SECURITIES AND EXCHANGE COMMISSION

July 31, 2019

Self-Regulatory Organizations; MIAX Emerald, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend Exchange Rule 518, Complex Orders

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”) and Rule 19b-4 thereunder, notice is hereby given that on July 18, 2019, MIAX Emerald, LLC (“MIAX Emerald” or “Exchange”) filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend Exchange Rule 518, Complex Orders, to amend subsection (d)(7) and to make a minor non-substantive change to correct a typographical error in subsection (f)(1) of Interpretation and Policy .05.

The text of the proposed rule change is available on the Exchange’s website at http://www.miaxoptions.com/rule-filings/emerald at MIAX Emerald’s principal office, and at the Commission’s Public Reference Room.

II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in

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Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend Exchange Rule 518, Complex Orders, to amend subsection (d)(7), Allocation at the Conclusion of a Complex Auction, to adopt a new parenthetical to existing rule text to state that orders and quotes executed in a Complex Auction will be allocated first in price priority based on their original limit price (or protected price, as described in Interpretation and Policy .05., if price protection is engaged).

Currently, subsection (d)(7) of the Rule provides that orders and quotes executed in a Complex Auction will be allocated first in price priority based on their original limit price, and thereafter as follows, and the Rule lists six different scenarios which influence allocation. The Exchange is proposing to adopt the parenthetical, “or protected price if price protection, as described in Interpretation and Policy .05., is engaged” after the term “original limit price” to improve the fairness and consistency of allocations among participants at the end of a Complex Auction.

Under the proposal, allocations will continue to be calculated based on original limit price, with the exception that if price protection is engaged, allocation will then be based on the order’s protected price as opposed to the order’s original limit price. The following examples using the MPC Protection better illustrate this scenario.

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4. The Exchange notes that the System provides a number of price protections as described in Policy .05. of Interpretations and Policies to this Rule. Price protections include a Vertical Spread Variance price protection (.05.(a)); a Calendar Spread Variance price protection.
Example #1A

End of Complex Auction Allocation Using Current Allocation Methodology

icEBBO⁵/dcEBBO⁶ 1.75 x 2.00

cNBBO⁷ 1.85 x 1.95

MPC 0.05

MPC Protection:

cNBB⁸ – MPC (1.85 – 0.05 = 1.80)
cNBO⁹ + MPC (1.95 + 0.05 = 2.00)

Complex Order 1 (CO1) Buy 10 @ 2.00 (Auction on Arrival)¹⁰

Protection (.05.(b)); an Implied Away Best Bid or Offer (“ixABBO”) price protection. The ixABBO price protection feature is a price protection mechanism under which, when in operation as requested by the submitting Member, a buy order will not be executed at a price that is higher than each other single exchange’s best displayed offer for the complex strategy, and under which a sell order will not be executed at a price that is lower than each other single exchange’s best displayed bid for the complex strategy (.05.(d)); and a Complex MIAX Emerald Price Collar (“MPC”) price protection (.05.(f)).

Implied Complex MIAX Emerald Best Bid or offer (“icEBBO”). The icEBBO is a calculation that uses the best price from the Simple Order Book for each component of a complex strategy including displayed and non-displayed trading interest. For stock-option orders, the icEBBO for a complex strategy will be calculated using the best price (whether displayed or non-displayed) on the Simple Order Book in the individual option component(s), and the NBBO in the stock component. See Exchange Rule 518(a)(12).

Displayed Complex MIAX Emerald Best Bid or Offer (“dcEBBO”). The dcEBBO is calculated using the best displayed price for each component of a complex strategy from the Simple Order Book. For stock-option orders, the dcEBBO for a complex strategy will be calculated using the Exchange’s best displayed bid or offer in the individual option component(s) and the NBBO in the stock component. See Exchange Rule 518(a)(8).

The Complex National Best Bid or Offer (“cNBBO”) is calculated using the NBBO for each component of a complex strategy to establish the best net bid and offer for a complex strategy. See Exchange Rule 100.

NBB means the National Best Bid.

NBO means the National Best Offer.

