

EXHIBIT 5

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Rules of Nasdaq BX

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Chapter VI Trading Systems

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Sec. 6 [Acceptance of Quotes and Orders] Entry and Display of Quotes

(a) All bids or offers made and accepted on BX Options in accordance with the BX Options Rules shall constitute binding contracts, subject to applicable requirements of the Rules of the Exchange and the Rules of the Clearing Corporation.

(b) Quotes are subject to the following requirements and conditions:

(1) Market Makers may generate and submit option quotations.

(2) The System shall time-stamp a quote which shall determine the time ranking of the quote for purposes of processing the quote.

(3) Market Makers may enter bids and/or offers in the form of a two-sided quote. Only one quote may be submitted at a time for an option series.

(4) The System accepts quotes beginning at a time specified by the Exchange and communicated on the Exchange's web site.

(5) **Firm Quote.** When quotes in options on another market or markets are subject to relief from the firm quote requirement set forth in the SEC Quote Rule, orders and quotes will receive an automatic execution at or better than the NBBO based on the best bid or offer in markets whose quotes are not subject to such relief. Such determination may be made by way of notification from another market that its quotes are not firm or are unreliable; administrative message from the Option Price Reporting Authority ("OPRA"); quotes received from another market designated as "not firm" using the appropriate indicator; and/or telephonic or electronic inquiry to, and verification from, another market that its quotes are not firm. The Exchange shall maintain a record of each instance in which another exchange's quotes are excluded from the Exchange's calculation of NBBO, and shall notify such other exchange that its quotes have been so excluded. Where quotes in options on another market or markets previously subject to relief from the firm quote requirement set forth in the Quote Rule are no longer subject to such relief, such quotations will be included in the calculation of NBBO for such options. Such determination may be made by way of notification from another market that its quotes are firm; administrative message from OPRA; and/or telephonic or electronic inquiry to, and verification from, another market that its quotes are firm.

(6) Trade-Through Compliance and Locked or Crossed Markets. A quote will not be executed at a price that trades through another market or displayed at a price that would lock or cross another market. If, at the time of entry, a quote would cause a locked or crossed market violation or would cause a trade-through violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) and displayed at one minimum price variance above (for offers) or below (for bids) the national best price.

(7) Quotes submitted to the System are subject to the following: minimum increments provided for in Chapter VI, Section 5 and risk protections provided for in Chapter VI, Section 18.

(c) Quotes will be displayed in the System as described in Chapter VI, Section 19.

[(a) General - A System order is an order that is entered into the System for display and/or execution as appropriate. Such orders are executable against marketable contra-side orders in the System.

(1) All System Orders shall indicate whether they are a call or put and buy or sell and a price, if any. Systems Orders can be designated as Immediate or Cancel ("IOC"), Good-till-Cancelled ("GTC"), Day ("DAY") or WAIT. Any of the foregoing may also be designated as a Directed Order.

(2) A System order may also be designated as a Limit Order, a Minimum Quantity Order, a Market Order, or an All-or-None Order. Any of the foregoing may also be designated as a Directed Order.

(3) Zero-Bid Option Series. In the case where the bid price for any options contract is \$0.00, a market order accepted into the System to sell that series shall be considered a limit order to sell at a price equal to the minimum trading increment as defined in Chapter VI, Section 5. Orders will be placed on the limit order book in the order in which they were received by the System. With respect to market orders to sell which are submitted prior to the Opening and persist after the Opening, those orders are posted at a price equal to the minimum trading increment as defined in Chapter VI, Section 5.

(b) Routing - All System orders entered by Participants directing or permitting routing to other market centers shall be routed for potential display and/or execution as set forth in Section 11 below.

(c) Reserved.

(d) BX Options Kill Switch is an optional tool that enables BX Participants to initiate a message(s) to the System to: (i) promptly remove quotes; and/or (ii) promptly cancel orders. Participants may submit a request to the System to remove/cancel quotes and/or orders based on certain identifier(s) on either a user or group level ("Identifier"). Permissible groups must reside within a single broker-dealer. The System will send an automated message to the BX Participant when a Kill Switch request has been processed by the Exchange's System.

