities and Exchange Commission (SEC) pursuant to Section 19(b) of the Securities Exchange Act of 1934 (SEA).[2]

Background and Discussion

The proposal set forth in this *Notice* is one of seven FINRA initiatives relating to equity market structure and automated trading activities, including high frequency trading (HFT).[3] These initiatives are designed to increase the scope of trading information FINRA receives, provide market participants and investors with more transparency into trading activities, and require employees at firms engaged in electronic trading to be trained, educated and accountable for their role in algorithmic trading strategies.

In today's highly automated environment, it has become commonplace for firms to trade securities using automated systems that initiate pre-programmed trading instructions based on specified variables, referred to as algorithmic trading strategies. If performed by an individual associated person, these trading activities would have required advance registration with FINRA as an Equity Trader.[4] FINRA is concerned that, in some cases, associated persons primarily responsible for the design, development or significant modification of an algorithmic trading strategy employed by a member firm (or for supervising or directing such activities) may lack adequate knowledge of the securities rules and regulations applicable to FINRA members operating in the securities markets, and this lack of knowledge could result in algorithms that do not comply with applicable rules.

The prevalence of use of algorithms in the marketplace has highlighted the risks that arise when such strategies are poorly designed. FINRA has observed situations in which algorithmic trading strategies have resulted in improper trading activities and potential securities law violations, including of Regulation NMS, Regulation SHO, SEA Rule 15c3-5 and other critical market and investor protection safeguards. Problematic conduct stemming from algorithmic trading strategies have included failure to check for order accuracy, inappropriate levels of messaging traffic, wash sales, failure to mark orders as "short" or perform proper short sale "locates," and inadequate risk management controls. FINRA believes that this problematic conduct could have been prevented, in part, through improved education regarding securities regulations for individuals involved in the algorithm development process. Thus, to ensure that sufficient consideration may be given to the regulatory requirements around order generation and trading activities, FINRA believes it is appropriate to require associated persons primarily responsible for the design, development or significant modification of algorithmic trading strategies (or for supervising or directing such activities) to meet the same minimum competency standards for knowledge of securities regulations as is applicable to individual traders.

Specifically, NASD Rule 1032(f) (Limited Representative—Equity Trader) sets forth the registration requirements for associated persons that, with respect to transactions in equity (including options), preferred or convertible debt securities effected otherwise than on a securities exchange, engage in proprietary trading, execute transactions on an agency basis, or directly supervise such activities.[5] Because algorithms that generate orders into the market perform comparable activities to those of individual traders by engaging in proprietary trading or executing orders on an agency basis, FINRA preliminarily believes that the NASD Rule 1032(f) registration category is most appropriate for designers and developers of these algorithms.[6]

For these purposes, an algorithmic trading strategy is any program that generates and routes (or sends for routing) orders (and order-related messages, such as cancellations) in securities on an automated basis.[7] While the specifics of such programs will vary from firm to firm, including the level and extent of automation within a particular program, FINRA expects that the scope would include, but not be limited to, the following automated trading programs:

- arbitrage strategies, such as index or exchange-traded fund (ETF) arbitrage;
- strategies that involve simultaneously trading two or more correlated securities due to the divergence in their prices or other trading attributes;

- order generation, routing and execution programs used for large-sized orders that involve dividing the order into smaller-sized orders less likely to result in market impact;
- order routing strategies used to determine the price, size and destination for routed orders, the use of "parent" and "child" orders, and displayed versus non-displayed trading interest;
- trading strategies that become more or less aggressive to correlate with trading volume in specified securities;
- trading strategies that minimize intra-day slippage in connection with achieving volume-weighted average prices and time-weighted average prices;
- strategies that create or liquidate baskets of securities, including those that track indexes or ETFs; and
- trading strategies that generate orders for alternative trading systems (ATSs) or other internal order matching engines.

Such systems generate orders into the marketplace or execute trades without material intervention by any person. For the purpose of this proposal, an order router alone would not constitute an algorithmic trading strategy; for example, a standard order router that routes retail orders designed solely to comply with best execution and be Regulation NMS compliant would not be an algorithmic trading strategy. Nor would an algorithm that solely generates trading ideas or investment allocations, but that is not equipped to automatically generate orders and order-related messages to effectuate such trading ideas into the market (whether independently or via a linked router), constitute an algorithmic trading strategy for purposes of the proposal.

