SECURITIES AND EXCHANGE COMMISSION (Release No. 34-76489; File No. SR-CBOE-2015-103)

November 20, 2015

Self-Regulatory Organizations; Chicago Board Options Exchange, Incorporated; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change Relating to the Technical Disconnect Mechanism

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the "Act"),¹ and Rule 19b-4 thereunder,² notice is hereby given that on November 9, 2015, Chicago Board Options Exchange, Incorporated (the "Exchange" or "CBOE") filed with the Securities and Exchange Commission (the "Commission") the 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. <u>Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed</u> <u>Rule Change</u>

The Exchange proposes to amend Rule 6.23C related to the Exchange's Technical Disconnect Mechanism. The text of the proposed rule change is provided below.

(additions are italicized; deletions are [bracketed])

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Chicago Board Options Exchange, Incorporated Rules

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Rule 6.23C Technical Disconnect

(a) When a CBOE Application Server ("CAS") loses communication with a Client Application such that a CAS does not receive an appropriate response to a Heartbeat Request within "x" period of time, the Technical Disconnect Mechanism will automatically logoff the Trading Permit Holder's affected Client Application and[, if applicable, will] automatically cancel all the

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

Trading Permit Holder's Market-Maker quotes, if applicable, and open orders with a time-in-force of "day" ("day orders"), if the Trading Permit Holder enables that optional service, posted through the affected Client Application. The following describes how the Technical Disconnect Mechanism works for each of the Exchange's application programming interfaces ("APIs"):

- [(i) CBOE Market Interface ("CMi") API. A CAS shall generate a Heartbeat Request to a Client Application every "n" period of time. The value of "n" shall be set by the Exchange at two (2) seconds. The value of "x" shall be set either by the Exchange or a Trading Permit Holder, depending upon the version of CMi being used. If the value of "x" is determined by the Exchange, "x" shall be set at twenty (20) seconds. If the value of "x" is determined by a Trading Permit Holder, "x" shall in no event be less than three (3) seconds or exceed twenty (20) seconds.]
- (i[i]) CBOE Market Interface 2.0 ("CMi 2") API. A CAS shall generate a Heartbeat Request to a Client Application (i) after the CAS does not receive any messages from a particular Client Application for "n" period of time or (ii) after every "n" period of time. A Trading Permit Holder shall determine the value of "n." In no event shall "n" be less than three (3) seconds or exceed twenty (20) seconds. If a CAS generates a Heartbeat Request only after it does not receive any messages from a particular Client Application for "n" period of time, the value of "x" shall be set at a half (.5) second. If a CAS generates a Heartbeat Request every "n" period of time, the value of "x" shall be equal to the value of "n."
- (ii[i]) Financial Information eXchange ("FIX") Protocol API. A CAS shall generate a Heartbeat Message to a Client Application after the CAS does not receive any messages from a particular Client Application for "n" period of time. If the CAS does not receive a response to the Heartbeat Message from the Client Application for "n" period of time, the CAS shall generate a Heartbeat Request to the Client Application. A Trading Permit Holder shall determine the value of "n" at logon. In no event shall "n" be less than five (5) seconds. The value of "x" shall be equal to the value of "n."
- (b) The Technical Disconnect Mechanism is enabled for all Trading Permit Holders and may not be disabled by Trading Permit Holders, except the automatic cancellation of a Trading Permit Holder's day orders is an optional service that the Trading Permit Holder may enable or disable through the API.
- (c) The trigger of the Technical Disconnect Mechanism is event- and Client Application-specific. The automatic cancellation of a Market-Maker's quotes (if applicable) or a Trading Permit Holder's day orders (if enabled by the Trading Permit Holder) entered into a CAS via a particular Client Application will neither impact nor determine the treatment of the quotes of the same or other Market-Makers or orders of the same Trading Permit Holder entered into the CAS via a separate and distinct Client Application. Except for day orders the Technical Disconnect Mechanism automatically cancels if a Trading Permit Holder enables that optional service, [T]the Technical Disconnect Mechanism will not impact or determine the treatment of orders a Trading Permit Holder previously entered into the CAS.

...Interpretations and Policies:

.01 No change.

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The text of the proposed rule change is also available on the Exchange's website (http://www.cboe.com/AboutCBOE/CBOELegalRegulatoryHome.aspx), at the Exchange's Office of the Secretary, and at the Commission's Public Reference Room.

II. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change</u>

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 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. <u>Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis</u> for, the Proposed Rule Change

1. <u>Purpose</u>

The Exchange proposes to amend Rule 6.23C related to the Exchange's Technical Disconnect Mechanism. Rule 6.23C(a) provides that when a CBOE Application Server ("CAS")³ loses communication with a Client Application⁴ such that a CAS does not receive an

³ CBOE currently has numerous CASs serving TPHs.

