

EXHIBIT 5

Deleted text is in brackets and new rule text is underlined.

Nasdaq GEMX Rules**[1. Definitions****Rule 100. Definitions**

(a) The following terms, when used in these Rules, shall have the meanings specified in this Chapter 1, unless the context indicates otherwise. Any term defined in the Limited Liability Company Agreement (the "LLC Agreement") or the By-Laws of Nasdaq GEMX, LLC (the "By-Laws") and not otherwise defined in this Chapter shall have the meaning assigned in the LLC Agreement or the By-Laws.

(1) An "**account number**" shall mean a number assigned to a Member. Members may have more than one account number.

(2) The term "**aggregate exercise price**" means the exercise price of an options contract multiplied by the number of units of the underlying security covered by the options contract.

(3) The term "**American-style option**" means an options contract that, subject to the provisions of Rule 1100 (relating to the cutoff time for exercise instructions) and to the Rules of the Clearing Corporation, can be exercised on any business day prior to its expiration date and on its expiration date.

(4) The term "**associated person**" or "**person associated with a Member**" means any partner, officer, director, or branch manager of a Member (or any person occupying a similar status or performing similar functions), any person directly or indirectly controlling, controlled by, or under common control with a Member or any employee of a Member.

(5) A "**badge**" shall mean an account number, which may contain letters and/or numbers, assigned to Market Makers. A Market Maker account may be associated with multiple badges.

(6) The term "**bid**" means a quote or limit order to buy one or more options contracts.

(7) The term "**board of directors**" or "**Board**" has the meaning set forth in Article I of the By-Laws.

(8) The term "**call**" means an options contract under which the holder of the option has the right, in accordance with the terms of the option, to purchase from the Clearing Corporation the number of shares of the underlying security covered by the options contract.

(9) The term "**class of options**" means all options contracts covering the same underlying security.

(10) The term "**Clearing Corporation**" means The Options Clearing Corporation.

(11) The term "**Clearing Member**" means a Member that is self-clearing or an Electronic Access Member that clears Exchange transactions for other Members of the Exchange.

(12) The term "**closing purchase transaction**" means an Exchange transaction that will reduce or eliminate a short position in an options contract.

(13) The term "**closing writing transaction**" means an Exchange transaction that will reduce or eliminate a long position in an options contract.

(14) The term "**CMM Rights**" means the non-transferable rights held by a Competitive Market Maker.

(14A) The term "**Code of Procedure**" means the procedural rules contained in Chapter 90.

(15) The term "**Competitive Market Maker**" means a Member that is approved to exercise trading privileges associated with CMM Rights.

(16) The term "**covered short position**" means (i) the obligation of a writer of a call option is secured by a "specific deposit" or an "escrow deposit" meeting the conditions of Rule 710(f) or 710(h), respectively, of the Rules of the Clearing Corporation, or the writer holds in the same account as the short position, on a share-for-share basis, a long position either in the underlying security or in an options contract of the same type and class of options where the exercise price of the options contract in such long position is equal to or less than the exercise price of the options contract in such short position; and (ii) the writer of a put option holds in the same account as the short position, on a share-for-share basis, a long position in an options contract of the same type and class of options where the exercise price of the options contract in such long position is equal to or greater than the exercise price of the options contract in such short position.

(17) The term "**discretion**" means the authority of a broker or dealer to determine for a customer the type of option, the class or series of options, the number of contracts, or whether options are to be bought or sold.

(18) The term "**EAM Rights**" means the non-transferable rights held by an Electronic Access Member.

(19) The term "**Electronic Access Member**" means a Member that is approved to exercise trading privileges associated with EAM Rights.

(20) The term "**European-style option**" means an options contract that, subject to the provisions of Rule 1100 (relating to the cutoff time for exercise instructions) and to the Rules of the Clearing Corporation, can be exercised only on its expiration date.

(21) The term "**Exchange Act**" or the "**Act**" means the Securities Exchange Act of 1934 and the rules and regulations thereunder, as amended from time to time.

(21A) The term "**Exchange Review Council**" means the committee authorized and directed to act for the Board of Directors of the Exchange in a manner consistent with the Exchange Rules with respect to (1) an appeal or review of a disciplinary proceeding; (2) a statutory disqualification decision; (3) a review of a membership proceeding; (4) a review of an offer of settlement, a letter of acceptance, waiver, and consent, and a minor rule violation plan letter; (5) the exercise of exemptive authority; (6) an appeal of proceedings involving Exchange Rules 303, 720, 720A, and 804; and (7) such other proceedings or actions authorized by the Exchange Rules.

(22) The term "**Exchange Rights**" means the PMM Rights, CMM Rights and EAM Rights collectively.

(23) The term "**Exchange Transaction**" means a transaction executed on or through the facilities of the Exchange.

(24) The term "**exercise price**" means the specified price per unit at which the underlying security may be purchased or sold upon the exercise of an options contract.

(25) The term "**Federal Reserve Board**" means the Board of Governors of the Federal Reserve System.

(26) The term "**good standing**" means that a Member is not delinquent with respect to Exchange dues, fees or other charges and is not suspended or barred from effecting Exchange Transactions or from association with a Member either by the Exchange or by means of a statutory disqualification.

(27) The terms "**he**," "**him**" or "**his**" shall be deemed to refer to persons of female as well as male gender, and to include organizations, as well as individuals, when the context so requires.

(28) The term "**in-the-money**" shall mean the following: for call options, all strike prices at or below the offer in the underlying security on the primary listing market; for put options, all strike prices at or above the bid in the underlying security on the primary listing market. This definition shall only apply for purposes of Market Maker quoting obligations in Rules 701 and 803.

(29) The term "**ISE**" means Nasdaq ISE, LLC, a national securities exchange.

(30) The term "**long position**" means a person's interest as the holder of one or more options contracts.

(31) The term "**Member**" means an organization that has been approved to exercise trading rights associated with Exchange Rights.

(32) The term "**Membership**" refers to the trading privileges associated with Exchange Rights.

(33) The term "**market makers**" refers to "Competitive Market Makers" and "Primary Market Makers" collectively.

- (34) The term "**Market Maker Rights**" refers to PMM Rights and CMM Rights collectively.
- (35) A "**mnemonic**" shall mean an acronym comprised of letters and/or numbers assigned to Electronic Access Members. An Electronic Access Member account may be associated with multiple mnemonics.
- (36) The term "**Non-Customer**" means a person or entity that is a broker or dealer in securities.
- (37) The term "**Non-Customer Order**" means an order for the account of a Non-Customer.
- (38) The term "**offer**" means a quote or limit order to sell one or more options contracts.
- (39) The term "**opening purchase transaction**" means an Exchange transaction that will create or increase a long position in an options contract.
- (40) The term "**opening writing transaction**" means an Exchange transaction that will create or increase a short position in an options contract.
- (41) The term "**out-of-the-money**" shall mean the following: for call options, all strike prices above the offer in the underlying security on the primary listing market; for put options, all strike prices below the bid in the underlying security on the primary listing market. This definition shall only apply for purposes of Market Maker quoting obligations in Rules 701 and 803.
- (42) The term "**Voluntary Professional**" means any Public Customer that elects, in writing, to be treated in the same manner as a broker or dealer in securities for purposes of Rules 713, 716, and 723, as well as the Exchange's Pricing Schedule.
- (43) The term "**options contract**" means a put or a call issued, or subject to issuance by the Clearing Corporation pursuant to the Rules of the Clearing Corporation.
- (44) The term "**OPRA**" means the Options Price Reporting Authority.
- (45) The term "**order**" means a commitment to buy or sell securities, the permitted types of which are set forth in Rule 715.
- (46) The term "**outstanding**" means an options contract which has been issued by the Clearing Corporation and has neither been the subject of a closing writing transaction nor has reached its expiration date.
- (47) The term "**PMM Rights**" means the non-transferable rights held by a Primary Market Maker.
- (48) The term "**Primary Market Maker**" means a Member that is approved to exercise trading privileges associated with PMM Rights.

(49) The term "**primary market**" means the principal market in which an underlying security is traded.

(50) The term "**Priority Customer**" means a person or entity that (i) is not a broker or dealer in securities, and (ii) does not place more than 390 orders in listed options per day on average during a calendar month for its own beneficial account(s).

(51) The term "**Priority Customer Order**" means an order for the account of a Priority Customer.

(52) The term "**Professional Order**" means an order that is for the account of a person or entity that is not a Priority Customer.

(i) Calculation of Professional Orders. With respect to computing the number of orders in listed options per day on average during a calendar month for its own beneficial account(s), the following shall apply:

(a) Each order is counted toward the number of orders, regardless of the options exchange to which the order was routed in determining Professional Orders.

(b) A cancel and replace order which replaces a prior order shall be counted as a second order, or multiple new orders in the case of "single-strike algorithms" which track the Best Bid and Offer ("BBO") or National Best Bid and Offer ("NBBO"). A cancel message is not an order.

(c) An order that converts into multiple subordinate orders to achieve an execution strategy shall be counted as one order per side and series, even if the order is routed away. An order that cancels and replaces the resulting subordinate order and results in multiple sides/series shall be counted as a new order per side and series. An order that cancels and replaces the subordinate order on the same side and series will count as one order. For purposes of counting customer orders, if one customer order on the same side and series is subsequently broken-up by a broker into multiple orders for purposes of execution or routed away, this order will count as one order.

(52A) The term "**Professional Customer**" means a non-broker/dealer participant who enters at least 390 orders per day on average during a calendar month for its own beneficial account(s).

(53) The term "**Public Customer**" means a person or entity that is not a broker or dealer in securities.

(54) The term "**Public Customer Order**" means an order for the account of a Public Customer.

(55) The term "**put**" means an options contract under which the holder of the option has the right, in accordance with the terms and provisions of the option, to sell to the Clearing Corporation the number of shares of the underlying security covered by the options contract.

(56) The term "**Quarterly Options Series**" means a series in an options class that is approved for listing and trading on the Exchange in which the series is opened for trading on any business day and that expires at the close of business on the last business day of a calendar quarter.

(57) The term "**quote**" or "**quotation**" means a bid or offer entered by a market maker that updates the market maker's previous bid or offer, if any.

(58) The term "**Rules of the Clearing Corporation**" means the Certificate of Incorporation, the By-laws and the Rules of the Clearing Corporation, and all written interpretations thereof, as the same may be in effect from time to time.

(59) The term "**SEC**" and the "**Commission**" mean the United States Securities and Exchange Commission.

(60) The term "**series of options**" means all options contracts of the same class having the same exercise price and expiration date.

(61) The term "**short position**" means a person's interest as the writer of one or more options contracts.

(62) The term "**Short Term Option Series**" means a series in an option class that is approved for listing and trading on the Exchange in which the series is opened for trading on any Monday, Tuesday, Wednesday, Thursday, or Friday that is a business day and that expires on the Monday, Wednesday or Friday of the following business week that is a business day, or, in the case of a series that is listed on a Friday and expires on a Monday, is listed one business week and one business day prior to that expiration. If a Tuesday, Wednesday, Thursday or Friday is not a business day, the series may be opened (or shall expire) on the first business day immediately prior to that Tuesday, Wednesday, Thursday or Friday. For a series listed pursuant to this section for Monday expiration, if a Monday is not a business day, the series shall expire on the first business day immediately following that Monday.

(63) The term "**SRO**" means a self-regulatory organization as defined in Section 3(a)(26) of the Exchange Act.

(64) The term "**System**" means the electronic system operated by the Exchange that receives and disseminates quotes, executes orders and reports transactions.

(65) The term "**type of option**" means the classification of an options contract as either a put or a call.

(66) The term "**uncovered**" means a short position in an options contract that is not covered.

(67) The term "**underlying security**" means the security that the Clearing Corporation shall be obligated to sell (in the case of a call option) or purchase (in the case of a put option) upon the valid exercise of an options contract.

(68) The term "**proprietary trading**" for purposes of Rule 1210 means trading done by a member having the characteristics:

- (A) The member is not required by Section 15(b)(8) of the Exchange Act to become a FINRA member but is a member of another registered securities exchange not registered solely under Section 6(g) of the Exchange Act;
- (B) All funds used or proposed to be used by the member are the trading member's own capital, traded through the member's own accounts;
- (C) The member does not, and will not, have customers; and
- (D) All persons registered on behalf of the member acting or to be acting in the capacity of a trader must be owners of, employees of, or contractors to the Member.

2. Administration]

Rule 200. Establishment of Committees

The Chief Executive Officer and President, with the approval of the Board, shall appoint any committee members that are not Directors to committees established upon delegated authority by the Board as set forth in the By-Laws, or established by the Chief Executive Officer and President pursuant to authority delegated to him by the Board.

Rule 201. Removal of Committee Members

The Chief Executive Officer and President may, with the approval of the Board, remove any committee member for refusal, neglect, or inability to discharge such committee member's duties.

Rule 202. Committee Procedures

Except as otherwise provided in the By-Laws, the Rules or resolution of the Board, each committee shall determine its own time and manner of conducting its meetings, and the vote of a majority of the members of a committee present at a meeting at which a quorum is present shall be the act of the committee. Committees may act informally by written consent of all of the members of the committee.

Rule 203. General Duties and Powers of Committees

Each committee shall administer the provisions of the By-Laws and the Rules pertaining to matters within its jurisdiction. Each committee shall have such other powers and duties as may be delegated to it by the Board. Each committee is subject to the control and supervision of the Board.

[Rule 204. Divisions of the Exchange

The divisions of the Exchange shall include the Regulatory Division and such other Divisions as the Chief Executive Officer and President, with the approval of the Board, may establish. The Chief Executive Officer and President shall appoint a head of every Division and may designate departments within each Division.

Rule 205. Participant Fees

The fees payable by Members shall be fixed from time to time by the Exchange. Fees shall be payable in full on the first day of each month on a nonrefundable basis and shall be applied to the month beginning on that day.

Rule 206. Reserved

Reserved

Rule 207. Exchange's Costs of Defending Legal Proceedings

(a) Any Member or person associated with a Member who fails to prevail in a lawsuit or other legal proceeding instituted by such person against the Exchange or any of its Directors, officers, committee members, employees or agents, and related to the business of the Exchange, shall pay to the Exchange all reasonable expenses, including attorneys' fees, incurred by the Exchange in the defense of such proceeding, but only in the event that such expenses exceed fifty thousand dollars (\$50,000).