(i) If quotes are cancelled by the BX Participant utilizing the Kill Switch, it will result in the removal of all quotes requested for the Identifier(s). The BX Participant will be unable to enter any additional quotes for the affected Identifier(s) until re-entry has been enabled pursuant to section (d)(iii).

(ii) If orders are cancelled by the BX Participant utilizing the Kill Switch, it will result in the cancellation of all orders requested for the Identifier(s). The BX Participant will be unable to enter additional orders for the affected Identifier(s) until re-entry has been enabled pursuant to section (d)(iii).

(iii) After quotes and/or orders are removed/cancelled by the BX Participant utilizing the Kill Switch, the BX Participant will be unable to enter additional quotes and/or orders for the affected Identifier(s) until the BX Participant has made a verbal request to the Exchange and Exchange staff has set a re-entry indicator to enable re-entry. Once enabled for re-entry, the System will send a Re-entry Notification Message to the BX Participant. The applicable Clearing Participant also will be notified of the re-entry into the System after quotes and/or orders are removed/cancelled as a result of the Kill Switch, provided the Clearing Participant has requested to receive such notification.

(e) Detection of Loss of Communication

(i) When the SQF Port detects the loss of communication with a BX Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the BX Participant's affected Client Application and automatically cancel all of the BX Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same BX Options Market Maker ID and underlying issues.

(A) A "Heartbeat" message is a communication which acts as a virtual pulse between the SQF or FIX Port and the Client Application. The Heartbeat message sent by the BX Participant and subsequently received by the Exchange allows the SQF or FIX Port to continually monitor its connection with the BX Participant.

(B) SQF Port is the Exchange's System component through which BX Participants communicate their quotes from the Client Application.

(C) FIX Port is the Exchange's System component through which BX Participants communicate their orders from the Client Application.

(D) Client Application is the System component of the BX Participant through which the BX Participant communicates its quotes and orders to the Exchange.

(ii) When the FIX Port detects the loss of communication with a BX Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the BX Participant's affected

Client Application and, if the BX Participant has elected to have its orders cancelled pursuant to Chapter VI, Section 6(e)(iv), automatically cancel all open orders posted.

(iii) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A BX Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (i) above, to trigger the disconnect and must communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for SQF Ports prior to each session of connectivity to the Exchange. This feature is enabled for each BX Participant and may not be disabled.

(A) If the BX Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The BX Participant may change the default setting systemically prior to each session of connectivity.

(B) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the BX Participant shall persist for each subsequent session of connectivity until the BX Participant either contacts Exchange operations and changes the setting or the BX Participant systemically selects another time period prior to the next session of connectivity.

(iv) The default period of "nn" seconds for FIX Ports shall be thirty (30) seconds for the disconnect and, if elected, the removal of orders. If the BX Participant elects to have its orders removed, in addition to the disconnect, the BX Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (ii) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one (1) second and thirty (30) seconds for FIX Ports prior to each session of connectivity to the Exchange. This feature may be disabled for the removal of orders, however the BX Participant will be disconnected.

(A) If the BX Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to thirty seconds. The BX Participant may change the default setting systemically prior to each session of connectivity.

(B) If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the BX Participant shall persist for each subsequent session of connectivity until the BX Participant either contacts Exchange operations and changes the setting or the BX Participant systemically selects another time period prior to the next session of connectivity.

(v) The trigger for the SQF and FIX Ports is event and Client Application specific. The automatic cancellation of the BX Options Market Maker's quotes for SQF Ports and open orders for FIX Ports entered into the respective SQF or FIX Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other BX

Options Market Makers entered into SQF Ports or orders of the same or other BX Participants entered into the FIX Ports via a separate and distinct Client Application.]

Sec. 7 Entry and Display of Orders

(a) [Entry of Orders—]Participants can enter orders into the System, subject to the following requirements and conditions:

(1) Participants shall be permitted to transmit to the System multiple orders at [a] single as well as multiple price levels. [Each order shall indicate the amount of Reserve Size (if applicable).]

(2) The System accepts orders beginning at a time specified by the Exchange and communicated on the Exchange's web site.

([2]3) The System shall time-stamp an order which shall determine the time ranking of the order for purposes of processing the order.