FINRA notes that robust supervisory procedures, both prior to and after deployment of an algorithmic trading strategy, is a key component in protecting against problematic behavior stemming from algorithmic trading. FINRA believes that an individual qualification and educational requirement also would help improve regulatory compliance. However, FINRA also understands that this registration obligation will apply to some persons not currently required to register as Securities Traders, such as quantitative and technology specialists who traditionally would not consider their role as that of a Securities Trader.[8] FINRA also is aware that members may have concerns regarding the breadth of the application of the registration requirement, including whether the proposal would require entire development and information technology teams to be registered.

Therefore, FINRA proposes that the registration requirement be narrowly tailored such that it would not apply to every associated person that touches or is otherwise involved in the design or development of a trading algorithm. For example, junior developers and others who solely write code to implement design or modification instructions at the direction of another would not be required to register. FINRA understands that firms differ with respect to their structures and workflow processes around the design and development of algorithms, and expect that firms would analyze their particular structure and the roles of the employees involved in the creation of an algorithmic trading strategy for the purpose of identifying individuals *primarily* responsible for its design, development or significant modification (or for supervising or directing such activities). While structures and roles may differ, the goal of the registration proposal is to require firms to identify and register one or more key persons who possess knowledge of and responsibility for both the design of the intended trading strategy and the technological implementation (*e.g.*, coding) of that strategy, sufficient to evaluate whether the resultant product is designed not only to achieve business objectives, but also regulatory compliance.

By way of further example, where a senior or lead developer liaises with the business team regarding the design of the trading strategy and is *primarily* responsible for the process of developing (*i.e.*, coding) the algorithm to meet such objectives, that individual would be required to register as being primarily responsible for the development of the algorithmic trading strategy and supervising or directing the team of developers. Individuals under that person's supervision would not be required to register under the proposal. In addition, the senior or lead developer's supervisor would not be required to be registered under the proposal if that person is not involved in day-to-day supervision or direction of the development process.[9] Under this scenario, the associated person on the business side that is *primarily* responsible for the design of the algorithmic trading strategy, as communicated to the lead developer, also would be required to register (if not already required to register as a Securities Trader in light of his or her other duties). In the event of a significant modification to the algorithm, firms must ensure that the associated person primarily responsible for the significant modification (or the associated person supervising or directing such activity), is registered.

In certain cases, the development of a new algorithmic trading strategy (or modification to an existing strategy) may be originated and approved by a committee within the firm, including by committee members whose roles may be unrelated to trading or development (*e.g.*, sales personnel providing insight regarding client needs or research analysts regarding sector trends). In such cases, FINRA would not consider each committee member to be *primarily* responsible for the design of the algorithmic trading strategy, so long as an appropriately registered associated person is designated as primarily responsible for defining the business requirements of the trading strategy to be employed by the algorithm.

By limiting the registration requirements to only those persons primarily responsible for the design, development or significant modification of algorithmic trading strategies, or supervising or directing such activities, FINRA aims to ensure that there is a responsible individual with a basic level of familiarity with the regulatory obligations of the firm employing the algorithm, and expects that the competency of these key individuals would inform the behaviors of those acting under their supervision or at their direction.

Economic Impact Analysis

As noted above, FINRA is concerned that some associated persons primarily responsible for the design, development or significant modification of an algorithmic trading strategy employed by a member firm (or for supervising or directing such activities) may lack adequate knowledge of the securities rules and regulations applicable to FINRA members operating in the securities markets, and this lack of knowledge could contribute to the employment of algorithms that do not comply with applicable rules. FINRA has observed situations in which algorithmic trading strategies have resulted in securities laws violations. Further, FINRA notes that, under the current regulatory structure, some individuals responsible for the design and development of trading algorithms may not believe that they are required to be aware of the firm's responsibilities under FINRA rules and the federal securities laws.