(b) Paragraph (a) of this Rule shall not apply to disciplinary actions by the Exchange, to administrative appeals of Exchange actions or in any specific instance where the Board has granted a waiver of this provision.

Rule 208. Sales Value Fee

The Sales Value Fee is assessed by the Exchange to each Member for sales on the Exchange with respect to which the Exchange is obligated to pay a fee to the Commission under Section 31 of the Exchange Act. To the extent that there may be any excess monies collected under this rule, the Exchange may retain those monies to help fund its general operating expenses. The sales transactions to which the fee applies are sales of options (other than options on a security index) and the sales of securities resulting from the exercise of physical-delivery options. The fee is collected indirectly from Members through their clearing firms by the Clearing Corporation on behalf of Nasdaq GEMX with respect to options sales and options exercises. The Sales Value Fee is equal to (a) the Section 31 fee rate multiplied by (b) the Member's aggregate dollar amount of covered sales resulting from options transactions occurring on the Exchange during any computational period.

Rule 209. Reserved

Reserved

3. Membership**Rule 300. Membership**

The Exchange shall issue Memberships that confer the ability to transact on the Exchange. There is no limit on the number of Memberships that may be issued by the Exchange. In addition, in no event shall the Exchange act in a manner under this paragraph that does not comply with the provisions of Section 6(c)(4) of the Exchange Act.

Rule 301. Qualification of Members

(a) A Member of the Exchange may be a corporation, partnership, or LLC. Each Member must:

- (1) be a broker-dealer registered pursuant to Section 15 of the Exchange Act; and
- (2) meet the qualifications for a Member in accordance with Exchange Rules applicable thereto.

(b) A Member that does not maintain an office in the United States responsible for preparing and maintaining financial and other reports required to be filed with the Commission and the Exchange must:

- (1) prepare all such reports, and maintain a general ledger chart of account and any description thereof, in English and U.S. dollars;
- (2) reimburse the Exchange for any expense incurred in connection with examinations of the Member to the extent that such expenses exceed the cost of examining a Member located within the continental United States; and
- (3) ensure the availability of an individual fluent in English and knowledgeable in securities and financial matters to assist representatives of the Exchange during examinations.

(c) Every Member shall have as the principal purpose of being a Member the conduct of a securities business. Such a purpose shall be deemed to exist if and so long as:

- (1) the Member has qualified and acts in respect of its business on the Exchange in one or more of the following capacities: (i) an Electronic Access Member; (ii) a Primary Market Maker; or (iii) a Competitive Market Maker; and
- (2) all transactions effected by the Member are in compliance with Section 11(a) of the Exchange Act and the rules and regulations adopted thereunder.

Rule 302. Member Application Procedures

(a) *Nasdaq ISE Members.* A Nasdaq ISE Member in good standing is eligible to become a Nasdaq GEMX Member of the same category (i.e., a Nasdaq ISE PMM Member is eligible to become a Nasdaq GEMX PMM Member, a Nasdaq ISE CMM Member is eligible to become a Nasdaq GEMX CMM Member and a Nasdaq ISE EAM Member is eligible to become a Nasdaq GEMX EAM Member). Nasdaq ISE Member applicants are not required to complete and submit an Exchange application. Instead, only Exchange forms concerning electing to trade on the Exchange, submitting to the Exchange jurisdiction, and operational matters need to be completed and tendered.

(b) *Non-Nasdaq ISE Members.* All non-Nasdaq ISE Members seeking to become a Member of the Exchange must submit an application to the Exchange in accordance with such procedures as shall be established by the Exchange via regulatory circular including submission deadlines and payment of any applicable application fees. The Exchange shall provide non-Nasdaq ISE Members with at least sixty (60) days advance written notice of the date upon which the Exchange shall allocate options classes and appoint market makers pursuant to Exchange Rule 802 in order to ensure non-Nasdaq ISE Members have a reasonable opportunity to participate in those processes. A market participant must have completed a membership application to be

eligible to participate in the processes set forth in Rule 802. In addition, the following shall apply:

(i) Applications must be accompanied by a non-refundable application fee.

(ii) Within a reasonable time following receipt of an application, the name of the applicant shall be posted by the Exchange.

(iii) An applicant must be approved by the Exchange to perform in at least one of the recognized capacities of a Member as stated in Rule 301(c).

(iv) Upon completion of the application process, the Exchange shall consider whether to approve the application, unless there is just cause for delay. Persons associated with the applicant are subject to investigation by the Exchange and may be required to appear in person before the Exchange. The Exchange may also require any person associated with a Member who may possess information relevant to the applicant's suitability to be a Member to provide information or testimony.

(v) The Exchange will determine whether to approve an application. Written notice of the action of the Exchange, specifying in the case of disapproval of an application the grounds therefor, shall be provided to the applicant.

(vi) If the application process is not completed within six (6) months of the filing of the application form and payment of the appropriate fee, the application shall be deemed to be automatically withdrawn.

(vii) With respect to each Membership that becomes effective in accordance with this Rule, the Exchange shall promptly notify all Members thereof.

(c) *Rights of Members.* No rights shall be conferred upon a Member except those set forth in the Rules as amended from time to time. A Membership shall not convey any ownership interest in the Exchange. Memberships may not be leased and are not transferable except in the event of a change in control or corporate reorganization involving a Member. In such case, Member status may be transferred to a qualified affiliate or successor upon written notice to the Exchange.

(d) *Fees and Charges for Members.* Members shall be subject to such fees and charges as are established by the Exchange from time to time pursuant to Rule 205 and the Exchange's Pricing Schedule. The entire fee for a Member shall be due and payable in full on or before the first day on which the Membership is effective on a nonrefundable basis. An organization holding a Membership in its name shall be responsible for paying all fees and charges for that Membership.

(e) *Exchange Jurisdiction over Members.* Every Member shall be subject to the regulatory jurisdiction of the Exchange under the Exchange Act and the Rules, including without limitation the Exchange's disciplinary jurisdiction under Chapter 16 of the Rules.

Rule 303. Denial of and Conditions to Becoming a Member

(a) An applicant to become a Member of the Exchange must seek approval in the form and manner prescribed by the Exchange.

(b) The Exchange may deny (or condition) approval of a Member, or may prevent a person from becoming associated (or condition an association) with a Member, for the same reasons that the SEC may deny or revoke a broker-dealer registration and for those reasons required or allowed under the Exchange Act.

(c) The Exchange also may deny (or condition) approval of a Member, or may prevent a person from becoming associated with (or condition an association) with a Member, when the applicant, directly or indirectly:

(1) has a negative net worth, has financial difficulties involving an amount that is more than five percent (5%) of the applicant's net worth, or has a pattern of failure to pay just debts (whether or not such debts have been the subject of a bankruptcy action);

(2) is unable satisfactorily to demonstrate a capacity to adhere to all applicable Exchange, SEC, the Clearing Corporation and Federal Reserve Board policies, rules and regulations, including those concerning record-keeping, reporting, finance and trading procedures; or

(3) is unable satisfactorily to demonstrate reasonably adequate systems capability and capacity.

(d) When an applicant is a subject of an investigation conducted by any SRO or government agency involving its fitness for becoming a Member, the Exchange need not act on the application until the matter has been resolved.

(e) The Exchange may determine not to permit a Member or person associated with a Member to continue as a Member or associated therewith, if the Member or associated person:

(1) fails to meet any of the qualification requirements for becoming a Member or associated with a Member after approval thereof;

(2) fails to meet any condition placed by the Exchange on such Member or association with a Member;

(3) violates any agreement with the Exchange; or

(4) becomes subject to a statutory disqualification under the Exchange Act.

(f) If a Member or person associated with a Member that becomes subject to a statutory disqualification under the Exchange Act wants to continue as a Member of the Exchange or in association with a Member, the Member or associated person must submit an application to the Exchange seeking to continue as a Member or in association with a Member notwithstanding the statutory disqualification, as set forth in Rule 9522. Failure to timely file such an application is a

factor that may be taken into consideration by the Exchange in making determinations pursuant to paragraph (e) of this Rule.

(g) Review by the Exchange Review Council

Subject to Chapter 90 of the Rules, any applicant whose application to become a Member is denied or conditioned by the Exchange's Membership Department ("the Department"), or any person whose association with a Member is denied or conditioned by the Department pursuant to paragraph (b) or (c) of this Rule, and any Member or person associated with a Member who is not permitted by the Department pursuant to paragraph (e) of this Rule to continue as a Member or to be associated with a Member or which continuance as a Member or association is conditioned by the Department, may appeal the Department's decision to the Exchange Review Council, as set forth below.

(1) Initiation of Review by Applicant

Within 25 days after service of a decision under Rule 303, an applicant ("Applicant") may file a written request for review with the Exchange Review Council. A request for review shall state with specificity why the Applicant believes that the Department's decision is inconsistent with the bases for denial set forth in Rule 303, or otherwise should be set aside, and state whether a hearing is requested. The Applicant simultaneously shall file by first-class mail a copy of the request with the Department.

(2) Transmission of Documents

Within ten days after the filing of a request for review, the Department shall:

- (A) transmit to the Exchange Review Council copies of all documents that were considered in connection with the Department's decision and an index to the documents; and
- (B) serve on the Applicant a copy of such documents (other than those documents originally submitted by Applicant) and a copy of the index.

(3) Membership Application Docket

The Department shall promptly record in the Exchange's membership application docket each request for review filed with the Exchange Review Council under this Rule and each material subsequent event, filing, and change in the status of a membership proceeding.

(4) Appointment of Subcommittee

The Exchange Review Council or the Review Subcommittee defined in Rule 9120 shall appoint a Subcommittee to participate in the review. The Subcommittee shall be composed of two or more persons who shall be current or past members of the Exchange Review Council or former Directors.

(5) Powers of Subcommittee

If a hearing is requested, the Subcommittee shall conduct the hearing. If a hearing is not requested, the Subcommittee may serve a notice directing that a hearing be held. If a hearing is not requested or directed, the Subcommittee shall conduct its review on the basis of the record developed before the Department and any written submissions made by the Applicant or the Department in connection with the request for review.

(6) Hearing**(A) Notice**

If a hearing is requested or directed, the hearing shall be held within 45 days after the filing of the request with the Exchange Review Council or service of the notice by the Subcommittee. The Exchange Review Council shall serve written notice of the date and time of the hearing to the Applicant by facsimile or overnight courier not later than 14 days before the hearing.

(B) Counsel

The Applicant and the Department may be represented by counsel at a hearing conducted pursuant to this Rule.

(C) Evidence

Formal rules of evidence shall not apply to a hearing under this Rule. Not later than five days before the hearing, the Applicant and the Department shall exchange copies of their proposed hearing exhibits and witness lists and provide copies of the same to the Exchange Review Council. If the Applicant or the Department fails to provide copies of its proposed hearing exhibits or witness list within such time, the Subcommittee shall exclude the evidence or witnesses from the proceeding, unless the Subcommittee determines that good cause is shown for failure to comply with the production date set forth in this subparagraph.

(D) Transcript

The hearing shall be recorded and a transcript prepared by a court reporter. A transcript of the hearing shall be available for purchase from the court reporter at prescribed rates. The Applicant, the Department, or a witness may seek to correct the transcript. A proposed correction of the transcript shall be submitted to the Subcommittee within a reasonable period of time prescribed by the Subcommittee. Upon notice to the Applicant and the Department, the Subcommittee may direct the correction to the transcript as requested or sua sponte.

(7) Additional Information, Briefs

At any time during its consideration, the Subcommittee or the Exchange Review Council may direct the Applicant or the Department to file additional information or briefs. Any additional

information or brief filed shall be provided to all parties before the Exchange Review Council renders its decision.

(8) Abandonment of Request for Review

If an Applicant fails to specify the grounds for its request for review under Rule 303 (g)(1), appear at a hearing for which it has notice, or file information or briefs as directed, the Exchange Review Council or the Review Subcommittee may dismiss the request for review as abandoned, and the decision of the Department shall become the final action of the Exchange. Upon a showing of good cause, the Exchange Review Council or the Review Subcommittee may withdraw a dismissal entered pursuant to this paragraph.

(9) Subcommittee Recommendation

The Subcommittee shall present a recommended decision in writing to the Exchange Review Council within 60 days after the date of the hearing held pursuant to subparagraph (g)(6), and not later than seven days before the meeting of the Exchange Review Council at which the membership proceeding shall be considered.

(10) Decision

(A) Proposed Written Decision

After considering all matters presented in the review and the Subcommittee's recommended written decision, the Exchange Review Council may affirm, modify, or reverse the Department's decision or remand the membership proceeding with instructions. The Exchange Review Council shall prepare a proposed written decision pursuant to subparagraph (g)(10)(B).

(B) Contents

The decision shall include:

- (i) a description of the Department's decision, including its rationale;
- (ii) a description of the principal issues raised in the review;
- (iii) a summary of the evidence on each issue; and
- (iv) a statement whether the Department's decision is affirmed, modified, or reversed, and a rationale therefor that references the bases for denial in Rule 303.

(C) Issuance of Decision After Expiration of Call for Review Periods

The Exchange Review Council shall provide its proposed written decision to the Exchange Board. The Exchange Board may call the membership proceeding for review pursuant to Rule 303(h). If the Exchange Board does not call the membership proceeding for review, the proposed

written decision of the Exchange Review Council shall become final. The Exchange Review Council shall serve the Applicant with a written notice specifying the date on which the call for review period expired and stating that the final written decision will be served within 15 days after such date. The Exchange Review Council shall serve its final written decision within 15 days after the date on which the call for review period expired. The decision shall constitute the final action of the Exchange for purposes of SEC Rule 19d-3, unless the Exchange Review Council remands the membership proceeding.

(D) Failure to Issue Decision

If the Exchange Review Council fails to serve its final written decision within the time prescribed in subparagraph (g)(10)(C), the Applicant may file a written request with the Exchange Board requesting that the Exchange Board direct the Exchange Review Council to serve its decision immediately or to show good cause for an extension of time. Within seven days after the filing of such a request, the Board shall direct the Exchange Review Council to serve its written decision immediately or to show good cause for an extension of time. If the Exchange Review Council shows good cause for an extension of time, the Exchange Board may extend the 15-day time limit by not more than 15 days.

(h) Discretionary Review by the Exchange Board

(1) Call for Review by Director

A Director may call a membership proceeding for review by the Exchange Board if the call for review is made within the period prescribed in subparagraph (h)(2).