A “Complex Auction-on-Arrival” or “cAOA” order is a complex order designated to be placed into a Complex Auction upon receipt or upon evaluation. Complex orders that are
CO1 marked AOA initiates an auction upon receipt.

Market Maker (“MM”) Complex Order 2 (CO2) Sell 10 @ 1.80 (MPC = 1.80)

MM Complex AOC eQuote 3 (CO3) Sell 10 @ 1.00 (MPC = 1.80)

Unrelated order CO2 and related response CO3 arrive during the auction and join the auction in progress. The Auction concludes with no further interest being received.

Upon conclusion of the Auction CO2 and CO3 are subject to MPC Protection and cannot trade more than 0.05 lower than the Away Best Bid (1.85); meaning that these orders cannot trade lower than 1.80. With allocation based upon the original limit price CO3 trades 10 with CO1 at 1.80 ahead of CO2 since CO3’s original limit price (1.00) was more aggressive than the original limit price of CO2 (1.80). CO2 does not trade and leaves a balance of 10 to sell at 1.80.

cToM 1.75 x 1.80 (10)

Example 1B below illustrates the same scenario but with allocation as proposed by the new rule language.

Example #1B

End of Complex Auction Allocation Using Proposed Allocation Methodology

(Price Protection Engaged)

icEBBO/dcEBBO 1.75 x 2.00

not designated as cAOA will, by default, not initiate a Complex Auction upon arrival, but except as described herein will be eligible to participate in a Complex Auction that is in progress when such complex order arrives or if placed on the Strategy Book may participate in or may initiate a Complex Auction, following evaluation conducted by the System (as described in subparagraph (d) below).[sic] See Exchange Rule 518(b)(2)(i).

The term “Market Makers” refers to “Lead Market Makers”, “Primary Lead Market Makers” and “Registered Market Makers” collectively. See Exchange Rule 100.

A “Complex Auction-or-Cancel eQuote” or “cAOC eQuote,” which is an eQuote submitted by a Market Maker that is used to provide liquidity during a specific Complex Auction with a time in force that corresponds with the duration of the Complex Auction. A cAOC eQuote with a size greater than the aggregate auctioned size (as defined in Rule 518(d)(4)) will be capped for allocation purposes at the aggregate auctioned size. See Exchange Rule 518.02(c)(1).

cToM is the Exchange’s Complex Top of Market data feed.
cNBBO 1.85 x 1.95

MPC 0.05

MPC Protection:

cNBB – MPC (1.85 – 0.05 = 1.80)
cNBO + MPC (1.95 + 0.05 = 2.00)

Complex Order 1 (CO1) Buy 10 @ 2.00 (Auction on Arrival)

CO1 marked AOA initiates an auction upon receipt.

MM Complex Order 2 (CO2) Sell 10 @ 1.80 (MPC = 1.80)

MM Complex AOC eQuote 3 (CO3) Sell 10 @ 1.00 (MPC = 1.80)

Unrelated order CO2 and related response CO3 arrive during the auction and join the auction in progress. The Auction concludes with no further interest being received.

Upon conclusion of the Auction CO2 and CO3 are subject to MPC Protection and cannot trade more than 0.05 lower than the Away Best Bid (1.85); meaning that these orders cannot trade lower than 1.80. With allocation priority based on the protected price CO3 trades a pro-rata share of 5 with CO1 at 1.80 based on its protected price. CO2 also trades a pro-rata share of 5 with CO1 at 1.80 based on its protected price. CO1 is filled, CO2 and CO3 each leave a balance of 5, booked at their protected price of 1.80.

cToM 1.75 x 1.80 (10)

The Exchange believes that using the protected price is more meaningful than using an order’s original limit price in the context of determining trade allocation priority as orders cannot be executed at prices that would violate their protected price. Additionally, changing the allocation priority in this fashion would align allocations for orders with the same protected price, when price protection is engaged, with allocations for orders with the same original limit price, when price protection is not engaged, which can be seen in the examples below.