([3]4) [Orders can be entered into the System (or previously entered orders cancelled) from the time prior to market open specified by the Exchange on its website until market close.] Orders submitted to the System are subject to minimum increments provided for in Chapter VI, Section 5, risk protections within Chapter VI, Section 18 and the restrictions of order types within Chapter VI, Section 21(b). Orders may execute at multiple prices.

(5) Nullification by Mutual Agreement. Trades may be nullified if all parties participating in the trade agree to the nullification. In such case, one party must notify the Exchange and the Exchange promptly will disseminate the nullification to OPRA. It is considered conduct inconsistent with just and equitable principles of trade for a party to use the mutual adjustment process to circumvent any applicable Exchange rule, the Act or any of the rules and regulations thereunder.

(b) **NBBO Price Protection.** Orders, other than Intermarket Sweep Orders (as defined in Rule Chapter XII, Section 1(9)) will not be automatically executed by the System at prices inferior to the NBBO (as defined in Chapter XII, Section 1(11)). There is no NBBO price protection with respect to any other market whose quotations are Non-Firm (as defined in Chapter XII, Section 1(12)).

(c) [Display of Orders— The System will display orders submitted to t]The System automatically executes eligible orders using the Exchange's displayed best bid an offer ("BBO").

(d) **Trade-Through Compliance and Locked or Crossed Markets.** An order will not be executed at a price that trades through another market or displayed at a price that would lock or cross another market. An order that is designated by the member as routable will be routed in compliance with applicable Trade-Through and Locked and Crossed Markets restrictions. An order that is designated by a member as non-routable will be re-priced in order to comply with applicable Trade-Through and Locked and Crossed Markets restrictions. If, at the time of entry, an order that the entering party has elected not to make eligible for routing would cause a locked

or crossed market violation or would cause a trade-through violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) and displayed at one minimum price variance above (for offers) or below (for bids) the national best price.

(e) Orders will be displayed in the System as described in Chapter VI, Section 19.

[(1) System Book Feed—displayed orders resident in the System available for execution will be displayed via the System Book Feed.

(2) Best Priced Order Display - For each System Security, the aggregate size of all Orders at the best price to buy and sell resident in the System will be transmitted for display to the appropriate network processor.

(3) Exceptions—The following exceptions shall apply to the display parameters set forth in paragraphs (1) and (2) above:

(A) Reserved.

(B) Reserved.

(C) Trade-Through Compliance and Locked or Crossed Markets- An order will not be executed at a price that trades through another market or displayed at a price that would lock or cross another market. An order that is designated by the member as routable will be routed in compliance with applicable Trade-Through and Locked and Crossed Markets restrictions. An order that is designated by a member as non-routable will be re-priced in order to comply with applicable Trade-Through and Locked and Crossed Markets restrictions.

If, at the time of entry, an order that the entering party has elected not to make eligible for routing would cause a locked or crossed market violation or would cause a trade-through violation, it will be re-priced to the current national best offer (for bids) or the current national best bid (for offers) and displayed at one minimum price variance above (for offers) or below (for bids) the national best price.]

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Sec. 10 Book Processing

System orders shall be executed through the BX Book Process set forth below:

(1) - (4) No change.

(5) **Zero-Bid Option Series.** In the case where the bid price for any options contract is \$0.00, a market order accepted into the System to sell that series shall be considered a limit order to sell at a price equal to the minimum trading increment as defined in Chapter VI, Section 5. Orders will be placed on the limit order book in the order in which they were received by the System. With respect to market orders to sell which are submitted prior to the Opening and persist after

the Opening, those orders are posted at a price equal to the minimum trading increment as defined in Chapter VI, Section 5.

(6) Routing - All System orders entered by Participants directing or permitting routing to other market centers shall be routed for potential display and/or execution as set forth in Section 11 below.

([5]7) *Market Access*. In addition to the Exchange Rules regarding routing to away trading centers, Nasdaq Execution Services, LLC, as defined in Chapter VI, Section 11(e) has, pursuant to Rule 15c3-5 under the Act, implemented certain tests designed to mitigate risks associated with providing the Exchange's Members with access to such away trading centers. Pursuant to the policies and procedures developed by Nasdaq Execution Services, LLC to comply with Rule 15c3-5, if an order or series of orders are deemed to be violative of applicable pre-trade requirements under Rule 15c3-5, the order will be rejected prior to routing and/or NES will seek to cancel the order if it has been routed.