(2) 15 Day Period; Waiver

A Director shall make his or her call for review at the next meeting of the Exchange Board that is at least 15 days after the date on which the Exchange Board receives the proposed written decision of the Exchange Review Council. By unanimous vote of the Exchange Board, the Exchange Board may shorten the period to less than 15 days. By an affirmative vote of the majority of the Exchange Board then in office, the Exchange Board may, during the 15 day period, vote to extend the period to more than 15 days.

(3) Review At Next Meeting

If a Director calls a membership proceeding for review within the time prescribed in subparagraph (h)(2), the Exchange Board shall review the membership proceeding not later than the next meeting of the Exchange Board. The Exchange Board may order the Applicant and the Department to file briefs in connection with review proceedings pursuant to this paragraph.

(4) Decision of the Exchange Board, Including Remand

After review, the Exchange Board may affirm, modify, or reverse the proposed written decision of the Exchange Review Council. Alternatively, the Exchange Board may remand the

membership proceeding with instructions. The Exchange Board shall prepare a written decision that includes all of the elements described in Rule 303(g)(10)(B).

(5) Issuance of Decision

The Exchange Board shall serve its written decision on the Applicant within 15 days after the meeting at which it conducted its review. The decision shall constitute the final action of the Exchange for purposes of SEC Rule 19d-3, unless the Exchange Board remands the membership proceeding.

Rule 304. Approval to Operate Multiple Memberships

(a) An applicant to become a Member or an approved Member may seek approval to exercise trading privileges associated with more than one Membership in the form and manner prescribed by the Exchange.

(b) An applicant or approved Member will be denied approval with respect to a particular Membership if (together with any of its affiliates) approval would result in the applicant or approved Member being approved to exercise the trading privileges associated with more than 30% of the Exchange Rights issued and outstanding at any time. No Member shall exercise voting rights in excess of those permitted under the Exchange's By-Laws.

Rule 305. Persons Associated with Members

(a) Persons associated with Members shall be bound by the By-Laws and Rules of the Exchange and the rules of the Clearing Corporation. The Exchange may bar a person from becoming or continuing to be associated with a Member if such person does not agree in writing, on a form prescribed by the Exchange, to furnish the Exchange with information with respect to such person's relationship and dealings with the Member, and information reasonably related to such person's other securities business, as may be required by the Exchange, and to permit the examination of its books and records by the Exchange to verify the accuracy of any information so supplied.

(b) Each Member shall file with the Exchange and keep current a list and descriptive identification of those persons associated with the Member(s) who are its executive officers, directors, principal shareholders, and general partners. Such persons shall file with the Exchange a Uniform application for Securities Industry Registration or Transfer (Form U-4).

(c) A claim of any person associated with a Member described in the first sentence of paragraph (b) of this Rule against such organization shall be subordinate in right of payment of customers and other Members.

Rule 307. Documents Required of Applicants and Members

(a) Although the Exchange may request additional information, at a minimum, the partnership agreement and all amendments thereto, in the case of a partnership, the articles of incorporation, by-laws and all amendments thereto, in the case of a corporation, and in the case of a limited liability company, the articles of organization and operating agreement and all amendments thereto shall be filed with, and shall be subject to review by, the Exchange; however, no action or

failure to act by the Exchange shall be construed to mean that the Exchange has in any way passed on the investment merits of or given approval to any such document.

(b) Every Member shall report to the Exchange all contact information required by the Exchange via the FINRA Contact system. Each Member shall update its required contact information promptly, but in any event not later than 30 days following any change in such information. In addition, each Member shall review and, if necessary, update its required contact information, via such means as the Exchange may specify, within 17 business days after the end of each calendar year. Each member shall comply with any Exchange request for such information promptly, but in any event not later than 15 days following the request, or such longer period that may be agreed to by Exchange staff.

(c) In a manner and form prescribed by the Exchange, every Member shall pledge to abide by the By-Laws and Rules of the Exchange, as amended from time to time, and by all circulars, notices, directives or decisions adopted pursuant to or made in accordance with the By-Laws and Rules.

(d) Reserved.

Rule 308. Dissolution and Liquidation of Members

Every Member shall promptly notify the Exchange in writing upon the adoption of a plan of liquidation or dissolution. Upon receipt of such notice, the Member's trading privileges may be suspended in accordance with Rule 9558.

Rule 309. Limitation on Affiliation between the Exchange and Members

(a) Without prior SEC approval, the Exchange, or any facility of the Exchange, or any entity with which the Exchange or any facility of the Exchange is affiliated shall not, directly or indirectly through one or more intermediaries, acquire or maintain an ownership interest in a Member. In addition, a Member shall not be or become an affiliate of the Exchange, or any facility of the Exchange, or any entity with which the Exchange or any facility of the Exchange is affiliated. In addition, no Member or person associated with a Member shall be the beneficial owner, directly or indirectly, of greater than twenty percent (20%) of the (i) then-outstanding voting Limited Liability Company Interest of the Exchange, or (ii) then-outstanding voting securities of Nasdaq, Inc. Nothing in this Rule shall prohibit any Member from being or becoming an affiliate of the Exchange, or any facility of the Exchange, or an affiliate of any affiliate of the Exchange or any facility of the Exchange solely by reason of any officer, director or partner of such Member being or becoming a Member Representative Director (as defined in the By-Laws) pursuant to the By-Laws. For purposes of this rule, any calculation of the voting Limited Liability Company Interest of the Exchange or the voting securities of Nasdaq, Inc. outstanding at any particular time shall be made in accordance with the last sentence of SEC Rule 13d-3(d)(1)(i)(D). The term "beneficially owned", including all derivative or similar words, shall have the meaning set forth in the Amended and Restated Certificate of Incorporation of Nasdaq, Inc.

(b) Nasdaq, Inc., which owns NASDAQ Execution Services, LLC and the Exchange, shall establish and maintain procedures and internal controls reasonably designed to ensure that NASDAQ Execution Services, LLC does not develop or implement changes to its system on the

basis of non-public information regarding planned changes to the Exchange's systems, obtained as a result of its affiliation with the Exchange, until such information is available generally to similarly situated Exchange Members in connection with the provision of inbound routing to the Exchange.

4. Business Conduct

Business Conduct

The rules contained in Nasdaq ISE Chapter 4, as such rules may be in effect from time to time (the "Chapter 4 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 4, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 4 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 4 Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 4 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 4 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Chapter" in the Chapter 4 Rules shall be read to refer to the Nasdaq GEMX Chapter; and the defined term "Member" in the Chapter 4 Rules shall be read to refer to the Nasdaq GEMX Member. For the avoidance of doubt, the reference to "lessor" in Rule 408 shall not apply to Nasdaq GEMX, as Nasdaq GEMX memberships cannot be leased under Nasdaq GEMX Rules.

5. Securities Traded on the Exchange

Securities Traded on the Exchange

The rules contained in Nasdaq ISE Chapter 5, as such rules may be in effect from time to time (the "Chapter 5 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 5, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 5 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 5 Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 5 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 5 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Market Maker" in the Chapter 5 Rules shall be read to refer to the Nasdaq GEMX Market Maker; and the defined term "Member" in the Chapter 5 Rules shall be read to refer to the Nasdaq GEMX Member.

6. Doing Business With the Public

Doing Business With the Public

The rules contained in Nasdaq ISE Chapter 6, as such rules may be in effect from time to time (the "Chapter 6 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 6, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 6 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 6 Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 6 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 6 Rules

shall be read to refer to the Nasdaq GEMX Rule; the defined term "Options Principal" in the Chapter 6 Rules shall be read to refer to the Nasdaq GEMX Options Principal; and the defined term "Member" in the Chapter 6 Rules shall be read to refer to the Nasdaq GEMX Member.

7. Doing Business On The Exchange

Rule 700. Days and Hours of Business

The Board shall determine the days the Exchange shall be open for business (referred to as "business days") and the hours of such days during which transactions may be made on the Exchange.

(a) Except for unusual conditions as may be determined by the Board, hours during which transactions in options on a narrow-based index, as defined in Rule 2001, and individual stocks may be made on the Exchange shall correspond to the normal business days and hours for business established by the markets currently trading the stocks underlying Exchange options.

(b) Options on Exchange-Traded Fund Shares, as defined in Rule 502(h), may be traded on the Exchange until 4:15 p.m. each business day.

(c) Options on a broad-based index, as defined in Rule 2001, may be traded on the Exchange until 4:15 p.m. each business day.

(d) Options on Index-Linked Securities, as defined in Rule 502(k)(1), may be traded on the Exchange until 4:15 p.m. each business day.

(e) The Exchange shall not be open for business on the following holidays: New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day or Christmas Day. When any holiday observed by the Exchange falls on a Saturday, the Exchange will not be open for business on the preceding Friday. When any holiday observed by the Exchange falls on a Sunday, the Exchange will not be open for business on the following Monday, unless unusual business conditions exist at the time.

Rule 701. Opening

(a) Definitions. The Exchange conducts an electronic opening for all option series traded on the Exchange using its trading system ("system").

(1) The "ABBO" is the Away Best Bid or Offer.

(2) The "market for the underlying security" is either the primary listing market or the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), as determined by the Exchange by underlying and announced to the membership on the Exchange's web site.

(3) The Opening Price is described herein in sections (h) and (j).

(4) The Opening Process is described herein in section (c).

(5) The Potential Opening Price is described herein in section (g).

(6) The Pre-Market BBO is the highest bid and the lowest offer among Valid Width Quotes.

(7) A "Quality Opening Market" is a bid/ask differential applicable to the best bid and offer from all Valid Width Quotes defined in a table to be determined by the Exchange and published on the Exchange's web site. The calculation of Quality Opening Market is based on the best bid and offer of Valid Width Quotes. The differential between the best bid and offer are compared to reach this determination. The allowable differential, as determined by the Exchange, takes into account the type of security (for example, Penny Pilot versus non-Penny Pilot issue), volatility, option premium, and liquidity. The Quality Opening Market differential is intended to ensure the price at which the Exchange opens reflects current market conditions.

(8) A "Valid Width Quote" is a two-sided electronic quotation submitted by a Market Maker that meets the following requirements: differentials shall be no more than \$.25 between the bid and offer for each options contract for which the bid is less than \$2, no more than \$.40 where the bid is at least \$2 but does not exceed \$5, no more than \$.50 where the bid is more than \$5 but does not exceed \$10, no more than \$.80 where the bid is more than \$10 but does not exceed \$20, and no more than \$1 where the bid is \$20 or greater, provided that, in the case of equity options, the bid/ask differentials stated above shall not apply to in-the-money series where the market for the underlying security is wider than the differentials set forth above. The bid/ask differentials for in-the-money options series may be as wide as the quotation for the underlying security on the primary market, or its decimal equivalent rounded down to the nearest minimum increment. The Exchange may establish differences other than the above for one or more series or classes of options.

(9) A "Zero Bid Market" is where the best bid for an options series is zero.

(b) Eligible interest during the Opening Process includes Valid Width Quotes, Opening Sweeps and orders. Quotes, other than Valid Width Quotes, will not be included in the Opening Process. All-or-None Orders that can be satisfied, and the displayed and non-displayed portions of Reserve Orders, are considered for execution and in determining the Opening Price throughout the Opening Process. Only Public Customer interest is routable during the Opening Process.

(1) Opening Sweep.

(i) A Market Maker assigned in a particular option may only submit an Opening Sweep if, at the time of entry of the Opening Sweep, that Market Maker has already submitted and maintains a Valid Width Quote. All Opening Sweeps in the affected series entered by a Market Maker will be cancelled immediately if that Market Maker fails to maintain a continuous quote with a Valid Width Quote in the affected series.

(ii) Opening Sweeps may be entered at any price with a minimum price variation applicable to the affected series, on either side of the market, at single or multiple price level(s), and may be cancelled and re-entered. A single Market Maker may enter multiple Opening Sweeps, with each Opening Sweep at a different price level. If a Market Maker submits multiple Opening Sweeps,

the system will consider only the most recent Opening Sweep at each price level submitted by such Market Maker in determining the Opening Price. Unexecuted Opening Sweeps will be cancelled once the affected series is open.

(2) The system will aggregate the size of all eligible interest for a particular participant category at a particular price level for trade allocation purposes pursuant to Rule 713.

(c) Market Maker Valid Width Quotes and Opening Sweeps received starting at 9:25 AM Eastern Time are included in the Opening Process. Orders entered at any time before an option series opens are included in the Opening Process.

(1) The Opening Process for an option series will be conducted pursuant to paragraphs (f) - (j) below on or after 9:30 AM Eastern Time if: the ABBO, if any, is not crossed; and the system has received, within two minutes (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) of the opening trade or quote on the market for the underlying security in the case of equity options or, in the case of index options, within two minutes of the receipt of the opening price in the underlying index (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site), or within two minutes of market opening for the underlying security in the case of U.S. dollar-settled foreign currency options (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) any of the following:

(i) the Primary Market Maker's ("PMM") Valid Width Quote;

(ii) the Valid Width Quotes of at least two Competitive Market Makers ("CMM"); or

(iii) if neither the PMM's Valid Width Quote nor the Valid Width Quotes of two CMMs have been submitted within such timeframe, one CMM has submitted a Valid Width Quote.

(2) For all options, the underlying security, including indexes, must be open on the primary market for a certain time period as determined by the Exchange for the Opening Process to commence. The time period shall be no less than 100 milliseconds and no more than 5 seconds.

(3) The PMM assigned in a particular equity or index option must enter a Valid Width Quote, in 90% of their assigned series, not later than one minute following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the opening price in the underlying index. The PMM assigned in a particular U.S. dollar-settled foreign currency option must enter a Valid Width Quote, in 90% of their assigned series, not later than one minute after the announced market opening. Provided an options series has not opened pursuant to Rule 701(c)(1)(ii) or (iii), PMMs must promptly enter a Valid Width Quote in the remainder of their assigned series, which did not open within one minute following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the opening price in the underlying index or, with respect to U.S. dollar-settled foreign currency options, following the announced market opening. Once an options series has opened pursuant to Rule 701(c)(1)(i) - (iii), a PMM must submit intra-day, two-sided quotes in such options series pursuant to Rule 804(e)(2).

(4) A CMM that submits a quote pursuant to this Rule 701 in any option series when the PMM's quote has not been submitted shall be required, once an options series has opened, to submit intra-day, two-sided quotes in such option series pursuant to Rule 804(e)(1).