Example #2A

End of Complex Auction Allocation Using Current Allocation Methodology
icEBBO/dcEBBO 1.75 x 2.00

cNBBO 1.85 x 1.95

MPC 0.05

MPC Protection:

cNBB – MPC (1.85 – 0.05 = 1.80)
cNBO + MPC (1.95 + 0.05 = 2.00)

Complex Order 1 (CO1) Buy 10 @ 2.00 (Auction on Arrival)

CO1 marked AOA initiates an auction upon receipt.

Market Maker (“MM”) Complex Order 2 (CO2) Sell 10 @ 1.90 (MPC = 1.80)
MM Complex AOC eQuote 3 (CO3) Sell 10 @ 1.90 (MPC = 1.80)

Unrelated order CO2 and related response CO3 arrive during the auction and joins the auction in progress. The Auction concludes with no further interest being received.

Upon conclusion of the Auction CO2 and CO3 when subject to MPC Protection cannot trade more than 0.05 lower than the Away Best Bid (1.85); meaning that these orders cannot trade lower than 1.80. However since the limit price of CO2 and CO3 is not through the MPC Protected Price, price protection is not engaged and the trade is based on the best limit price among CO2 and CO3. With allocation based upon the original limit price; CO3 trades a pro-rata share of 5 with CO1 at 1.90 based on its original price. CO2 also trades a pro-rata share of 5 with CO1 at 1.90 based on its original price. CO1 is filled, CO2 and CO3 each leave a balance of 5, booked at their limit price.

Example 2B below illustrates the same scenario but with allocation as proposed by the new rule language.

Example #2B

End of Complex Auction Allocation Using Proposed Allocation Methodology

(Price Protection Not Engaged)

icMBBO/dcMBBO 1.75 x 2.00

cNBBO 1.85 x 1.95

MPC 0.05
MPC Protection = cNBB – MPC (1.85 – 0.05 = 1.80)

Complex Order 1 (CO1) Buy 10 @ 2.00 (Auction on Arrival)

CO1 marked AOA initiates an auction upon receipt.

Market Maker ("MM") Complex Order 2 (CO2) Sell 10 @ 1.90 (MPC = 1.80)

MM Complex AOC eQuote 3 (CO3) Sell 10 @ 1.90 (MPC = 1.80)

Unrelated order CO2 and related response CO3 arrive during the auction and joins the auction in progress. The Auction concludes with no further interest being received.

Upon conclusion of the Auction CO2 and CO3 when subject to MPC Protection cannot trade more than 0.05 lower than the Away Best Bid (1.85); meaning that these orders cannot trade lower than 1.80. However since the limit price of CO2 and CO3 is not through the MPC Protected Price, price protection is not engaged and the trade is based on the best limit price among CO2 and CO3. With allocation based upon the original limit price; CO3 trades a pro-rata share of 5 with CO1 at 1.90 based on its original price. CO2 also trades a pro-rata share of 5 with CO1 at 1.90 based on its original price. CO1 is filled, CO2 and CO3 each leave a balance of 5, booked at their limit price.

There is no difference in the allocation results under the proposed allocation algorithm or the current allocation algorithm for orders with identical original limit prices when price protection is not engaged. Additionally, as demonstrated in Example 3A and 3B below, there is no difference in the allocation results under the proposed allocation algorithm or the current allocation algorithm for orders with differing original limit prices when price protection is not engaged.

Example #3A

End of Complex Auction Allocation Using Current Allocation Methodology

icEBBO/dcEBBO 1.75 x 2.00

cNBBO 1.85 x 1.95

MPC 0.05

MPC Protection:
cNBB – MPC (1.85 – 0.05 = 1.80)
cNBO + MPC (1.95 + 0.05 = 2.00)

Complex Order 1 (CO1) Buy 10 @ 2.00 (Auction on Arrival)

CO1 marked AOA initiates an auction upon receipt.

Market Maker (“MM”) Complex Order 2 (CO2) Sell 10 @ 1.95 (MPC = 1.80)

MM Complex AOC eQuote 3 (CO3) Sell 10 @ 1.85 (MPC = 1.80)

Unrelated order CO2 and related response CO3 arrive during the auction and join the auction in progress. The Auction concludes with no further interest being received.