For relevant purposes, a "Client Application" is the system component, such as a CBOE-supported workstation or a TPH's custom trading application, through which a TPH communicates its quotes and/or orders to a CAS. Messages are passed between a Client Application and a CAS. A Market-Maker may send quotes to the Exchange from one or more Client Applications, and a TPH may send orders to the Exchange from one or more Client Applications.

appropriate response to a Heartbeat Request⁵ within "x" period of time, the Technical Disconnect Mechanism will automatically logoff the Trading Permit Holder's ("TPH") affected Client Application. If that occurs, the current rule provides that the Technical Disconnect Mechanism, if applicable, will automatically cancel all the TPH's Market-Maker quotes posted through the affected Client Application.⁶ The Technical Disconnect Mechanism is intended to help mitigate the potential risks associated with a loss of communication with a Client Application, such as erroneous or unintended executions for stale quotes that are resting in the CBOE book. This mechanism serves to assist a TPH when a technical or system issue occurs, as well as assist the Exchange in maintaining a fair and orderly market.

The proposed rule change provides TPHs with an optional service that, if enabled by a TPH, will cause the Technical Disconnect Mechanism to also automatically cancel all the TPH's open orders with a time-in-force of "day" ("day orders") posted through the affected Client Application if the CAS loses communication with the Client Application. The proposed rule change amends Rule 6.23C(b) to provide that the TPH may enable or disable this optional service through its application programming interface ("API") (all other aspects of the Technical Disconnect Mechanism continue to otherwise be enabled for all TPHs and may not be disabled by TPHs). The proposed rule change makes corresponding changes to Rule 6.23C(c) that

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A "Heartbeat Request" refers to a message from a CAS to a Client Application to check connectivity and which requires a response from the Client Application in order to avoid logoff. The Heartbeat Request acts as a virtual pulse between a CAS and a Client Application and allows a CAS to continually monitor its connection with a Client Application. Failure to receive a response to a Heartbeat Request within the Heartbeat Response Time is indicative of a technical or system issue.

See Rule 6.23C and Securities Exchange Act Release No. 34-70039 (July 25, 2013), 78 FR 46395 (July 31, 2013) (SR-CBOE-2013-071) for further information regarding the Technical Disconnect Mechanism.

CBOE currently makes available two APIs: CBOE Market Interface 2.0 ("CMi 2") and Financial Information eXchange Protocol ("FIX"). The proposed rule change deletes

indicate the Technical Disconnect Mechanism will automatically cancel a TPH's day orders (in addition to a Market-Maker's quotes), if the TPH enables the proposed optional service.⁸ As is the case in the event the Technical Disconnect Mechanism automatically logs a TPH off and cancels its Market-Maker quotes (if applicable), if a TPH enables this proposed optional service, and the Technical Disconnect Mechanism automatically logs a TPH off and cancels the TPH's day orders due to lost communication with TPH's Client Application, the TPH may send messages to the CAS to enter new orders once it reestablishes connectivity to the Client Application. In addition, any nonconnectivity will continue to be event- and Client Applicationspecific. In other words, any cancellation of day orders entered into a CAS via a particular Client Application will neither impact nor determine the treatment of the quotes of the same TPH entered into a CAS via a separate and distinct Client Application. The Technical Disconnect Mechanism will not impact or determine the treatment of orders previously entered into a CAS if the TPH does not enable this optional service, nor will it impact or determine the treatment of non-day orders previously entered into a CAS by the TPH. The Exchange notes use of this service will be voluntary and within the sole discretion of each TPH.

The proposed optional service is an additional preventative risk control measure that CBOE is making available to TPHs. It is intended to help further mitigate the potential risks associated with a loss of communication with a Client Application. While orders may be static in nature and rest in the book, TPHs often enter day orders more frequently in response to then-

Rule 6.23A(a)(i) [sic] regarding the CBOE Market Interface ("CMi") API, as that has been phased out and is no longer available to TPHs. The proposed rule change also renumbers subparagraphs (ii) and (iii) to become subparagraphs (i) and (ii), respectively.

In addition, the proposed rule change makes nonsubstantive changes to Rule 6.23C(a), including moving the phrase "if applicable" to ensure that phrase clearly applies to the cancellation of a Market-Maker's quotes (as that functionality only applies to TPHs that are Market-Makers).

current market conditions. Therefore, if a TPH's Client Application is disconnected for any period of time, it is possible that market conditions upon which it based its day orders may change during that time and make those orders stale. Consequently, any resulting executions of those orders may be erroneous or unintended. The Exchange believes it is appropriate to limit this optional service to day orders and exclude good-til-cancelled orders, 9 as those orders are intended to rest in the book for a period of time and thus have lower risk of erroneous or unintended executions during and after the Technical Disconnect Mechanism logs off a TPH.