(5) The Opening Process will stop and an option series will not open if the ABBO becomes crossed or when a Valid Width Quote(s) pursuant to Rule 701(c)(1) is no longer present. Once each of these conditions no longer exist, the Opening Process in the affected option series will start again pursuant to paragraphs (e) - (j) below.

(d) Reopening After a Trading Halt. The procedure described in Rule 701 will be used to reopen an option series after a trading halt. If there is a trading halt or pause in the underlying security, the Opening Process will start again irrespective of the specific times listed in paragraph (c)(1).

(e) Opening with a BBO (No Trade). If there are no opening quotes or orders that lock or cross each other and no routable orders locking or crossing the ABBO, the system will open with an opening quote by disseminating the Exchange's best bid and offer among quotes and orders ("BBO") that exist in the system at that time, unless all three of the following conditions exist: (i) a Zero Bid Market; (ii) no ABBO; and (iii) no Quality Opening Market. If all three conditions exist, the Exchange will calculate an Opening Quote Range pursuant to paragraph (i) and conduct the Price Discovery Mechanism pursuant to paragraph (j) below.

(f) Pre-Market BBO Calculation. If there are opening Valid Width Quotes, or orders, that lock or cross each other, the system will calculate the Pre-Market BBO.

(g) Potential Opening Price. To calculate the Potential Opening Price, the system will take into consideration all Valid Width Quotes and orders (including Opening Sweeps and displayed and non-displayed portions of Reserve Orders), except All-or-None Orders that cannot be satisfied, for the option series and identify the price at which the maximum number of contracts can trade ("maximum quantity criterion"). In addition, paragraphs (h)(3)(i) and (i)(5) - (7) below contain additional provisions related to Potential Opening Price.

(1) More Than One Potential Opening Price. When two or more Potential Opening Prices would satisfy the maximum quantity criterion and leave no contracts unexecuted, the system takes the highest and lowest of those prices and takes the mid-point; if such mid-point is not expressed as a permitted minimum price variation, it will be rounded to the minimum price variation that is closest to the closing price for the affected series from the immediately prior trading session. If there is no closing price from the immediately prior trading session, the system will round up to the minimum price variation to determine the Opening Price.

(2) If two or more Potential Opening Prices for the affected series would satisfy the maximum quantity criterion and leave contracts unexecuted, the Opening Price will be either the lowest executable bid or highest executable offer of the largest sized side.

(3) The Potential Opening Price calculation is bounded by the better away market price that may not be satisfied with the Exchange routable interest.

(h) Opening with Trade. The Exchange will open the option series for trading with a trade on Exchange interest only at the Opening Price, if any of these conditions occur:

- (1)** the Potential Opening Price is at or within the best of the Pre-Market BBO and the ABBO;
 - (2)** the Potential Opening Price is at or within the non-zero bid ABBO if the Pre-Market BBO is crossed; or
 - (3)** where there is no ABBO, the Potential Opening Price is at or within the Pre-Market BBO which is also a Quality Opening Market.
- (i)** If there is more than one Potential Opening Price which meets the conditions set forth in paragraphs (1) through (3) above where:

(A) no contracts would be left unexecuted and

(B) any value used for the mid-point calculation (which is described in paragraph (g) above) would cross either:

(I) the Pre-Market BBO, or

(II) the ABBO,

then, for the purposes of calculating the midpoint the Exchange will use the better of the Pre-Market BBO or ABBO as a boundary price and will open the option series for trading with an execution at the resulting Potential Opening Price. If these conditions are not met, an Opening Quote Range will be calculated pursuant to paragraph (i) below and thereafter, the Price Discovery Mechanism in paragraph (j) below will commence.

(i) The system will calculate an Opening Quote Range ("OQR") for a particular option series that will be utilized in the Price Discovery Mechanism described below, if the Exchange has not opened subject to any of the provisions above.

(1) Except as provided in paragraphs (3) and (4) below, to determine the minimum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest quote bid among Valid Width Quotes on the Exchange and on the away market(s), if any.

(2) Except as provided in paragraphs (3) and (4) below, to determine the maximum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest quote offer among Valid Width Quotes on the Exchange and on the away market(s), if any.

(3) If one or more away markets are disseminating a BBO that is not crossed, (the Opening Process will stop and an option series will not open if the ABBO becomes crossed pursuant to

(c)(5)) and there are Valid Width Quotes on the Exchange that are executable against each other or the ABBO:

(i) The minimum value for the OQR will be the highest away bid.

(ii) The maximum value for the OQR will be the lowest away offer.

(4) If there are Valid Width Quotes on the Exchange that are executable against each other, and there is no away market disseminating a BBO in the affected option series:

(i) The minimum value for the OQR will be the lowest quote bid among Valid Width Quotes on the Exchange.

(ii) The maximum value for the OQR will be the highest quote offer among Valid Width Quotes on the Exchange.

(5) If there is more than one Potential Opening Price possible where no contracts would be left unexecuted, any price used for the mid-point calculation (which is described in paragraph (g)(1) above) that is wider than the OQR will be restricted to the OQR price on that side of the market for the purposes of the mid-point calculation.

(6) If there is more than one Potential Opening Price possible where no contracts would be left unexecuted, pursuant to paragraph (g)(3) above when contracts will be routed, the system will use the away market price as the Potential Opening Price.

(7) If the Exchange determines that non-routable interest can execute the maximum number of contracts against Exchange interest, after routable interest has been determined by the system to satisfy the away market, then the Potential Opening Price is the price at which the maximum number of contracts can execute, excluding the interest which will be routed to an away market, which may be executed on the Exchange as described in paragraph (g) above. The system will route Public Customer interest in price/time priority to satisfy the away market.

(j) Price Discovery Mechanism. If the Exchange has not opened pursuant to paragraphs (e) or (h) above, after the OQR calculation in paragraph (i), the Exchange will conduct the following Price Discovery Mechanism.

(1) First, the system will broadcast an Imbalance Message for the affected series (which includes the symbol, side of the imbalance (unmatched contracts), size of matched contracts, size of the imbalance, and Potential Opening Price bounded by the Pre-Market BBO) to participants, and begin an "Imbalance Timer," not to exceed three seconds. The Imbalance Timer will be for the same number of seconds for all options traded on the Exchange. Each Imbalance Message is subject to an Imbalance Timer.

(2) Any new interest received by the system will update the Potential Opening Price. If during or at the end of the Imbalance Timer, the Opening Price is at or within the OQR, the Imbalance Timer will end and the system will open with a trade at the Opening Price if the executions

consist of Exchange interest only without trading through the ABBO and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price. If no new interest comes in during the Imbalance Timer and the Potential Opening Price is at or within OQR and does not trade through the ABBO, the Exchange will open with a trade at the end of the Imbalance Timer at the Potential Opening Price.

(3) Next, provided the option series has not opened pursuant to paragraph (j)(2) above, the system will:

(i) send a second Imbalance Message with a Potential Opening Price that is bounded by the OQR (and would not trade through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price) and includes away market volume in the size of the imbalance to participants; and concurrently

(ii) initiate a Route Timer, not to exceed one second. The Route Timer operates as a pause before an order is routed to an away market. If during the Route Timer, interest is received by the system which would allow the Opening Price to be within OQR without trading through away markets and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price, the system will open with trades at the Opening Price and the Route Timer will simultaneously end. The system will monitor quotes received during the Route Timer period and make ongoing corresponding changes to the permitted OQR and Potential Opening Price to reflect them.

(iii) If no trade occurred pursuant to (ii) above, when the Route Timer expires, if the Potential Opening Price is within OQR (and would not trade through the limit price(s) of interest within OQR that is unable to be fully executed at the Opening Price), the system will determine if the total number of contracts displayed at better prices than the Exchange's Potential Opening Price on away markets ("better priced away contracts") would satisfy the number of marketable contracts available on the Exchange. The Exchange will open the option series by routing and/or trading on the Exchange, pursuant to paragraphs (A)-(C) below.

(A) If the total number of better priced away contracts would satisfy the number of marketable contracts available on the Exchange on either the buy or sell side, the system will route all marketable contracts on the Exchange to such better priced away markets as an ISO designated as an Immediate-or-Cancel ("IOC") order(s), and determine an opening BBO that reflects the interest remaining on the Exchange. The system will price any contracts routed to away markets at the Exchange's Opening Price; or

(B) If the total number of better priced away contracts would not satisfy the number of marketable contracts the Exchange has, the system will determine how many contracts it has available at the Exchange Opening Price. If the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price would satisfy the number of marketable contracts on the Exchange on either the buy or sell side, the system will contemporaneously route, based on price/time priority of routable interest, a number of contracts that will satisfy interest at away markets at prices better than the Opening Price and trade available contracts on the Exchange at the Exchange Opening Price. The system will price any

contracts routed to away markets at the better of the Exchange Opening Price or the order's limit price pursuant to this sub-paragraph; or

(C) If the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price plus the contracts available at away markets at the Exchange Opening Price would satisfy the number of marketable contracts the Exchange has on either the buy or sell side, the system will contemporaneously route, based on price/time priority of routable interest, a number of contracts that will satisfy interest at away markets at prices better than the Exchange Opening Price (pricing any contracts routed to away markets at the better of the Exchange Opening Price or the order's limit price), trade available contracts on the Exchange at the Exchange Opening Price, and route a number of contracts that will satisfy interest at away markets at prices equal to the Exchange Opening Price.

(4) The system may send up to two additional Imbalance Messages (which may occur while the Route Timer is operating) bounded by OQR and reflecting away market interest in the volume. After the Route Timer has expired, the processes in paragraph (3) will repeat (except no new Route Timer will be initiated).

(5) Forced Opening. After all additional Imbalance Messages have occurred pursuant to paragraph (4) above, the system will open the series by executing as many contracts as possible by routing to away markets at prices better than the Exchange Opening Price for their disseminated size, trading available contracts on the Exchange at the Exchange Opening Price bounded by OQR (without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price), and routing contracts to away markets at prices equal to the Exchange Opening Price at their disseminated size. In this situation, the system will price any contracts routed to away markets at the better of the Exchange Opening Price or the order's limit price. Any unexecuted contracts from the imbalance not traded or routed will be cancelled back to the entering participant if they remain unexecuted and priced through the Opening Price, otherwise orders will remain in the Order Book.

(6) The system will execute orders at the Opening Price that have contingencies (such as, without limitation, All-or-None and Reserve Orders) and non-routable orders, such as a "Do-Not-Route" or "DNR" Orders, to the extent possible. The system will only route non-contingency Public Customer orders, except that only the full volume of Public Customer Reserve Orders may route.

(i) The system will cancel (1) any portion of a Do-Not-Route order that would otherwise have to be routed to the exchange(s) disseminating the ABBO for an opening to occur, or (2) any order that is priced through the Opening Price will be cancelled. All other interest will be eligible for trading after opening.

(k) During the opening of the option series, where there is an execution possible, the system will give priority to Market Orders first, then to resting Limit Orders and quotes. The allocation provisions of Rule 713 and the Supplementary Material thereto apply with respect to other orders and quotes with the same price.

(l) Upon opening of the option series, regardless of an execution, the system disseminates the price and size of the Exchange's best bid and offer (BBO).

Rule 702. Trading Halts

(a) *Halts.* An Exchange official designated by the Board may halt trading in any stock option in the interests of a fair and orderly market.

(1) The following are among the factors that may be considered in determining whether the trading in a stock option should be halted:

(i) trading in the underlying security has been halted or suspended in one or more of the markets trading the underlying security.

(ii) the opening of such underlying security has been delayed because of unusual circumstances.

(iii) other unusual conditions or circumstances are present.

(2) A designated Exchange official may halt trading (including a rotation) for a class or classes of options contracts whenever there is a halt of trading in an underlying security in one or more of the markets trading the underlying security. In such event, without the need for action by the Primary Market Maker, all trading in the effected class or classes of options may be halted. The Exchange shall disseminate through its trading facilities and over OPRA a symbol in respect of such class or classes of options indicating that trading has been halted, and a record of the time and duration of the halt shall be made available to vendors. No Member or person associated with a Member shall effect a trade on the Exchange in any options class in which trading has been halted under the provisions of this Rule during the time in which the halt remains in effect. During a halt, the Exchange will maintain existing orders on the book (but not existing quotes prior to the halt), accept orders and quotes, and process cancels and modifications, except existing quotes are cancelled.

(b) *Resumptions.* Trading in a stock option that has been the subject of a halt under paragraph (a)(1) above may be resumed upon the determination by an Exchange official designated by the Board that the conditions which led to the halt are no longer present or that the interests of a fair and orderly market are best served by a resumption of trading.

(c) *Trading Pauses.* Trading on the Exchange in any option contract shall be halted whenever trading in the underlying security has been paused by the primary listing market. Trading in such options contracts may be resumed upon a determination by the Exchange that the conditions that led to the pause are no longer present and that the interests of a fair and orderly market are best served by a resumption of trading, which in no circumstances will be before the Exchange has received notification that the underlying security has resumed trading on at least one exchange.

(d) This paragraph shall be in effect during a pilot period that expires at the close of business on October 18, 2019. Capitalized terms used in this paragraph (d) shall have the same meaning as provided for in the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of

Regulation NMS, as it may be amended from time to time ("LULD Plan"). During a Limit State and Straddle State in the Underlying NMS stock:

(1) The Exchange will not open an affected option.

(2) Provided the Exchange has opened an affected option for trading, the Exchange shall reject Market Orders, as defined in Rule 715(a), and shall notify Members of the reason for such rejection. Market Orders exposed at the NBBO pursuant to Supplementary Material. 02 to Nasdaq ISE Rule 1901, pending in the System, will continue to be processed. If at the end of the exposure period the affected underlying is in a Limit or Straddle State, the Market Order will be cancelled. If the affected underlying is no longer in a Limit or Straddle State after the exposure period, the Market Order will be processed with normal handling.

(3) Provided the Exchange has opened an affected option for trading, the Exchange shall elect Stop Orders if the condition as provided in Rule 715(d) is met, and, because they become Market Orders, shall cancel them back and notify Members of the reason for such rejection.

(4) When the security underlying an option class is in a Limit State or Straddle State, the maximum quotation spread requirements for market maker quotes contained in Rule 803(b)(4) and the intra-day quotation requirements contained in Rule 804(e) shall be suspended. The time periods associated with Limit States and Straddle States will not be considered by the Exchange when evaluating whether a market maker complied with the intra-day quotation requirements contained in Rule 804(e).