Upon conclusion of the Auction CO2 and CO3 when subject to MPC Protection cannot trade more than 0.05 lower than the Away Best Bid (1.85); meaning that these orders cannot trade lower than 1.80. However since the limit price of CO2 and CO3 is not through the MPC Protected Price, price protection is not engaged. With allocation based upon the original limit price; CO3 trades 10 with CO1 at 1.90 ahead of CO2 since its original limit price (1.85) was more aggressive than the original limit price of CO2 (1.95). CO2 does not trade and leaves a balance of 10 to sell at 1.95.

**Example #3B**

*End of Complex Auction Allocation Using Proposed Allocation Methodology (Price Protection Not Engaged)*

icMBBO/dcMBBO 1.75 x 2.00
cNBBO 1.85 x 1.95
MPC 0.05

MPC Protection = cNBB – MPC (1.85 – 0.05 = 1.80)

Complex Order 1 (CO1) Buy 10 @ 2.00 (Auction on Arrival)

CO1 marked AOA initiates an auction upon receipt.

Market Maker (“MM”) Complex Order 2 (CO2) Sell 10 @ 1.95 (MPC = 1.80)

MM Complex AOC eQuote 3 (CO3) Sell 10 @ 1.85 (MPC = 1.80)
Unrelated order CO2 and related response CO3 arrive during the auction and joins the auction in progress. The Auction concludes with no further interest being received.

Upon conclusion of the Auction CO2 and CO3 when subject to MPC Protection cannot trade more than 0.05 lower than the Away Best Bid; meaning that these orders cannot trade lower than 1.80. However since the limit price of CO2 and CO3 is not through the MPC Protected Price, price protection is not engaged. Allocation remains based upon original limit price as price protection is not engaged. CO3 trades 10 with CO1 at 1.90 ahead of CO2 since its original limit price (1.85) was more aggressive than the original limit price of CO2 (1.95). CO2 does not trade and leaves a balance of 10 to sell at 1.95.

As illustrated by the examples above, there is no difference in allocations under the proposal when orders have the same, or different, original limit prices when price protection is not engaged (Examples 2 and 3 respectively). Under the current rule there is a difference in allocation when orders have the same protected price but different original limit prices, as illustrated in Example 1. Under the Exchange’s proposal, using the order’s protected price, when price protection is engaged, to determine allocation, will provide the same allocation result as when orders have the same original limit price, but when price protection is not engaged (as demonstrated in Example 2). The Exchange believes that allocating interest at the conclusion of a Complex Auction based upon an order’s protected price, when price protection is engaged, as opposed to its original limit price, provides a consistent allocation methodology when orders have the same price (either original limit price when price protection is not engaged, or protected price when price protection is engaged).

Additionally, the Exchange proposes to amend section (f) of Interpretation and Policy .05 to add an opening quotation to the term eQuotes in subsection (1), which states, [a]ll complex orders on the Exchange, together with cAOC eQuotes and cIOC eQuotes\(^\text{14}\) (as defined in

\(^{14}\)A “Complex Immediate-or-Cancel eQuote” or “cIOC eQuote,” which is a complex eQuote with a time-in-force of IOC that may be matched with another complex quote or complex order for an execution to occur in whole or in part upon receipt into the System. cIOC eQuotes will not: (i) be executed against individual orders and quotes resting on the
Interpretations and Policies: 02.(c)(1) and (2) of this Rule) (collectively, “eQuotes”), are subject to the MPC Price Protection feature. This is non-substantive change to make a typographical correction to the rule text.

2. **Statutory Basis**

MIAX Emerald believes that its proposed rule change is consistent with Section 6(b) of the Act\(^{15}\) in general, and furthers the objectives of Section 6(b)(5) of the Act\(^{16}\) in particular, in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, to remove impediments to and perfect the mechanisms of a free and open market and a national market system and, in general, to protect investors and the public interest.

The Exchange believes that determining priority for allocating interest at the conclusion of a Complex Auction based on an order’s protected price, when price protection is engaged, removes impediments to and perfects the mechanisms of a free and open market and a national market system and, in general, protects investors and the public interest by providing a consistent allocation methodology. Basing trade allocation priority on an order’s protected price provides for a more equitable allocation of interest at the conclusion of a Complex Auction versus using an order’s original limit price to determine allocation priority. An order’s original limit price is not relevant for determining allocation as the order cannot trade through its protected price.