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Sec. 21 Order and Quote Protocols

(a) No change.

(i) No change.

(A) No change.

(B) “**Specialized Quote Feed**” or “**SQF**” is an interface that allows Market Makers to connect, send, and receive messages related to quotes, Immediate-or-Cancel Orders, and auction responses into and from the Exchange. Features include the following: (1) options symbol directory messages (e.g underlying instruments); (2) system event messages (e.g., start of trading hours messages and start of opening); (3) trading action messages (e.g., halts and resumes); (4) execution messages; (5) quote messages; (6) Immediate-or-Cancel Order messages; (7) risk protection triggers and purge notifications; (8) opening imbalance messages; (9) auction notifications; and (10) auction responses. The SQF Purge Interface only receives and notifies of purge request from the Market Maker. Market Makers may only enter interest into SQF in their assigned options series.

Sec. 22 Kill Switch

(a) BX Options Kill Switch is an optional tool that enables BX Options Participants to initiate a message(s) to the System to: (i) promptly remove quotes; and/or (ii) promptly cancel orders. Participants may submit a request to the System to remove/cancel quotes and/or orders based on certain identifier(s) on either a user or group level ("Identifier"). Permissible groups must reside within a single broker-dealer. The System will send an automated message to the BX Options Participant when a Kill Switch request has been processed by the Exchange's System.

- (1) If quotes are cancelled by the BX Options Participant utilizing the Kill Switch, it will result in the removal of all quotes requested for the Identifier(s). The BX Options Participant will be unable to enter any additional quotes for the affected Identifier(s) until re-entry has been enabled pursuant to section (a)(3).
- (2) If orders are cancelled by the BX Options Participant utilizing the Kill Switch, it will result in the cancellation of all orders requested for the Identifier(s). The BX Options Participant will be unable to enter additional orders for the affected Identifier(s) until re-entry has been enabled pursuant to section (a)(3).
- (3) After quotes and/or orders are removed/cancelled by the BX Options Participant utilizing the Kill Switch, the BX Options Participant will be unable to enter additional quotes and/or orders for the affected Identifier(s) until the BX Options Participant has made a verbal request to the Exchange and Exchange staff has set a re-entry indicator to enable re-entry. Once enabled for re-entry, the System will send a Re-entry Notification Message to the BX Options Participant. The applicable Clearing Participant also will be notified of the re-entry into the System after quotes and/or orders are removed/cancelled as a result of the Kill Switch, provided the Clearing Participant has requested to receive such notification.

Sec. 23 Detection of Loss of Communication

(a) When the SQF Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and automatically cancel all of the Participant's open quotes. Quotes will be cancelled across all Client Applications that are associated with the same BX Options Market Maker ID and underlying issues.

- (1) A "Heartbeat" message is a communication which acts as a virtual pulse between the SQF, FIX or OTTO Port and the Client Application. The Heartbeat message sent by the Participant and subsequently received by the Exchange allows the SQF, FIX or OTTO Port to continually monitor its connection with the Participant.
- (2) SQF Port is the Exchange's System component through which Participants communicate their quotes from the Client Application.
- (3) FIX and OTTO Ports are the Exchange's System components through which Participants communicate their orders from the Client Application.
- (4) Client Application is the System component of the Participant through which the Exchange Participant communicates its quotes and orders to the Exchange.

(b) When the FIX Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client

Application and if the Participant has elected to have its orders cancelled pursuant to subparagraph (e) automatically cancel all open orders posted.

(c) When the OTTO Port detects the loss of communication with a Participant's Client Application because the Exchange's server does not receive a Heartbeat message for a certain time period ("nn" seconds), the Exchange will automatically logoff the Participant's affected Client Application and if the Participant has elected to have its orders cancelled pursuant to subparagraph (f) automatically cancel all open orders posted.

(d) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (i) above, to trigger the disconnect and must communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for SQF Ports prior to each session of connectivity to the Exchange. This feature is enabled for each Participant and may not be disabled.

(1) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The Participant may change the default setting systemically prior to each session of connectivity.