Supplementary Material to Rule 702

.01 The Exchange shall nullify any transaction that occurs:

(a) during a trading halt in the affected option on the Exchange; or

(b) with respect to equity options (including options overlying ETFs), during a regulatory halt as declared by the primary listing market for the underlying security.

Rule 703. Trading Halts Due To Extraordinary Market Volatility

The Exchange shall halt trading in all securities whenever a marketwide trading halt (commonly known as a circuit breaker) is initiated on the New York Stock Exchange in response to extraordinary market conditions.

Rule 704. Collection and Dissemination of Quotations

(a) Each market maker shall communicate to the Exchange its bid and offers in accordance with the requirements of Rule 602 of Regulation NMS under the Exchange Act and the Rules of the Exchange.

(b) The Exchange will disseminate to quotation vendors the highest bid and the lowest offer, and the aggregate quotation size associated therewith that is available to Public Customer Orders, in accordance with the requirements of Rule 602 of Regulation NMS under the Exchange Act.

(c) Unusual Market Conditions.

(1) An Exchange official designated by the Board shall have the power to determine that the level of trading activities or the existence of unusual market conditions is such that the Exchange is incapable of collecting, processing, and making available to quotation vendors the data for the option in a manner that accurately reflects the current state of the market on the Exchange. Upon making such a determination, the Exchange shall designate the market in such option to be "fast." When a market for an option is declared fast, the Exchange will provide notice that its quotations are not firm by appending an appropriate indicator to its quotations.

(2) If a market is declared fast, designated Exchange officials shall have the power to: (i) direct that one or more trading rotations be employed pursuant to Rule 701; (ii) suspend the minimum size requirement of Rule 804(b); or (iii) take such other actions as are deemed in the interest of maintaining a fair and orderly market.

(3) The Exchange will monitor the activity or conditions that caused a fast market to be declared, and a designated Exchange official shall review the condition of such market at least every thirty (30) minutes. Regular trading procedures shall be resumed by the Exchange when a designated Exchange official determines that the conditions supporting a fast market declaration no longer exist. The Exchange will provide notice that its quotations are once again firm by removing the indicator from its quotations.

(4) If the conditions supporting a fast market declaration cannot be managed utilizing one or more of the procedures described above, then a designated Exchange official shall halt trading in the class or classes so affected.

Rule 705. Limitation of Liability

(a) The Exchange, its Directors, officers, committee members, employees, contractors or agents shall not be liable to Members nor any persons associated with Members for any loss, expense, damages or claims arising out of the use of the facilities, systems or equipment afforded by the Exchange, nor any interruption in or failure or unavailability of any such facilities, systems or equipment, whether or not such loss, expense, damages or claims result or are alleged to result from negligence or other unintentional errors or omissions on the part of the Exchange, its Directors, officers, committee members, employees, contractors, agents or other persons acting on its behalf, or from systems failure, or from any other cause within or outside the control of the Exchange. Without limiting the generality of the foregoing, the Exchange shall have no liability to any person for any loss, expense, damages or claims which result from any error, omission or delay in calculating or disseminating any current or closing index value or any reports of transactions in or quotations for options or other securities, including underlying securities.

(b) The Exchange makes no warranty, express or implied, as to results to be obtained by any person or entity from the use of any data transmitted or disseminated by or on behalf of the Exchange or any reporting authority designated by the Exchange, including but not limited to, reports of transactions in or quotations for securities traded on the Exchange or underlying securities, or reports of interest rate measures or index values or related data, and the Exchange

makes no express or implied warranties of merchantability or fitness for a particular purpose or use with respect to any such data.

(c) No Member or person associated with a Member shall institute a lawsuit or other legal proceeding against the Exchange or any Director, officer, employee, contractor, agent or other official of the Exchange or any subsidiary of the Exchange, for actions taken or omitted to be taken in connection with the official business of the Exchange or any subsidiary, except to the extent such actions or omissions constitute violations of the federal securities laws for which a private right of action exists. This provision shall not apply to appeals of disciplinary actions or other actions by the Exchange as provided for in the Rules.

(d) Notwithstanding paragraph (a) above, the Exchange, subject to the express limits set forth below, may compensate users of the Exchange for losses directly resulting from the actual failure of the System, or any other Exchange quotation, transaction reporting, execution, order routing or other systems or facility to correctly process an order, quote, message, or other data, provided that the Exchange has acknowledged receipt of the order, quote, message, or data.

(1) For the aggregate of all claims made by all market participants related to the use of the Exchange during a single calendar month, the Exchange's payments shall not exceed the larger of \$500,000, or the amount of the recovery obtained by the Exchange under any applicable insurance policy.

(2) In the event that all of the claims arising out of the use of the Exchange cannot be fully satisfied because in the aggregate they exceed the limitations provided for in this Rule, then the maximum permitted amount will be proportionally allocated among all such claims arising during a single calendar month.

(3) All claims for compensation pursuant to this Rule shall be in writing and must be submitted no later than 12:00 P.M. ET on the next business day following the day on which the use of the Exchange gave rise to such claims. Nothing in this rule shall obligate the Exchange to seek recovery under any applicable insurance policy.

Rule 706. Access to and Conduct on the Exchange

(a) *Access to Exchange.* Unless otherwise provided in the Rules, no one but a Member or a person associated with a Member shall effect any Exchange transactions. The Exchange may share any Member-designated risk settings in the trading system with the Clearing Member that clears transactions on behalf of the Member.

(b) *Exchange Conduct.* Members and persons employed by or associated with any Member, while using the facilities of the Exchange, shall not engage in conduct (i) inconsistent with the maintenance of a fair and orderly market; (ii) apt to impair public confidence in the operations of the Exchange; or (iii) inconsistent with the ordinary and efficient conduct of business. Activities that may violate the provisions of this paragraph (b) include, but are not limited to, the following:

(1) failure of a market maker to provide quotations in accordance with Rule 804;

- (2) failure of a market maker to bid or offer within the ranges specified by Rule 803(b)(4);
- (3) failure of a Member to supervise a person employed by or associated with such Member adequately to ensure that person's compliance with this paragraph (b);
- (4) failure to abide by a determination of the Exchange;
- (5) refusal to provide information requested by the Exchange; and
- (6) failure to abide by the provisions of Rule 717.

Supplementary Material to Rule 706

.01 (a) General. The Exchange shall be available for entry and execution of orders by Sponsored Customers with authorized access. Sponsored Access shall mean an arrangement whereby a Member permits its customers to enter orders into the System that bypass the Member's trading system and are routed directly to the Exchange, including routing through a service bureau or other third party technology provider.

.01 (b) Sponsored Customers. A Sponsored Customer may obtain authorized access to the Exchange only if such access is authorized in advance by one or more Sponsoring Members as follows:

(1) Sponsored Customers must enter into and maintain customer agreements with one or more Sponsoring Members establishing proper relationship(s) and account(s) through which the Sponsored Customers may trade on the Exchange ("Customer Agreement"). Such Customer Agreement(s) must incorporate the sponsorship provisions set forth in paragraph (2) below.

(2) For a Sponsored Customer to obtain and maintain authorized access to the Exchange, a Sponsored Customer and its Sponsoring Member must agree in writing to the following sponsorship provisions:

(i) The authorized access must comply with Rule 15c3-5 under the Securities Exchange Act of 1934.

(ii) Sponsoring Member acknowledges and agrees that

(A) All orders entered by the Sponsored Customer and any person acting on behalf of or in the name of such Sponsored Customer and any executions occurring as a result of such orders are binding in all respects on the Sponsoring Member, and

(B) Sponsoring Member is responsible for any and all actions taken by such Sponsored Customer and any person acting on behalf of or in the name of such Sponsored Customer.

(iii) Sponsoring Member shall comply with the Exchange's Certificate of Formation, By-Laws, Rules and procedures with regard to the Exchange and Sponsored Customer shall comply with

Exchange's Certificate of Formation, By-Laws, Rules and procedures with regard to the Exchange, as if Sponsored Customer were an Exchange Member.

(iv) Sponsored Customer shall maintain, keep current and provide to the Sponsoring Member a list of persons who have been granted access to the Exchange on behalf of the Sponsored Customer ("Authorized Traders").

(v) Sponsored Customer shall familiarize its Authorized Traders with all of the Sponsored Customer's obligations under this Rule and will assure that they receive appropriate training prior to any use or access to the Exchange.

(vi) Sponsored Customer may not permit anyone other than Authorized Traders to use or obtain access to the Exchange.

(vii) Sponsored Customer shall take reasonable security precautions to prevent unauthorized use or access to the Exchange, including unauthorized entry of information into the Exchange's System, or the information and data made available therein. Sponsored Customer understands and agrees that Sponsored Customer is responsible for any and all orders, trades and other messages and instructions entered, transmitted or received under identifiers, passwords and security codes of Authorized Traders, and for the trading and other consequences thereof.

(viii) Sponsored Customer acknowledges its responsibility to establish adequate procedures and controls that permit it to effectively monitor its employees, agents and customers' use and access to the Exchange for compliance with this rule.

(ix) Sponsored Customer shall pay when due all amounts, if any, payable to Sponsoring Member, the Exchange or any other third parties that arise from the Sponsored Customer's access to and use of the Exchange. Such amounts include, but are not limited to applicable exchange and regulatory fees.

Rule 707. Authorization to Give Up

(a) General. For each transaction in which a Member participates, the Member may indicate, at the time of the trade or through post-trade allocation, any Options Clearing Corporation ("OCC") number of a Clearing Member through which a transaction will be cleared ("Give Up"), provided the Clearing Member has not elected to Opt In, as defined and described in paragraph (b) below, and restrict one or more of its OCC number(s) ("Restricted OCC Number"). A Member may Give Up a Restricted OCC Number provided the Member has written authorization as described in paragraph (b)(ii) below ("Authorized Member").

(b) Opt In. Clearing Members may request the Exchange restrict one or more of their OCC clearing numbers ("Opt In") as described in subparagraph (i) below. If a Clearing Member Opts In, the Exchange will require written authorization from the Clearing Member permitting a Member to Give Up a Clearing Member's Restricted OCC Number. An Opt In would remain in effect until the Clearing Member terminates the Opt In as described in subparagraph (iii) below. If a Clearing Member does not Opt In, that Clearing Member's OCC number would be subject to Give Up by any Member.

(i) *Clearing Member Process to Opt In.* A Clearing Member may Opt In by sending a completed “Clearing Member Restriction Form” listing all Restricted OCC Numbers and Authorized Members. A Clearing Member may elect to restrict one or more OCC clearing numbers that are registered in its name at OCC. The Clearing Member would be required to submit the Clearing Member Restriction Form to the Exchange’s Membership Department as described on the form. Once submitted, the Exchange requires ninety days before a Restricted OCC Number is effective within the System.

(ii) *Member Give Up Process for Restricted OCC Numbers.* A Member desiring to Give Up a Restricted OCC Number must become an Authorized Member. The Clearing Member will be required to authorize a Member as described in subparagraph (i) or (iii), unless the Restricted OCC Number is already subject to a Letter of Guarantee that the Member is a party to, as set forth in paragraph (d) below.

(iii) *Amendments to Authorized Members or Restricted OCC Numbers.* A Clearing Member may amend its Authorized Members or Restricted OCC Numbers by submitting a new Clearing Member Restriction Form to the Exchange’s Membership Department indicating the amendment as described on the form. Once a Restricted OCC Number is effective within the System pursuant to paragraph (i) above, the Exchange may permit the Clearing Member to authorize, or remove authorization for, a Member to Give Up the Restricted OCC Number intra-day only in unusual circumstances, and on the next business day in all regular circumstances. The Exchange will promptly notify Members if they are no longer authorized to Give Up a Clearing Member’s Restricted OCC Number. If a Clearing Member removes a Restricted OCC Number, any Member may Give Up that OCC clearing number once the removal has become effective on or before the next business day.

(c) *System.* The System will not allow an unauthorized Member to Give Up a Restricted OCC Number. If an unauthorized Give Up with a Restricted OCC Number is submitted to the System, the System will process that transaction using the Member’s default OCC clearing number.

(d) *Letter of Guarantee.* A clearing arrangement subject to a Letter of Guarantee would immediately permit the Give Up of a Restricted OCC Number by the Member that is party to the arrangement.

(e) An intentional misuse of this Rule is impermissible, and may be treated as a violation of Rule 400 or Rule 401.

Rule 708. Units of Trading

The unit of trading in each series of options traded on the Exchange shall be the unit of trading established for that series by the Clearing Corporation pursuant to the rules of the Clearing Corporation and the agreements of the Exchange with the Clearing Corporation.

Rule 709. Meaning of Premium Quotes and Orders

(a) *General.* Except as provided in paragraph (b), orders and quotations shall be expressed in terms of dollars per unit of the underlying security. For example, a bid of "5" shall represent a bid of \$500 for an options contract having a unit of trading consisting of 100 shares of an

underlying security, or a bid of \$550 for an options contract having a unit of trading consisting of 110 shares of an underlying security.

(b) *Special Cases.* Orders and quotations for an options contract for which the Exchange has established an adjusted unit of trading in accordance with Rule 708 shall be expressed in terms of dollars per 1/100 part of the total securities and/or other property constituting such adjusted unit of trading. For example, an offer of "3" shall represent an offer of \$300 for an options contract having a unit of trading consisting of 100 shares of an underlying security plus ten (10) rights.

(c) *Mini Options.* Bids and offers for an option contract overlying 10 shares shall be expressed in terms of dollars per 1/10th part of the total value of the contract. An offer of ".50" shall represent an offer of \$5.00 on an option contract having a unit of trading consisting of 10 shares.

Rule 710. Minimum Trading Increments

(a) The Board may establish minimum trading increments for options traded on the Exchange. Such changes by the Board will be designated as a stated policy, practice, or interpretation with respect to the administration of this Rule 710 within the meaning of paragraph (3)(A) of Section 19(b) of the Exchange Act and will be filed with the SEC as a rule change for effectiveness upon filing. Until such time as the Board makes a change in the increments, the following principles shall apply:

(1) if the options contract is trading at less than \$3.00 per option, \$.05; and

(2) if the options contract is trading at \$3.00 per option or higher, \$.10.

(b) Minimum trading increments for dealings in options contracts other than those specified in paragraph (a) may be fixed by the Exchange from time to time for options contracts of a particular series.

(c) Notwithstanding the above, the Exchange may trade in the minimum variation of the primary market in the underlying security.