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Therefore, the Exchange believes that when price protection is engaged, using the protected price as the basis for allocation priority at the conclusion of a Complex Auction is more appropriate.

As demonstrated in Example 1A, under the current rule an order with a limit price that is through its protected price supersedes an order with a limit price equal to its protected price. In Example 1A, the trade price is equal to the protected price, however the order with a more aggressive original limit price receives the first allocation. In Example 1A, the order’s $1.00 original limit price to sell is illusory in the sense that the order can never be executed below its protected price of $1.80 due to price protection being engaged. With two orders that can be executed at $1.80 the Exchange believes that basing allocation on the protected price promotes just and equitable principles of trade, as both orders receive an allocation. This aligns to the allocation that results when two orders can be executed at their original limit price without price protection being engaged, and provides consistency in the allocation process used on the Exchange, and prevents unfair allocations from occurring, which promotes just and equitable principles of trade.

The Exchange believes its proposal to make a non-substantive change to correct a typographical error protects investors and the public interest by providing accuracy in the Exchange’s rules. Clarity and precision in the Exchange’s rules helps avoid the potential for confusion which benefits investors and the public.

B. Self-Regulatory Organization’s Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

The Exchange’s proposal will not impose any burden on inter-market competition as the proposal will only affect trade allocations performed at the conclusion of a Complex Auction on the Exchange, when price protection is engaged.
The Exchange does not believe the proposed rule change will impose any burden on intra-market competition as the rules of the Exchange are applicable to all Members equally, and will equally impact those Members who participate in Complex Auctions.

C. Self-Regulatory Organization’s Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days from the date on which it was filed, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act and Rule 19b-4(f)(6) thereunder.

A proposed rule change filed pursuant to Rule 19b-4(f)(6) under the Act normally does not become operative for 30 days after the date of its filing. However, Rule 19b-4(f)(6)(iii) permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The Exchange has requested that the Commission waive the 30-day operative delay so that the proposed rule change may become operative upon

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17 The term “Member” means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed “members” under the Exchange Act. See Exchange Rule 100.


19 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6)(iii) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of the proposed rule change, at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.


filing. As discussed above, the Exchange believes that using an order’s protected price when price protection is engaged, rather than an order’s original limit price, is appropriate for determining allocation priority at the conclusion of a Complex Auction because an order cannot be executed at a price that would violate its protected price. Thus, an order’s original limit price is not relevant for determining allocation priority when price protection is engaged, and the Exchange believes that using an order’s protected price to determine auction allocations when price protection is engaged will prevent unfair Complex Auction allocations. The Commission believes that determining Complex Auction allocations based on an order’s protected price when price protection is engaged, rather than on the order’s original limit price, is appropriate because an order will never execute at a price that violates its protected price. The Commission believes that using an order’s protected price when price protection is engaged will help to assure that orders are allocated fairly at the conclusion of a Complex Auction. Therefore, the Commission believes that waiver of the 30-day operative delay is consistent with the protection of investors and the public interest. Accordingly, the Commission hereby waives the operative delay and designates the proposed rule change operative upon filing.\textsuperscript{22}

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule change should be approved or disapproved.

\textsuperscript{22} For purposes only of waiving the 30-day operative delay, the Commission also has considered the proposed rule’s impact on efficiency, competition, and capital formation. \textit{See} 15 U.S.C. 78c(f).
IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission’s Internet comment form (http://www.sec.gov/rules/sro.shtml); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-EMERALD-2019-27 on the subject line.

Paper comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-EMERALD-2019-27. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission’s Internet website (http://www.sec.gov/rules/sro.shtml). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission’s Public Reference Room, 100 F Street, NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change.
Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-EMERALD-2019-27, and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.\textsuperscript{23}

Jill M. Peterson  
Assistant Secretary

\textsuperscript{23} 17 CFR 200.30-3(a)(12).