The proposed rule is intended to enhance investor protection by encouraging the consideration of securities regulations when developing trading algorithms. The proposed registration requirement also may reduce uncertainty by certain market participants as to their obligations. It aims to do so through registration and ongoing education regarding securities regulations for certain individuals involved in the algorithm design and development process.

FINRA recognizes that the proposal would impose costs on member firms employing associated persons engaged in the activity subject to the registration requirement. Specifically, among other things, additional associated persons would be required to become registered under the proposal, and the firm would need to establish policies and procedures to monitor compliance with the proposed requirement on an ongoing basis. FINRA requests public comment on the estimated number of member firms that would be affected by the proposal, the estimated number of associated persons currently not required to register as Securities Traders that would be covered by the proposal, and the estimated costs associated with monitoring compliance with the proposed requirement.

FINRA also encourages commenters to identify potential indirect impacts, such as whether the proposal would discourage persons not currently required to register as Securities Traders from associating with a member firm in a capacity that requires registration, and whether the proposal would impose different costs on member firms of different sizes or business models. In addition, we request that commenters evaluate the scope of the proposed requirement and provide alternative approaches, where appropriate.

The proposal also would impose limited burdens on FINRA. For example, FINRA would need to develop policies and procedures to monitor the registration of associated persons primarily responsible for the design, development or significant modification of algorithmic trading strategies (or for supervising or directing such activities). Further, additional staff training would be required to conduct effective regulatory reviews. To minimize these burdens, FINRA intends to utilize its in-place systems and processes to the extent possible.

Request for Comment

FINRA requests comment on all aspects of the proposed registration requirement, including the appropriate scope of such a requirement and potential impacts on member firms and associated persons. FINRA requests that commenters provide empirical data or other factual support for their comments wherever possible. FINRA specifically requests comment concerning the following issues.

- The proposal would require registration as a Securities Trader by any associated person: (1) primarily responsible for the design, development or significant modification of algorithmic trading strategies; or (2) responsible for supervising or directing such activities. Are these activities/roles the correct ones on which to focus for purposes of a registration requirement, or are there other activities/roles that should be included? If these activities/roles should be changed or further refined, how so?
- FINRA believes that only those persons in the algorithm development and supervisory roles described above should be required to register—support personnel would not be within the scope of this requirement. Should support personnel be required to register? Please provide comment on how support personnel should be defined for the purposes of this proposal.
- The proposed registration requirement would, among other things, apply to associated persons primarily responsible for the "design," "development" or "significant modification" of algorithmic trading strategies (or for supervising or directing such activities). Are these activities equally influential on the regulatory compliance of the trading strategy ultimately employed by the algorithm?
- FINRA generally considers an "algorithmic trading strategy" to be any program that generates and routes (or sends for routing) orders or order-related messages in securities into the marketplace on an automated basis without material intervention by any person. The proposal would not capture standard order routers that are not designed to implement a particular strategy. Please provide comment on the scope of this term.
- FINRA believes that some firm personnel within the scope of this proposal already are required to register as Securities Traders,[10] but also anticipates that additional associated persons would be required to become registered and to take an exam. Would the proposed registration requirement discourage persons not currently required to register as Securities Traders from associating with a member firm? If so, what steps can be taken to reduce this impact? Please provide estimates of the number of associated persons not currently required to register as Securities Traders who would be covered by the proposal. Is the number different for member firms of different sizes or business models? What is the estimated number of member firms that would be required to have additional associated persons registered under the proposal? Would the exam fees and continuing education fees be paid by the firm or the associated person? What are the estimated costs associated with the firm monitoring for compliance with the proposed requirement?

- Is the Securities Trader examination the appropriate exam for the purpose of ensuring that the key parties involved in the design, development, or significant modification of an algorithmic trading strategy (or those supervising or directing such activities) are sufficiently knowledgeable of the regulations applicable to securities trading? Is a different existing FINRA examination preferable, or should a new exam be developed for this purpose?
- Are there alternative methods for FINRA to achieve the objectives of the proposed registration requirement? If so, what are these alternatives and why are they better suited than the proposed registration requirement?