Supplementary Material to Rule 710

.01 Notwithstanding any other provision of this Rule 710, the Exchange will operate a pilot program, scheduled to expire on December 31, 2019, to permit options classes to be quoted and traded in increments as low as \$.01. The Exchange will specify which options trade in such pilot, and in what increments, in Options Trader Alerts distributed to Members.

The Exchange may replace any penny pilot issues that have been delisted with the next most actively traded multiply listed options classes that are not yet included in the penny pilot, based on trading activity in the previous six months. The replacement issues may be added to the penny pilot on the second trading day in the first month of each quarter.

.02 Notwithstanding any other provision of this Rule 710, the Exchange will permit foreign currency options and options on a Foreign Currency Index to be quoted and traded in one-cent increments.

.03 Notwithstanding any other provision of this Rule 710, the minimum trading increment for Mini Options shall be determined in accordance with Supplementary Material .13(d) to Rule 504.

Rule 711. Acceptance of Quotes and Orders

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

(b) A trade 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.

(c) Kill Switch enables Members to initiate a message to the System to promptly cancel orders and restrict entry of new orders until re-entry has been enabled. Members may submit a request to the System to cancel orders for that Member. The System will send an automated message to the Member when a Kill Switch request has been processed by the Exchange's System.

(1) If orders are cancelled by the Member utilizing the Kill Switch, it will result in the cancellation of all orders for the Member. The Member will be unable to enter additional orders until re-entry has been enabled pursuant to section (d)(2).

(2) After orders are cancelled by the Member utilizing the Kill Switch, the Member will be unable to enter additional orders until the Member 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 Member. The applicable Clearing Member also will be notified of the re-entry into the System after orders are cancelled as a result of the Kill Switch, provided the Clearing Member has requested to receive such notification.

(d) Detection of Loss of Communication

(i) Definitions

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

(B) SQF Port is the Exchange's proprietary system component through which GEMX Market Makers communicate their quotes from the Client Application.

(C) OTTO Port is the Exchange's proprietary system component through which Members communicate their orders from the Client Application.

(D) FIX Port is the Exchange's universal system component through which Members communicate their orders from the Client Application.

(E) Client Application is the system component of the Member through which the Exchange Member communicates its quotes and orders to the Exchange.

(F) Session of Connectivity shall mean each time the Member connects to the Exchange's system. Each new connection, intra-day or otherwise, is a new Session of Connectivity.

(ii) When the SQF Port detects the loss of communication with a Member'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 Member's affected Client Application and automatically cancel all of the Member's open quotes pursuant to Rule 711(e)(v). Quotes will be cancelled across all Client Applications that are associated with the same GEMX Market Maker ID and underlying issues.

(iii) When the OTTO Port detects the loss of communication with a Member'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 Member's affected Client Application and if the Member has elected to have its orders cancelled pursuant to Rule 711(e)(vi) automatically cancel all orders.

(iv) When the FIX Port detects the loss of communication with a Member'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 Member's affected Client Application and if the Member has elected to have its orders cancelled pursuant to Rule 711(e)(vii) automatically cancel all orders.

(v) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A Member may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (ii) 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 Member and may not be disabled.

(A) If the Member 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 Member may change the default setting 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the

setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

(vi) The default period of "nn" seconds for OTTO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. A Member may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (iii) above, to trigger the disconnect and, if so elected, the 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 Member will be disconnected.

(A) If the Member 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 Member may change the default setting 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

(vii) The default period of "nn" seconds for FIX Ports shall be thirty (30) seconds for the disconnect and, if elected, the removal of orders. A Member may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (iv) above, to trigger the disconnect and, if so elected, the 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 Member will be disconnected.

(A) If the Member 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 Member may change the default setting 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

(viii) The trigger for the SQF, OTTO, and FIX Ports is Client Application specific. The automatic cancellation of the GEMX Market Maker's quotes for SQF Ports and open orders, if elected by the Member, for OTTO and FIX Ports entered into the respective SQF, OTTO, or FIX Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other GEMX Market Makers entered into SQF Ports or orders of the same or other Members entered into OTTO or FIX Ports via a separate and distinct Client Application.

Rule 712. Submission of Orders and Clearance of Transactions

(a) *Order Identification.* When entering orders on the Exchange, each Member shall submit trade information in such form as may be prescribed by the Exchange in order to allow the Exchange to properly prioritize and match orders and quotations pursuant to Rule 713 and report resulting transactions to the Clearing Corporation.

(b) All transactions made on the Exchange shall be submitted for clearance to the Clearing Corporation, and all such transactions shall be subject to the rules of the Clearing Corporation. Every Clearing Member shall be responsible for the clearance of the Exchange transactions of such Clearing Member and of each Member who gives up such Clearing Member's name pursuant to a written Letter of Guarantee or written authorization to become an Authorized Member under Rule 707, which authorization must be submitted to the Exchange.

(c) On each business day at or prior to such time as may be prescribed by the Clearing Corporation, the Exchange shall furnish the Clearing Corporation a report of each Clearing Member's matched trades.

Rule 713. Priority of Quotes and Orders

(a) *Definitions.*

As provided in Rule 100(a)(6) and (a)(38), a "bid" is a quotation or limit order to buy options contracts and an "offer" is a quotation or limit order to sell options contracts. "Quotations," which are defined in Rule 100(a)(57), may only be entered on the Exchange by market makers in the options classes to which they are appointed under Rule 802. Limit orders may be entered by market makers in certain circumstances as provided in the Rules and by Electronic Access Members (either as agent or as principal). "Priority Customer Orders" and "Professional Orders" are defined in Rule 100(a)(51) and (52).

(b) *Priority on the Exchange.* The highest bid and lowest offer shall have priority on the Exchange.

In the case where the bid price for any options contract is \$0.00, a market order to sell that series shall be considered a limit order to sell at a price equal to the minimum trading increment as defined in Rule 710.

(c) *Priority.* Except as provided under Rule 715(g), Priority Customer Orders on the Exchange shall have priority over Professional Orders and market maker quotes at the same price in the same options series.

(d) *Precedence of Priority Customer Orders.* Except as provided under Rule 715(g), if there are two (2) or more Priority Customer Orders for the same options series at the same price on the Exchange, priority shall be afforded to such Priority Customer Orders in the sequences in which they are received by the Exchange (*i.e.*, in time priority).

(e) *Precedence of Professional Orders and Market Maker Quotes.* Except as provided under Rule 715(g), if there are two (2) or more Professional Orders or market maker quotes at the

Exchange's best bid or offer, after all Priority Customer Orders (if any) at that price have been filled, executions at that price will be allocated between the Professional Orders and market maker quotes pursuant to an allocation procedure to be determined by the Exchange from time to time; provided, however, that if the Primary Market Maker is quoting at the Exchange's best bid or offer, it shall have precedence over Professional Orders and Competitive Market Maker quotes for execution of orders that are for a specified number of contracts or fewer, which number shall be determined by the Exchange from time to time.

Supplementary Material to Rule 713

.01 Rule 713(e) (Priority of Quotes and Orders) states that Priority Customer Orders have priority on the Exchange. That rule further provides that the Exchange will determine a procedure for allocating executions among Professional Orders and market maker quotes in cases where all Priority Customer Orders have been executed and there are two or more Professional Orders or market maker quotes at the best price. This procedure is as follows:

(a) Subject to the two limitations in paragraphs (b) and (c) below and subject to paragraph .03 (Preferred Orders), Professional Orders and market maker quotes at the best price receive allocations based upon the percentage of the total number of contracts available at the best price that is represented by the size of the Professional Order or quote;

(b) If the Primary Market Maker is quoting at the best price, it has participation rights equal to the greater of (i) the proportion of the total size at the best price represented by the size of its quote, or (ii) sixty percent (60%) of the contracts to be allocated if there is only one (1) other Professional Order or market maker quotation at the best price, forty percent (40%) if there are two (2) other Professional Orders and/or market maker quotes at the best price, and thirty percent (30%) if there are more than two (2) other Professional Orders and/or market maker quotes at the best price; and

(c) Orders for five (5) contracts or fewer will be executed first by the Primary Market Maker; provided however, that on a quarterly basis the Exchange will evaluate what percentage of the volume executed on the Exchange (excluding volume resulting from the execution of orders in the Facilitation Mechanism (see Rule 716(d))) is comprised of orders for five (5) contracts or fewer executed by Primary Market Makers, and will reduce the size of the orders included in this provision if such percentage is over forty percent (40%).

This procedure only applies to the allocation of executions among Professional Orders and market maker quotes existing in the Exchange's central order book at the time the order is received by the Exchange. No market participant is allocated any portion of an execution unless it has an existing interest at the execution price. Moreover, no market participant can execute a greater number of contracts than is associated with the price of its existing interest. Accordingly, the Primary Market Maker participation rights and the small order preference contained in this allocation procedure are not guarantees; the Primary Market Maker (i) must be quoting at the execution price to receive an allocation of any size, and (ii) cannot execute a greater number of contracts than the size that is associated with its quote.

.02 Reserved.

.03 Preferred Orders. An Electronic Access Member may designate a "Preferred Market Maker" on orders it enters into the System ("Preferred Orders").

(a) A Preferred Market Maker may be the Primary Market Maker appointed to the options class or any Competitive Market Maker appointed to the options class.

(b) If the Preferred Market Maker is not quoting at a price equal to the NBBO at the time the Preferred Order is received, the allocation procedure contained in paragraph .01 shall be applied to the execution of the Preferred Order.

(c) If the Preferred Market Maker is quoting at the NBBO at the time the Preferred Order is received, the allocation procedure contained in paragraph .01 shall be applied to the execution of the Preferred Order except that the Primary Market Maker will not receive the participation rights described in paragraphs .01(b) and (c), and instead the Preferred Market Maker shall have participation rights equal to the greater of:

(i) the proportion of the total size at the best price represented by the size of its quote,

(ii) sixty percent (60%) of the contracts to be allocated if there is only one (1) other Professional Order or market maker quotation at the best price and forty percent (40%) if there are two (2) or more other Professional Orders and/or market maker quotes at the best price, or

(iii) the full size of a Preferred Order for five (5) contracts or fewer if the Primary Market Maker appointed to the options class is designated as the Preferred Market Maker.

(d) Preferred Competitive Market Makers are subject to enhanced quoting requirements as provided in 804(e)(3).

.04 Notification of Public Customer Interest on the Book. The Exchange shall make available to Members the quantity of Public Customer contracts included in the Exchange's highest bid and lowest offer.

Rule 714. Automatic Execution of Orders

Incoming orders that are executable against orders and quotes in the System will be executed automatically by the System subject to the following:

(a) NBBO Price Protection. Orders, other than Intermarket Sweep Orders (as defined in Rule 1900(h)), will not be automatically executed by the System at prices inferior to the NBBO (as defined in Rule 1900(j)).

(1) Orders that are not automatically executed will be handled as provided in Supplementary Material .02 to Rule 1901; provided that Members may specify that a Non-Customer order should instead be rejected automatically by the System at the time of receipt.

(2) There is no NBBO price protection with respect to any other market whose quotations are Non-Firm (as defined in Rule 1900(k)).

(b) Other Risk Protections. Subject to the NBBO price protection in (a) above, the following additional risk protections are automatically enforced by the System. In the event of unusual market conditions and in the interest of a fair and orderly market, the Exchange may temporarily establish the levels at which the order protections contained in this paragraph are triggered as necessary and appropriate.

(1) The following are order risk protections on GEMX:

(A) Limit Order Price Protection. There is a limit on the amount by which incoming limit orders to buy may be priced above the Exchange's best offer and by which incoming limit orders to sell may be priced below the Exchange's best bid. Limit orders that exceed the pricing limit are rejected. The limit is established by the Exchange from time-to-time for orders to buy (sell) as the greater of the Exchange's best offer (bid) plus (minus): (i) an absolute amount not to exceed \$2.00, or (ii) a percentage of the Exchange's best bid/offer not to exceed 10%. Limit Order Price Protection shall not apply to the Opening Process or during a trading halt.

(B) Market Order Spread Protection. Market Orders will be rejected if the NBBO is wider than a preset threshold at the time the order is received by the System. Market Order Spread Protection shall not apply to the Opening Process or during a trading halt. The Exchange may establish different thresholds for one or more series or classes of options.

(C) Size Limitation. There is a limit on the number of contracts an incoming order may specify. Orders that exceed the maximum number of contracts are rejected. The maximum number of contracts, which shall not be less than 10,000, is established by the Exchange from time-to-time.

(D) Market Wide Risk Protection. All members must provide parameters for the order entry and execution rate protections described in this Rule 714(b)(1)(D). The Exchange will also establish default values for each of these parameters that apply to members that do not submit the required parameters, and will announce these default values in a circular to be distributed to members. The System will maintain one or more counting programs for each member that count orders entered and contracts traded on Nasdaq GEMX or across both Nasdaq GEMX and Nasdaq ISE. Members can use multiple counting programs to separate risk protections for different groups established within the member. The counting programs will maintain separate counts, over rolling time periods specified by the member for each count, of: (1) the total number of orders entered; and (2) the total number of contracts traded. The minimum and maximum duration of the applicable time period will be established by the Exchange and announced via circular.

(i) If, during the applicable time period, the member exceeds thresholds that it has set for any of the order entry or execution counts described above on Nasdaq GEMX, or across both Nasdaq GEMX and Nasdaq ISE, in either case as set by the member, the System will automatically reject all subsequent incoming orders entered by the member on Nasdaq GEMX or, if applicable, across both Nasdaq GEMX and Nasdaq ISE.

(ii) Members may also choose to have the System automatically cancel all of their existing orders on Nasdaq GEMX, or across both Nasdaq GEMX and Nasdaq ISE, in either case as set by the member, when the Market Wide Risk Protection is triggered.

(iii) The Market Wide Risk Protection will remain engaged until the member manually notifies the Exchange to enable the acceptance of new orders. For members that still have open orders on the book that have not been cancelled pursuant to Rule 714(b)(1)(D)(ii) above, the System will continue to allow those members to interact with existing orders entered before the protection was triggered, including sending cancel order messages and receiving trade executions for those orders.

(2) The following are order and quote risk protections on GEMX:

(A) Acceptable Trade Range.

(i) The system will calculate an Acceptable Trade Range to limit the range of prices at which an order or quote will be allowed to execute. The Acceptable Trade Range is calculated by taking the reference price, plus or minus a value to be determined by the Exchange (i.e., the reference price - (x) for sell orders/quotes and the reference price + (x) for buy orders or quotes). The Acceptable Trade Range will not be available for all-or-none orders.