(2) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

(e) The default period of "nn" seconds for FIX Ports shall be thirty (30) seconds for the disconnect and, if elected, the removal of orders. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (b) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one (1) second and thirty (30) seconds for FIX Ports prior to each session of connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

(A) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to thirty seconds. The Participant may change the default setting systemically prior to each session of connectivity.

(B) If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

(f) The default time period ("nn" seconds) for OTTO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. If the Participant elects to have its orders removed, in addition to the disconnect, the Participant may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (c) above, to trigger the disconnect and removal of orders and communicate that time to the Exchange. The period of "nn" seconds may be modified to a number between one hundred (100) milliseconds and 99,999 milliseconds for OTTO Ports prior to each session of connectivity to the Exchange. This feature may be disabled for the removal of orders, however the Participant will be disconnected.

(A) If the Participant systemically changes the default number of "nn" seconds, that new setting shall be in effect throughout the current session of connectivity and will then default back to fifteen seconds. The Participant may change the default setting systemically prior to each session of connectivity.

(B) If a time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Participant shall persist for each subsequent session of connectivity until the Participant either contacts Exchange operations and changes the setting or the Participant systemically selects another time period prior to the next session of connectivity.

(g) The trigger for the SQF, FIX and OTTO Ports is event and Client Application specific. The automatic cancellation of the BX Options Market Maker's quotes for SQF Ports and open orders for FIX and OTTO Ports entered into the respective SQF, FIX or OTTO Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other BX Options Market Makers entered into SQF Ports or orders of the same or other Participants entered into the FIX or OTTO Ports via a separate and distinct Client Application.

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Chapter VII Market Participants

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Sec. 5 Obligations of Market Makers

(a) – (c) No change.

(d) **Market Maker Orders.** Market Makers may enter all order types defined in Chapter VI, Section 1(e) in the options classes to which they are appointed and non-appointed.

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Sec. 12 [Order Exposure Requirements]Limitations on Order Entry

(a) **Limitations on Principal Transactions.** With respect to orders routed to BX Options, Options Participants may not execute as principal orders they represent as agent unless (i) agency orders are first exposed on BX Options for at least one (1) second or (ii) the Options Participant has been bidding or offering on BX Options for at least one (1) second prior to receiving an

agency order that is executable against such bid or offer or (iii) orders entered into BX PRISM pursuant to Chapter VI, Section 9.

[(b) Section 12] (1) This Rule prevents Options Participants from executing agency orders to increase its economic gain from trading against the order without first giving other trading interest on BX Options an opportunity to either trade with the agency order or to trade at the execution price when the Options Participant was already bidding or offering on the book. However, the Exchange recognizes that it may be possible for an Options Participant to establish a relationship with a customer or other person to deny agency orders the opportunity to interact on BX Options and to realize similar economic benefits as it would achieve by executing agency orders as principal. It will be a violation of Section 12 for an Options Participant to be a party to any arrangement designed to circumvent Section 12 by providing an opportunity for a customer to regularly execute against agency orders handled by the Options Participant immediately upon their entry into BX Options.

(b) Limit Orders. Options Participants shall not enter Public Customer limit orders into the System in the same options series, for the account or accounts of the same or related beneficial owners, in such a manner that the beneficial owner(s) effectively is operating as a market maker by holding itself out as willing to buy and sell such options contract on a regular or continuous basis. In determining whether a beneficial owner effectively is operating as a market maker, the Exchange will consider, among other things: the simultaneous or near-simultaneous entry of limit orders to buy and sell the same options contract and the entry of multiple limit orders at different prices in the same options series.

(c) Limitations on Solicitation Orders. [It will be a violation of Section 12 for a] An Options Participant may not [to cause the]execute[ion of] an order it represents as agent on BX Options against orders [it] solicited from members and non-member broker-dealers, whether such solicited orders are entered into BX Options directly by the Options Participant or by the solicited party (either directly or through another Options Participant), if the Options Participant fails to expose orders on BX Options as required by [Section 12]this Rule unless (i) the unsolicited order is first exposed on the Exchange for at least one (1) second, or (ii) the Options Participant orders entered into BX PRISM pursuant to Chapter VI, Section 9.

(d) Prior to or after submitting an order to BX Options, an Options Participant cannot inform another Options Participant or any other third party of any of the terms of the order for purposes of violating Chapter VII, Section 12.

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