



SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-91282; File No. SR-PEARL-2021-05]

Self-Regulatory Organizations; MIAX PEARL, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend Exchange Rule 519C, Mass Cancellation of Trading Interest

March 9, 2021.

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)¹ and Rule 19b-4 thereunder,² notice is hereby given that on February 25, 2021, MIAX PEARL, LLC (“MIAX PEARL” or the “Exchange”) filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I, II, and III 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 proposed rule change to amend Exchange Rule 519C.

The text of the proposed rule change is available on the Exchange’s website at <http://www.miaxoptions.com/rule-filings/pearl> at MIAX PEARL’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

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

in 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 Rule 519C, Mass Cancellation of Trading Interest, to adopt new paragraph (d) titled, Detection of Unresponsive System Interface, which will state that a Member³ may request that the Help Desk⁴ enable the cancel on disconnect feature for a FIX session on their behalf. When the System⁵ detects an unresponsive FIX Interface⁶ due to a System issue, the System will cancel all open orders for that Interface session.

MIAX PEARL Members may connect to the System using the MEO Interface⁷ and/or the FIX Interface. These two connection protocols are not mutually exclusive and Members, specifically Market Makers (“MMs”)⁸ on the Exchange, primarily use the MEO Interface for

³ The term “Member” means an individual or organization that is registered with the Exchange pursuant to Chapter II of MIAX PEARL Rules for purposes of trading on the Exchange as an “Electronic Exchange Member” or “Market Maker.” Members are deemed “members” under the Exchange Act. See Exchange Rule 100.

⁴ The term “Help Desk” means the Exchange’s control room consisting of Exchange staff authorized to make certain trading determinations on behalf of the Exchange. The Help Desk shall report to and be supervised by a senior executive officer of the Exchange. See Exchange Rule 100.

⁵ The term “System” means the automated trading system used by the Exchange for the trading of securities. See Exchange Rule 100.

⁶ The term “FIX Interface” means the Financial Information Exchange interface used for submitting certain order types (as set forth in MIAX PEARL Rule 516) to the MIAX PEARL System. See Exchange Rule 100.

⁷ The term “MEO Interface” means a binary order interface used for submitting certain order types (as set forth in MIAX PEARL Rule 516) to the MIAX PEARL System. See Exchange Rule 100.

⁸ The term “Market Maker” or “MM” means a Member registered with the Exchange for the purpose of making markets in options contracts traded on the Exchange and that is vested with the rights and responsibilities specified in Chapter VI of MIAX PEARL Rules. See Exchange Rule 100.

providing liquidity to the Exchange via their Market Making activities, while Electronic Exchange Members (“EEMs”)⁹ primarily use the FIX Interface for submitting orders.¹⁰

These Interface ports provide the mechanism by which Members maintain a connection to the Exchange and through which a Member communicates its quotes and/or orders to the System. Market Makers may submit quotes¹¹ to the Exchange from one or more MEO ports. Similarly, Members may submit orders to the Exchange from one or more FIX ports.

MEO Connections

Members connect to their assigned MEO port using the MIAX Session Management Protocol (“SesM”). The SesM protocol uses Heartbeat¹² packets to detect link failures between the Member and the Exchange. The SesM protocol requires that the Exchange must send a Heartbeat packet anytime more than one (1) second has passed since the Exchange last sent any data. Further, the SesM protocol requires that the Member must send a Heartbeat packet anytime more than one (1) second has passed since the Member last sent any data. If a certain number of consecutive Heartbeats are missed,¹³ or if the Member fails to send data or Heartbeats within “xx” period of time (“Heartbeat Interval”), the System will automatically close the connection

⁹ The term “Electronic Exchange Member” or “EEM” means the holder of a Trading Permit who is a Member representing as agent Public Customer Orders or Non-Customer Orders on the Exchange and those non-Market Maker Members conducting proprietary trading. Electronic Exchange Members are deemed “members” under the Exchange Act. See Exchange Rule 100.

¹⁰ The term “order” means a firm commitment to buy or sell option contracts. See Exchange Rule 100.

¹¹ The term “quote” or “quotation” means a bid or offer entered by a Market Maker as a firm order that updates the Market Maker’s previous bid or offer, if any. When the term order is used in these Rules and a bid or offer is entered by the Market Maker in the option series to which such Market Maker is registered, such order shall, as applicable, constitute a quote or quotation for purposes of these Rules. See Exchange Rule 100.

¹² A Heartbeat message is a communication which acts as a virtual pulse between the Exchange System and the Member’s system. The Heartbeat message sent by the Member and received by the Exchange allows the Exchange to continually monitor its connection with the Member.