(ii) The reference price is the NBB for sell orders/quotes and the NBO for buy orders/quotes. The Acceptable Trade Range is calculated using a reference price taken upon receipt of a new order or quote. For orders routed to away markets pursuant to the Supplementary Material to Rule 1901, if the applicable NBB or NBO price is improved at the time the order is routed, a new Acceptable Trade Range is calculated based on the reference price at that time.

(iii) If an order or quote reaches the outer limit of the Acceptable Trade Range without being fully executed then any unexecuted balance will be cancelled.

(iv) There will be three categories of options for Acceptable Trade Range: (1) Penny Pilot Options trading in one cent increments for options trading at less than \$3.00 and increments of five cents for options trading at \$3.00 or more, (2) Penny Pilot Options trading in one-cent increments for all prices, and (3) Non-Penny Pilot Options.

(3) The following are Market Maker risk protections on GEMX:

(A) Anti-Internalization. Quotes and orders entered by Market Makers will not be executed against quotes and orders entered on the opposite side of the market by the same Market Maker using the same Market Maker identifiers, or alternatively, if selected by the Member, the same Exchange account number or member firm identifier. In such a case, the System will cancel the resting quote or order back to the entering party prior to execution. This functionality shall not apply in any auction.

(B) Automated Quotation Adjustments.

(i) Market Makers are required to utilize the Percentage, Volume, Delta and Vega Thresholds, each a Threshold, described in (a) - (d) below. For each of these features, the System will automatically remove a Market Maker's quotes in all series in an options class when any of the Percentage Threshold, Volume Threshold, Delta Threshold or Vega Threshold, as described below, has been exceeded. A Market Maker is required to specify a period of time not to exceed 30 seconds ("Specified Time Period") during which the System will automatically remove a Market Maker's quotes in all series of an options class. The Specified Time Period will commence for an options class every time an execution occurs in any series in such option class and will continue until the System removes quotes as described in (ii) or (iii) or the Specified Time Period expires. The Specified Time Period operates on a rolling basis among all series in an options class in that there may be Specified Time Periods occurring simultaneously for each Threshold and such Specified Time Periods may overlap. The Specified Time Periods will be the same value for each protection described in (a) - (d) below.

(a) Percentage Threshold. A Market Maker must provide a specified percentage ("Percentage Threshold"), of not less than 1%, by which the System will automatically remove a Market Maker's quotes in all series of an options class. For each series in an options class, the System will determine (i) during a Specified Time Period and for each side in a given series, a percentage calculated by dividing the size of a Market Maker's quote size executed in a particular series (the numerator) by the Market Maker's quote size available at the time of execution plus the total number of the Market Maker's quote size previously executed during the unexpired Specified Time Period (the denominator) ("Series Percentage"); and (ii) the sum of the Series Percentage in the options class ("Issue Percentage") during a Specified Time Period. The System tracks and calculates the net impact of positions in the same options class; long call percentages are offset by short call percentages, and long put percentages are offset by short put percentages in the Issue Percentage. If the Issue Percentage exceeds the Percentage Threshold the System will automatically remove a Market Maker's quotes in all series of the options class during the Specified Time Period.

(b) Volume Threshold. A Market Maker must provide a Volume Threshold by which the System will automatically remove a Market Maker's quotes in all series of an options class when the Market Maker executes a number of contracts which exceeds the designated number of contracts in all series in an options class.

(c) Delta Threshold. A Market Maker must provide a Delta Threshold by which the System will automatically remove a Market Maker's quotes in all series of an options class. For each class of options, the System will maintain a Delta counter, which tracks the absolute value of the difference between (i) purchased call contracts plus sold put contracts and (ii) sold call contracts plus purchased put contracts. If the Delta counter exceeds the Delta Threshold established by the Member, the System will automatically remove a Market Maker's quotes in all series of the options class.

(d) Vega Threshold. A Market Maker must provide a Vega Threshold by which the System will automatically remove a Market Maker's quotes in all series of an options class. For each class of

options, the System will maintain a Vega counter, which tracks the absolute value of purchased contracts minus sold contracts. If the Vega counter exceeds the Vega Threshold established by the Member, the System will automatically remove a Market Maker's quotes in all series of the options class.

(ii) The System will automatically remove quotes in all series of an options class when the Percentage Threshold, Volume Threshold, Delta Threshold or Vega Threshold has been exceeded. The System will send a Purge Notification Message to the Market Maker for all affected series when the above thresholds have been exceeded.

(a) The Percentage Threshold, Volume Threshold, Delta Threshold and Vega Threshold are considered independently of each other.

(b) Quotes will be automatically executed up to the Market Maker's size regardless of whether the execution would cause the Market Maker to exceed the Percentage Threshold, Volume Threshold, Delta Threshold or Vega Threshold.

(iii) Notwithstanding Rule 714(b)(3)(B)(i) and (ii) above, if a Market Maker requests the System to remove quotes in all series of an options class, the System will automatically reset all Thresholds.

(iv) When the System removes quotes as a result of exceeding the Percentage Threshold, Volume Threshold, Delta Threshold or Vega Threshold, the Market Maker must send a re-entry indicator to re-enter the System.

(v) If a Market Maker does not provide a parameter for each of the automated quotation removal protections described in (B)(i)(a) - (d) above, the Exchange will apply default parameters, which are announced to Members.

(vi) In addition to the automated quotation removal protections described in (B)(i)(a) - (d) above, a Market Maker must provide a market wide parameter by which the Exchange will automatically remove a Market Maker's quotes in all classes when, during a time period established by the Market Maker, the total number of quote removal events specified in (B)(i)(a) - (d) exceeds the market wide parameter provided to the Exchange by the Market Maker. Market Makers may request the Exchange to set the market wide parameter to apply to just Nasdaq GEMX or across Nasdaq GEMX and Nasdaq ISE. Market Makers must request the Exchange enable re-entry by contacting the Exchange's Operations Department.

(c) In the event of unusual market conditions and in the interest of a fair and orderly market, the Exchange may temporarily establish the levels at which the order protections contained in paragraph (b) are triggered as necessary and appropriate.

(d) Market Wide Risk Protection. All members must provide parameters for the order entry and execution rate protections described in this Rule 714(d). The Exchange will also establish default values for each of these parameters that apply to members that do not submit the required parameters, and will announce these default values in a circular to be distributed to members.

The System will maintain one or more counting programs for each member that count orders entered and contracts traded on Nasdaq GEMX or across both Nasdaq GEMX and Nasdaq ISE. Members can use multiple counting programs to separate risk protections for different groups established within the member. The counting programs will maintain separate counts, over rolling time periods specified by the member for each count, of: (1) the total number of orders entered; and (2) the total number of contracts traded. The minimum and maximum duration of the applicable time period will be established by the Exchange and announced via circular.

(1) If, during the applicable time period, the member exceeds thresholds that it has set for any of the order entry or execution counts described above on Nasdaq GEMX, or across both Nasdaq GEMX and Nasdaq ISE, in either case as set by the member, the System will automatically reject all subsequent incoming orders entered by the member on Nasdaq GEMX or, if applicable, across both Nasdaq GEMX and Nasdaq ISE.

(2) Members may also choose to have the System automatically cancel all of their existing orders on Nasdaq GEMX, or across both Nasdaq GEMX and Nasdaq ISE, in either case as set by the member, when the Market Wide Risk Protection is triggered.

(3) The Market Wide Risk Protection will remain engaged until the member manually notifies the Exchange to enable the acceptance of new orders. For members that still have open orders on the book that have not been cancelled pursuant to Rule 714(d)(2) above, the System will continue to allow those members to interact with existing orders entered before the protection was triggered, including sending cancel order messages and receiving trade executions for those orders

Rule 715. Types of Orders

(a) *Market Orders.* A market order is an order to buy or sell a stated number of options contracts that is to be executed at the best price obtainable when the order reaches the Exchange.

(b) *Limit Orders.* A limit order is an order to buy or sell a stated number of options contracts at a specified price or better.

(1) *Marketable Limit Orders.* A marketable limit order is a limit order to buy (sell) at or above (below) the best offer (bid) on the Exchange.

(2) *Fill-or-Kill Orders.* A fill-or-kill order is a limit order that is to be executed in its entirety as soon as it is received and, if not so executed, treated as cancelled.

(3) *Immediate-or-Cancel Orders.* An immediate-or-cancel order is a limit order that is to be executed in whole or in part upon receipt. Any portion not so executed is to be treated as cancelled. An immediate-or-cancel order entered by a Market Maker through the Specialized Quote Feed protocol will not be subject to the Limit Order Price Protection and Size Limitation Protection as defined in GEMX Rule 714(b)(2) and (3).

(4) Reserved.

(5) *Intermarket Sweep Orders.* An Intermarket Sweep Order (ISO) is a limit order that meets the requirements of Rule 1900(h).

(6) *Stopped Order.* A stopped order is a limit order that meets the requirements of Rule 1901(b)(8). To execute stopped orders, Members must enter them into the Facilitation Mechanism or Solicited Order Mechanism pursuant to Rule 716.

(c) *All-Or-None Orders.* An All-Or-None order is a limit or market order that is to be executed in its entirety or not at all. An All-Or-None Order may only be entered as an Immediate-or-Cancel Order.

(d) *Stop Orders.* A stop order is an order that becomes a market order when the stop price is elected. A stop order to buy is elected when the option is bid or trades on the Exchange at, or above, the specified stop price. A stop order to sell is elected when the option is offered or trades on the Exchange at, or below, the specified stop price.

(e)

Stop Limit Orders A stop limit order is an order that becomes a limit order when the stop price is elected. A stop limit order to buy is elected when the option is bid or trades on the Exchange at, or above, the specified stop price. A stop limit order to sell becomes a sell limit order when the option is offered or trades on the Exchange at, or below, the specified stop price.

(f) Reserved.

(g) *Reserve Orders.* A Reserve Order is a limit order that contains both a displayed portion and a non-displayed portion.

1. Both the displayed and non-displayed portions of a Reserve Order are available for potential execution against incoming marketable orders. A non-marketable Reserve Order will rest on the order book.

2. The displayed portion of a Reserve Order shall be ranked at the specified limit price and the time of order entry.

3. The displayed portion of a Reserve Order will trade in accordance with Rule 713(c) and (d) for Priority Customer Orders, and Rule 713(e) and Supplementary Material .01, for Professional Orders.

4. When the displayed portion of a Reserve Order is decremented, either in full or in part, it shall be refreshed from the non-displayed portion of the resting Reserve Order. If the displayed portion is refreshed in part, the new displayed portion shall include the previously displayed portion. Upon any refresh, the entire displayed portion shall be ranked at the specified limit price and obtain a new time stamp, i.e., the time that the new displayed portion of the order was refreshed. The new displayed portion will trade in accordance with Rule 713(c) and (d) for

Priority Customer Orders, and Rule 713(e) and Supplementary Material .01, for Professional Orders.

5. The initial non-displayed portion of a Reserve Order rests on the order book and is ranked based on the specified limit price and time of order entry. Thereafter, non-displayed portions, if any, always obtain the same time stamp as that of the new displayed portion in paragraph 4 above. The non-displayed portion of any Reserve Order is available for execution only after all displayed interest has been executed. The non-displayed portion of any Reserve Order will trade in accordance with Rule 713(c) and (d) for Priority Customer Orders, and Rule 713(e) and Supplementary Material .01, for Professional Orders.

(h) *Attributable Order.* An Attributable Order is a market or limit order which displays the user firm ID for purposes of electronic trading on the Exchange. Use of Attributable Orders is voluntary. Attributable Orders may not be available for all Exchange systems. The Exchange will issue a Regulatory Information Circular specifying the systems and the class of securities for which the Attributable Order type shall be available.

(i) *Customer Cross Orders.* A Customer Cross Order is comprised of a Priority Customer Order to buy and a Priority Customer Order to sell at the same price and for the same quantity.

(j) *Qualified Contingent Cross Order.* A Qualified Contingent Cross Order is comprised of an originating order to buy or sell at least 1000 contracts that is identified as being part of a qualified contingent trade, as that term is defined in Supplementary Material .01 below, coupled with a contra-side order or orders totaling an equal number of contracts.

(k) Reserved

(l) *Day Order.* An order to buy or sell which, if not executed, expires at the end of the day on which it was entered. All orders by their terms are Day Orders unless otherwise specified.

(m) *Do-Not-Route Orders.* A do-not-route order is a market or limit order that is to be executed in whole or in part on the Exchange only. Due to prices available on another options exchange (as provided in Chapter 19 (Order Protection; Locked and Crossed Markets)), any balance of a do-not-route order that cannot be executed upon entry, or placed on the Exchange's limit order book, will be automatically cancelled.

(n) *Add Liquidity Order.* An Add Liquidity Order is a limit order that is to be executed in whole or in part on the Exchange (i) only after being displayed on the Exchange's limit order book; and (ii) without routing any portion of the order to another market center. Members may specify whether an Add Liquidity Order shall be cancelled or re-priced to the minimum price variation above the national best bid price (for sell orders) or below the national best offer price (for buy orders) if, at the time of entry, the order (i) is executable on the Exchange; or (ii) the order is not executable on the Exchange, but would lock or cross the national best bid or offer. If at the time of entry, an Add Liquidity Order would lock or cross one or more non-displayed orders on the Exchange, the Add Liquidity Order shall be cancelled or re-priced to the minimum price variation above the best non-displayed bid price (for sell orders) or below the best non-displayed

offer price (for buy orders). An Add Liquidity Order will only be re-priced once and will be executed at the re-priced price. An Add Liquidity Order will be ranked in the Exchange's limit order book in accordance with Rule 713.

(o) *Opening Only Order.* An Opening Only order is a limit order that can be entered for the opening rotation only. Any portion of the order that is not executed during the opening rotation is cancelled.

(p) *Good-Till-Date Order.* A Good-Till-Date Order is a limit order to buy or sell which, if not executed, will be cancelled at the sooner of the end of the expiration date assigned to the order, or the expiration of the series.

(q) Reserved.

(r) Good-Till-Canceled Order (GTC Order). An order to buy or sell that remains in force until the order is filled, canceled or the option contract expires; provided, however, that GTC Orders will be canceled in the event of a corporate action that results in an adjustment to the terms of an option contract.