2. <u>Statutory Basis</u>

The Exchange believes the proposed rule change is consistent with the Act and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.¹⁰ Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)¹¹ requirements that the rules of an exchange be 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 mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)¹² requirement

⁹ Currently, the Exchange offers two time-in-force order types: day and good-til-cancelled. The proposed optional service will apply to orders that include the "day" marking.

¹⁰ 15 U.S.C. 78f(b).

¹¹ 15 U.S.C. 78f(b)(5).

^{12 &}lt;u>Id.</u>

that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In particular, the proposed rule change helps maintain a fair and orderly market and protects investors and the public interest. The Technical Disconnect Mechanism is a valuable tool that is designed to help maintain a fair and orderly market. The Exchange believes that providing TPHs with the option to have the Technical Disconnect Mechanism cancel its day orders, in addition to Market-Maker quotes (if applicable), further mitigates the potential risks associated with a loss in communication with a Client Application. The Exchange believes it is reasonable to offer to cancel only day orders. Unlike non-day orders, day orders are more likely to be reflective of then-current market conditions and are intended to rest in the book for a limited period of time. As a result, in the event that a CAS loses connectivity with a Client Application, execution of day orders during that time are more likely to result in erroneous or unintended executions, while risk of such executions is lower for non-day orders. The proposed optional service protects TPHs from these potential erroneous or unintended executions, as well as protects investors and the efficiency and fairness of the markets in general. The Exchange believes this functionality enhances the overall market quality for options traded on CBOE. The Exchange notes that other exchanges offer their members similar services that cancels a member's orders if it disconnects from the exchange.¹³

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See, e.g., BZX Exchange US Equities FIX Specification, Version 1.33.5 (October 8, 2014), available at

http://www.batstrading.com/resources/membership/BATS_FIX_Specification.pdf (see Section 5.1 for description of automatic cancel on disconnection or malfunction); MIAX Options Market Protections Handout (March 2015), available at

https://www.miaxoptions.com/sites/default/files/MIAX_Market_Protections_March_201 5.pdf (see page 5 for description of auto cancel on disconnect order protection); and NYSE UTPDirect (CGC Binary) API Specification, V1.4 (February 26, 2015), available at

The Exchange also believes that the proposed rule change is designed to not permit unfair discrimination among market participants. Use of the optional service will be voluntary and within the sole discretion of each TPH. The proposed optional service is available to all TPHs and will apply to the same order types of all TPHs.

The proposed rule change to delete language related to CMi benefits investors, as that API is no longer available to TPHs and thus deletion of that language helps eliminate confusion. CMi2 and FIX continue to be available to TPHs.

B. <u>Self-Regulatory Organization's Statement on Burden on Competition</u>

CBOE 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.

Specifically, the Exchange does not believe the proposed rule change will cause any burden on intramarket competition because the optional service will be available to all TPHs. Use of this optional service will be within the sole discretion of each TPH. The proposed rule change will have no impact on TPHs that do not enable the proposed optional service. For TPHs that elect to enable the proposed optional service, the only impact on those TPHs will be cancellation of day orders (in addition to Market-Maker quotes) upon loss of connectivity. The Technical Disconnect Mechanism will otherwise continue to function in the same manner as it does today. Further, the Exchange does not believe that such change will impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the purposes of the Act. The proposed rule change modifies a mechanism available on CBOE's system and applies only to orders entered on CBOE. The Exchange notes that, should the proposed change make CBOE a more attractive place for trading, market participants trading on other exchanges are welcome to

https://www.nyse.com/publicdocs/nyse/markets/nyse/NYSEUTPDirect_Specification.pdf (see Section 3.8 for description of cancel on disconnect service).

become TPHs and trade at CBOE if they determine that this proposed change has made CBOE more attractive or favorable. Additionally, as discussed above, other options exchanges offer their members similar functionality. 14

The proposed rule change to delete language regarding CMi has no impact on competition, as it merely deletes a provision regarding an API that is no longer used by, and is no longer available to, TPHs. CMi 2 ultimately replaced CMi, and FIX continues to be available to TPHs as well.

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

The Exchange neither solicited nor received comments on the proposed rule change.

Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act¹⁵ and paragraph (f) of Rule 19b-4¹⁶ 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 will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

III.

Id.

¹⁵ 15 U.S.C. 78s(b)(3)(A).

¹⁶ 17 CFR 240.19b-4(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 <u>rule-comments@sec.gov</u>. <u>Please include File Number SR-CBOE-</u> 2015-103 on the subject line.

Paper comments:

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

All submissions should refer to File Number SR-CBOE-2015-103. 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, D.C. 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; the

Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-CBOE-2015-103 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. 17

Robert W. Errett Deputy Secretary

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¹⁷ 17 CFR 200.30-3(a)(12).