¹³ The Exchange notes that the current setting is three (3) Heartbeats.

and listen for the Member to establish a new connection.¹⁴ The default Heartbeat Interval setting is determined by the Exchange and configured directly into the System.¹⁵ Any change to these settings is communicated to Members accordingly.

The Exchange offers Members three different types of MEO port connections. A Full Service Port Bulk (“FSP_B”) which supports all message types and binary bulk order entry, a Full Service Port Single (“FSP_S”) which supports all MEO input message types and binary order entry on a single order by order basis (no bulk orders), and a Limited Service Port (“LSP”), which supports all MEO input message types, but does not support bulk order entry and only supports IOC/ISO order types. All Ports can have “cancel on disconnect” enabled.

By default, cancel on disconnect functionality will be triggered upon establishing a loss of communication to the Member’s last MEO Full Service Port connection to a matching engine. When cancel on disconnect is triggered, the System will close the session and remove the Member’s quotes and orders from the Exchange, for the impacted matching engine only.¹⁶ MEO cancel on disconnect functionality is not changing under this proposal.

FIX Connections

Members connect to their assigned FIX port using the MIAX PEARL FIX Orders Interface (“FOI”) which is a flexible interface that uses the FIX protocol for both application and session level messages. As per the FIX protocol, a connection is established by the Member submitting a logon message to the Exchange. This logon message establishes the Heartbeat

¹⁴ See TCP Session Management (SesM), Protocol Specification, (8/13/2015), Version 1.1e, available at https://www.miaxoptions.com/sites/default/files/page-files/MIAX_PEARL_TcpSessionMgmt_SesM_v1_1e_0.pdf.

¹⁵ The Exchange notes that the current setting is three (3) seconds.

¹⁶ See MIAX Express Orders Binary Orders for Trading Options, MEO Interface Specification, (8/12/2020), Version 2.0b, available at https://www.miaxoptions.com/sites/default/files/page-files/MIAX_Express_Orders_MEO_v2.0b.pdf. See also Exchange Rule 519C(c)(1).

interval that will be used by the session. This value must be greater than zero seconds and the same value must be used by both the Member and the Exchange.

Within the logon message a Member can enable “Auto Cancel on Disconnect” for all orders sent through a session by setting a flag in the logon message. This would result in all eligible orders¹⁷ submitted through the FIX connection to be canceled upon a loss of communication. Alternatively, a Member can identify individual orders on a per order basis that are to be considered for Auto Cancel on Disconnect treatment.

Upon missing a single Heartbeat, FOI will send a *Test Request* message¹⁸ to the Member to check the status of the connection. Upon missing a certain number of Heartbeats,¹⁹ FOI will send a logout message and terminate the connection. When FOI detects a disconnection for any reason it will trigger the Auto Cancel on Disconnect process, whereby, if enabled, FOI will cancel all eligible orders. If Auto Cancel on Disconnect is not enabled for the session or for any orders, FOI will simply disconnect the FIX session and not cancel any orders. Once disconnected, a FIX user would have to commence a new session to add, modify, or cancel its orders. After a disconnect, FOI will not accept connections from the Member for a pre-configured period of time.²⁰ This allows the Exchange to cancel orders without the Member being able to reconnect and attempt to interact with an order in the process of being canceled. Any change to this setting will be communicated to Members accordingly.

¹⁷ Good ‘Til Cancelled (“GTC”) orders are not eligible for Auto Cancel on Disconnect. A GTC Order is an order to buy or sell which remains in effect until it is either executed, cancelled or the underlying option expires. See Exchange Rule 516(i).

¹⁸ The test request message is a FIX Protocol message that forces a heartbeat from the opposing application. The test request message checks sequence numbers or verifies communication line status. The opposite application responds to the Test Request with a Heartbeat containing the Test Request ID. Financial Information Exchange Protocol (FIX), Version 4.2 with errata. May 1, 2001.

¹⁹ The Exchange notes that the current setting is two (2) Heartbeats.

²⁰ The Exchange notes that the current setting is five (5) seconds. See also Exchange Rule 519C(c)(2).