Endnotes

1. FINRA will not edit personal identifying information, such as names or email addresses, from submissions. Persons should submit only information that they wish to make publicly available. *See* *Notice to Members 03-73* (November 2003) (Online Availability of Comments) for more information.

2. *See* SEA Section 19 and rules thereunder. After a proposed rule change is filed with the SEC, the proposed rule change generally is published for public comment in the Federal Register. Certain limited types of proposed rule changes, however, take effect upon filing with the SEC. *See* SEA Section 19(b)(3) and SEA Rule 19b-4.

3. *See* FINRA News Release "FINRA Board Approves Series of Equity Trading and Fixed Income Rulemaking Items" dated September 19, 2014.

4. The current Series 55 Examination Content Outline is available on the FINRA website. Additional registrations may be required pursuant to FINRA rules, depending upon the specific activities engaged in by such associated person.

5. NASD Rule 1032(f) provides that candidates for the Equity Trader registration category must pass the Series 55 examination; however, the FINRA Board of Governors authorized FINRA to file with the SEC a proposal to adopt the Securities Trader and Securities Trader Principal registration categories. The proposal would amend NASD Rule 1032(f) to replace the Equity Trader registration category with a Securities Trader registration category, and it would create the Securities Trader qualification examination (Series 57) to replace the current Equity Trader qualification examination (Series 55). As part of the proposal, FINRA would eliminate the prerequisite registration requirement in NASD Rule 1032(f) (General Securities Representative (Series 7) or Corporate Securities Representative (Series 62) prerequisite registration).

6. In addition to initially passing the examination and becoming registered, covered associated persons also would be subject to continuing education requirements every three years under FINRA Rule 1250, which is designed to ensure that associated persons remain up-to-date on regulatory developments applicable to their registration category.

7. While NASD Rule 1032(f) currently imposes a registration requirement on associated persons that effect transactions otherwise than on a securities exchange, the proposed registration requirement related to algorithmic trading strategies would apply to the automated generation of any orders, whether ultimately routed to an exchange or otherwise.

8. Where a member engages a third-party to build an algorithmic trading strategy, the associated person directing the third-party in the design and development of the algorithmic trading strategy also would be included within the scope of this proposal.

9. Thus, where a lead developer reports to the chief technology officer (or other person in their supervisory chain), such CTO or other person would not be required to register as a Securities Trader pursuant to this proposal, unless they are involved in the day-to-day supervision of the activities covered by the proposal (*i.e.*, the design, development or significant modification of an algorithmic trading strategy).

10. Associated persons currently holding an Equity Trader registration would be grandfathered into the new Securities Trader registration and not required to be re-tested.

Attachment A

Below is the text of the proposed rule change if amending the current rule text. Proposed new language is underlined; proposed deletions are in brackets. As discussed in the *Notice*, if the Equity Trader registration category and related rule text is replaced by implementation of the Securities Trader registration category, the Securities Trader registration category proposal would be similarly amended to include the additional class of associated persons specified below.

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1000. MEMBERSHIP, REGISTRATION AND QUALIFICATION REQUIREMENTS

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1030. Registration of Representatives

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1032. Categories of Representative Registration

(a) through (e) No Change.

(f) Limited Representative—Equity Trader

(1) Each person associated with a member who is included within the definition of a "representative<u>,</u>" as defined in Rule 1031<u>,</u> must register with the Association as a Limited Representative—Equity Trader if[,]<u>:</u>

(A) with respect to transactions in equity, preferred or convertible debt securities effected otherwise than on a securities exchange, such person is engaged in proprietary trading, the execution of transactions on an agency basis, or the direct supervision of such activities, other than any person associated with a member whose trading activities are conducted principally on behalf of an investment company that is registered with the Commission pursuant to the Investment Company Act of 1940 and that controls, is controlled by or is under common control, with the member[.]<u>; or</u>

<u>(B) such person is (i) primarily responsible for the design, development or significant modification of an algorithmic trading strategy that generates and routes (or sends for routing) orders and order-related messages relating to equity, preferred or convertible debt securities either to an exchange or over the counter; or (ii) responsible for supervising or directing such activities.</u>

(2) No Change.

(g) through (i) No Change.

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