The Auto Cancel on Disconnect functionality is designed to react to external connection loss scenarios only. Therefore, it does not cancel orders in the event of a FOI Interface becoming unresponsive as a result of a MIAX PEARL System issue. The execution reports resulting from cancels or trades during the period a Member is disconnected can be received upon a subsequent reconnection by the Member on the same trading day.²¹

The Exchange now proposes an additional risk protection feature designed to cancel orders in the event of a MIAX PEARL System issue that causes the FIX Order Interface to become unresponsive. The Exchange proposes to allow a Member to request that the Help Desk enable the cancel on disconnect feature for FIX sessions on their behalf. When the System detects an unresponsive FIX Order Interface due to a MIAX PEARL System issue, the System will cancel all open orders, including GTC orders, for that specific session. After initially requesting that the Help Desk enable the cancel on disconnect feature on behalf of the Member, the setting will remain enabled until such time as the Member requests that it be disabled.

While GTC orders by definition are designed to remain on the Exchange's Book²² until such time as they are executed or canceled, some Members have expressed a preference to have any order type, including Good 'til Cancelled, removed from the Exchange's Book if the Member is unable to interact with their order due to a technical issue. Removing a Member's order in the event of a technical issue reduces the chance of an undesirable execution occurring and gives the Member flexibility and control over their orders.

Additionally, the Exchange proposes to make a minor non-substantive edit to subparagraph (c)(2) to replace the term "Session" (with an uppercase "S") with the term "session" (with a lowercase "s"). The term "FIX Session" is not a defined term in the

²¹ See Options Order Management using FIX Protocol, FIX Interface Specification, (6/10/2018), Version 1.1, available at https://www.miaxoptions.com/sites/default/files/page-files/MIAX_PEARL_FIX_Order_Interface_FOI_v1.1a.pdf.

²² The term "Book" means the electronic book of buy and sell orders and quotes maintained by the System. See Exchange Rule 100.

Exchange's rulebook and is therefore currently erroneously identified as one. This proposed change improves the clarity and precision of the Exchange's rulebook.

2. Statutory Basis

The Exchange believes that its proposed rule change is consistent with Section 6(b) of the Act²³ in general, and furthers the objectives of Section 6(b)(5) of the Act²⁴ 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 regulating, clearing, settling, processing information with respect to, and 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 proposed rule will remove impediments to and perfect the mechanism of a free and open market and a national market system and protect investors and the public interest by providing Members with a mechanism by which to remove all open orders in the System in the event one of their FIX Order Interfaces becomes unresponsive due to a MIAX PEARL System issue.

Offering this type of order cancellation functionality to Members is consistent with the Act because it enables Members to avoid risks associated with inadvertent executions in the event the Member is unable to interact with its orders on the Exchange. The proposed rule change is not unfairly discriminatory among Members, as it is available equally to all Members of the Exchange that use the FIX Protocol to submit orders to the Exchange.

The Exchange's proposal is consistent with the Act because it adds another risk protection tool for Members to employ that may mitigate the risk of potential erroneous or unintended executions associated with an unresponsive FIX Order Interface which protects investors and the public interest.

²³ 15 U.S.C. 78f(b).

²⁴ 15 U.S.C. 78f(b)(5).

The Exchange believes the proposed change to correct a typographical error, promotes just and equitable principles of trade, removes impediments to and perfects the mechanism of a free and open market and a national market system as it improves the accuracy and specificity of the Exchange's Rules. The Exchange believes that the proposed change will provide greater clarity to Members and the public regarding the Exchange's Rules, and it is in the public interest for rules to be accurate and concise so as to eliminate the potential for confusion.

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 that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange believes the proposed rule change will not impose any burden on intra-market competition because every Member of the Exchange has the opportunity to benefit from the optional functionality described in the proposed rule.

Offering optional functionality to cancel all open orders, including GTC orders, in the System upon detection of an unresponsive FOI connection due to a MIAX PEARL System issue, does not create an undue burden on intra-market competition as Members may wish to have all open orders canceled to reduce the possibility of an undesired execution occurring.

The Exchange does not believe the proposed rule change will impose any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act. At least one other option exchange similarly offers a variation of cancel functionality to their users to protect against unintended or unwanted executions.²⁵

For the reasons stated, 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.

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

²⁵ See Cboe Exchange Rule 5.34(c)(6) and (7).

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 after the date of the filing, or such shorter time as the Commission may designate, it has become effective pursuant to Section 19(b)(3)(A) of the Act²⁶ and Rule 19b-4(f)(6)²⁷ thereunder.

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 should be approved or disapproved.

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-PEARL-2021-05 on the subject line.

²⁶ 15 U.S.C. 78s(b)(3)(A).

²⁷ 17 CFR 240.19b-4(f)(6). In addition, Rule 19b-4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file 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.

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-PEARL-2021-05. 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-PEARL-2021-05 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.²⁸

J. Matthew DeLesDernier,

Assistant Secretary.

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²⁸ 17 CFR 200.30-3(a)(12).