(s) Sweep Order. A Sweep Order is a limit order that is to be executed in whole or in part on the Exchange and the portion not so executed shall be routed pursuant to Supplementary Material .05 to Rule 1901 to Eligible Exchange(s) for immediate execution as soon as the order is received by the Eligible Exchange(s). Any portion not immediately executed by the Eligible Exchange(s) shall be canceled. If a Sweep Order is not marketable when it is submitted to the Exchange, it shall be canceled.

(t) Opening Sweep. An Opening Sweep is a Market Maker order submitted for execution against eligible interest in the system during the Opening Process pursuant to Rule 701(b)(1).

Supplementary Material to Rule 715

.01 A "qualified contingent trade" is a transaction consisting of two or more component orders, executed as agent or principal, where:

(a) At least one component is an NMS Stock, as defined in Rule 600 of Regulation NMS under the Exchange Act;

(b) all components are effected with a product or price contingency that either has been agreed to by all the respective counterparties or arranged for by a broker-dealer as principal or agent;

(c) the execution of one component is contingent upon the execution of all other components at or near the same time;

(d) the specific relationship between the component orders (e.g., the spread between the prices of the component orders) is determined by the time the contingent order is placed;

(e) the component orders bear a derivative relationship to one another, represent different classes of shares of the same issuer, or involve the securities of participants in mergers or with intentions to merge that have been announced or cancelled; and

(f) the transaction is fully hedged (without regard to any prior existing position) as a result of other components of the contingent trade.

.02 Cancel and Replace Orders shall mean a single message for the immediate cancellation of a previously received order and the replacement of that order with a new order. If the previously placed order is already filled partially or in its entirety, the replacement order is automatically canceled or reduced by the number of contracts that were executed. The replacement order will retain the priority of the cancelled order, if the order posts to the Order Book, provided the price is not amended, size is not increased, or in the case of Reserve Orders, size is not changed. If the replacement portion of a Cancel and Replace Order does not satisfy the System's price or other reasonability checks (e.g. Rule 714(b)(1)(A) and Rule 714(b)(1)(B)) the existing order shall be cancelled and not replaced.

.03 The Exchange offers Members the following protocols for entering orders and quotes respectively:

(a) "**Financial Information eXchange**" or "**FIX**" is an interface that allows Members and their Sponsored Customers to connect, send, and receive messages related to orders and auction orders to the Exchange. Features include the following: (1) execution messages; (2) order messages; (3) risk protection triggers and cancel notifications; and (4) post trade allocation messages.

(b) "**Ouch to Trade Options**" or "**OTTO**" is an interface that allows Members and their Sponsored Customers to connect, send, and receive messages related to orders, auction orders, and auction responses to 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) order messages; (6) risk protection triggers and cancel notifications; (7) auction notifications; (8) auction responses; and (9) post trade allocation messages.

(c) "**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 to 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 requests from the market maker.

(d) "**Nasdaq Precise**" or "**Precise**" is a front-end interface that allows Electronic Access Members and their Sponsored Customers to send orders to the Exchange and perform other

related functions. Features include the following: (1) order and execution management: enter, modify, and cancel orders on the Exchange, and manage executions (e.g., parent/child orders, inactive orders, and post-trade allocations); (2) market data: access to real-time market data (e.g., NBBO and Exchange BBO); (3) risk management: set customizable risk parameters (e.g., kill switch); and (4) book keeping and reporting: comprehensive audit trail of orders and trades (e.g., order history and done away trade reports).

Rule 716. Auction Mechanisms

For purposes of this Rule, a "broadcast message" means an electronic message that is sent by the Exchange to all Members, and a "Response" means an electronic message that is sent by Members in response to a broadcast message. Also for purposes of this rule, the time given to Members to enter Responses for any of the below auction mechanisms shall be designated by the Exchange via circular, but no less than 100 milliseconds and no more than 1 second.

(a) Block Order Mechanism. The Block Order Mechanism is a process by which a Member can obtain liquidity for the execution of block-size orders. Block-size orders are orders for fifty (50) contracts or more.

(1) Upon the entry of an order into the Block Order Mechanism, a broadcast message will be sent that includes the series, and may include price, size and/or side, as specified by the Member entering the order, and Members will be given an opportunity to enter Responses with the prices and sizes at which they would be willing to trade with a block-size order.

(2) At the conclusion of the time given Members to enter Responses, either an execution will occur automatically, or the order will be cancelled.

(i) Responses, orders, and quotes will be executed at a single block execution price that is the price for the block-size order at which the maximum number of contracts can be executed consistent with the Member's instruction. Bids (offers) on the Exchange at the time the block order is executed that are priced higher (lower) than the block execution price, as well as Responses that are priced higher (lower) than the block execution price, will be executed in full at the block execution price.

(ii) At the block execution price, Priority Customer Orders and Priority Customer Responses will be executed first and in time priority, and then quotes, Professional Orders, and Professional Responses will participate in the execution of the block-size order based upon the percentage of the total number of contracts available at the block execution price that is represented by the size of the quote, Professional Order, or Professional Response.

(3) If a trading halt is initiated after an order is entered into the Block Order Mechanism, such auction will be automatically terminated without execution.

(b) Facilitation Mechanism. The Facilitation Mechanism is a process by which an Electronic Access Member can execute a transaction wherein the Electronic Access Member seeks to facilitate a block-size order it represents as agent, and/or a transaction wherein the Electronic Access Member solicited interest to execute against a block-size order it represents as agent.

Electronic Access Members must be willing to execute the entire size of orders entered into the Facilitation Mechanism.

(1) Upon the entry of an order into the Facilitation Mechanism, a broadcast message that includes the series, price and size of the Agency Order, and whether it is to buy or sell, will be sent and Members will be given an opportunity to enter Responses with the prices and sizes at which they want to participate in the facilitation of the order.

(2) Responses may be priced at the price of the order to be facilitated or at a better price and must not exceed the size of the order to be facilitated.

(3) At the end of the period given for the entry of Responses, the facilitation order will be automatically executed.

(i) Unless there is sufficient size to execute the entire facilitation order at a better price, Priority Customer bids (offers) at the time the facilitation order is executed that are priced higher (lower) than the facilitation price will be executed at the facilitation price. Professional Orders and market maker quotes at the time the facilitation order is executed that are priced higher (lower) than the facilitation price will be executed at their stated price, thereby providing the order being facilitated a better price for the number of contracts associated with such higher bids (lower offers). The facilitation order will be cancelled at the end of the exposure period if an execution would take place at a price that is inferior to the best bid (offer) on Nasdaq GEMX.

(ii) The facilitating Electronic Access Member will execute at least forty percent (40%) of the original size of the facilitation order, but only after better-priced Responses, orders and quotes, as well as Priority Customer Orders at the facilitation price, are executed in full. Thereafter, Responses quotes and Professional Orders at the facilitation price will participate in the execution of the facilitation order based upon the percentage of the total number of contracts available at the facilitation price that is represented by the size of the Response, Professional Order or quote.

(iii) Upon entry of an order into the Facilitation Mechanism, the facilitating Electronic Access Member can elect to automatically match the price and size of orders, quotes and responses received during the exposure period up to a specified limit price or without specifying a limit price. In this case, the facilitating Electronic Access Member will be allocated its full size at each price point, or at each price point within its limit price if a limit is specified, until a price point is reached where the balance of the order can be fully executed. At such price point, the facilitating Member shall be allocated at least forty percent (40%) of the original size of the facilitation order, but only after Priority Customer interest at such price point. Thereafter, all other orders, Responses, and quotes at the price point will participate in the execution of the facilitation order based upon the percentage of the total number of contracts available at the facilitation price that is represented by the size of the order, Response or quote. An election to automatically match better prices cannot be cancelled or altered during the exposure period.

(iv) If a trading halt is initiated after an order is entered into the Facilitation Mechanism, such auction will be automatically terminated without execution.

(c) Reserved.

(d) *Solicited Order Mechanism.* The Solicited Order Mechanism is a process by which an Electronic Access Member can attempt to execute orders of 500 or more contracts it represents as agent (the "Agency Order") against contra orders that it solicited. Each order entered into the Solicited Order Mechanism shall be designated as all-or-none.

(1) Upon entry of both orders into the Solicited Order Mechanism at a proposed execution price, a broadcast message that includes the series, price and size of the Agency Order, and whether it is to buy or sell, will be sent and Members will be given an opportunity to enter Responses with the prices and sizes at which they would be willing to participate in the execution of the Agency Order.

(2) At the end of the period given Members to enter Responses, the Agency Order will be automatically executed in full or cancelled.

(i) If at the time of execution there is insufficient size to execute the entire Agency Order at an improved price (or prices), the Agency Order will be executed against the solicited order at the proposed execution price so long as, at the time of execution: (A) the execution price is equal to or better than the best bid or offer on the Exchange, and (B) there are no Priority Customer Orders on the Exchange that are priced equal to the proposed execution price. If there are Priority Customer Orders on the Exchange on the opposite side of the Agency Order at the proposed execution price and there is sufficient size to execute the entire size of the Agency Order, the Agency Order will be executed against the bid or offer, and the solicited order will be cancelled. The aggregate size of all orders, quotes and Responses at the bid or offer will be used to determine whether the entire Agency Order can be executed. Both the solicited order and Agency Order will be cancelled if an execution would take place at a price that is inferior to the best bid or offer on the Exchange, or if there is a Priority Customer on the book at the proposed execution price but there is insufficient size on the Exchange to execute the entire Agency Order.

(ii) If at the time of execution there is sufficient size to execute the entire Agency Order at an improved price (or prices), the Agency Order will be executed at the improved price(s), subject to the condition in (i)(A), and the solicited order will be cancelled. The aggregate size of all orders, quotes and Responses at each price will be used to determine whether the entire agency order can be executed at an improved price (or prices).

(iii) When executing the Agency Order against the bid or offer in accordance with paragraph (i) above, or at an improved price in accordance with paragraph (ii) above, Priority Customer Orders will be executed first. Professional Orders and market maker quotes participate in the execution of the Agency Order based upon the percentage of the total number of contracts available at the best price that is represented by the size of the Professional Order or market maker quote.

(iv) If a trading halt is initiated after an order is entered into the Solicited Order Mechanism, such auction will be automatically terminated without execution.

(3) Prior to entering Agency Orders into the Solicited Order Mechanism on behalf of a customer, EAMs must deliver to the customer a written notification informing the customer that its order may be executed using the Exchange's Solicited Order Mechanism. Such written notification must disclose the terms and conditions contained in this Rule and must be in a form approved by the Exchange.

Supplementary Material to Rule 716

.01 It will be a violation of a Member's duty of best execution to its customer if it were to cancel a facilitation order to avoid execution of the order at a better price. The availability of the Facilitation Mechanism does not alter a Member's best execution duty to get the best price for its customer. Accordingly, while facilitation orders can be canceled during the time period given for the entry of Responses, if a Member were to cancel a facilitation order when there was a superior price available on the Exchange and subsequently re-enter the facilitation order at the same facilitation price after the better price was no longer available without attempting to obtain that better price for its customer, there would be a presumption that the Member did so to avoid execution of its customer order in whole or in part by other brokers at the better price.

.02 Responses represent non-firm interest that can be canceled at any time prior to execution. Responses are not displayed to any market participants.

.03 Under paragraph (d) above, Members may enter contra orders that are solicited. The Solicited Order Mechanism provides a facility for Members that locate liquidity for their customer orders. Members may not use the Solicited Order Mechanism to circumvent Exchange Rule 717(d) limiting principal transactions. This may include, but is not limited to, Members entering contra orders that are solicited from (1) affiliated broker-dealers, or (2) broker-dealers with which the Member has an arrangement that allows the Member to realize similar economic benefits from the solicited transaction as it would achieve by executing the customer order in whole or in part as principal. Additionally, any solicited contra orders entered by Members to trade against Agency Orders may not be for the account of an Exchange market maker that is assigned to the options class.

.04 Split Prices. Orders and Responses may be entered into the Facilitation and Solicitation Mechanisms and receive executions at the mid-price between the standard minimum trading increments for the options series ("Split Prices"). This means that orders and Responses for options with a minimum increment of 5 cents may be entered into the Facilitation and Solicitation Mechanisms and receive executions in 2.5 cent increments (e.g., \$1.025, \$1.05, \$1.075, etc.), and that orders and Responses for options with a minimum increment of 10 cents may be entered into the Facilitation and Solicitation Mechanism and receive executions at 5 cent increments (e.g., \$4.05, \$4.10, \$4.15, etc.). Orders and quotes in the market that receive the benefit of the facilitation price under paragraph (b) may also receive executions at Split Prices.

.05 Penny Prices. Orders and Responses may be entered into the Block Mechanism and receive executions at penny increments. Orders and quotes in the market that receive the benefit of the block execution price under paragraph (a)(2)(i) may also receive executions at penny increments.

Rule 717. Limitations on Orders

(a) Reserved.

(b) Limit Orders.

Electronic Access Members shall not enter Priority 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) Reserved.

(d) Principal Transactions.

Electronic Access Members may not execute as principal orders they represent as agent unless (i) agency orders are first exposed on the Exchange for at least one (1) second, (ii) the Electronic Access Member has been bidding or offering on the Exchange for at least one (1) second prior to receiving an agency order that is executable against such bid or offer, or (iii) the Member utilizes the Facilitation Mechanism pursuant to Rule 716(d), or (iv) the Member utilizes the Price Improvement Mechanism for Crossing Transactions pursuant to Rule 723.

(e) Solicitation Orders.

Electronic Access Members may not execute orders they represent as agent on the Exchange against orders solicited from Members and non-member broker-dealers to transact with such orders unless (i) the unsolicited order is first exposed on the Exchange for at least one (1) second, (ii) the Member utilizes the Solicited Order Mechanism pursuant to Rule 716(e), (iii) the Member utilizes the Facilitation Mechanism pursuant to Rule 716(d) or (iv) the Member utilizes the Price Improvement Mechanism for Crossing Transactions pursuant to Rule 723.

(f) Reserved.

(g) Orders for the Account of Another Member.

Electronic Access Members shall not cause the entry of orders for the account of an Exchange market maker that is exempt from the provisions of Regulation T of the Board of Governors of the Federal Reserve System pursuant to Section 7(c)(2) of the Exchange Act unless such orders are identified as orders for the account of an Exchange market maker in the manner prescribed by the Exchange.

Supplementary Material to Rule 717

.01 Rule 717(d) prevents an Electronic Access Member from executing agency orders to increase its economic gain from trading against the order without first giving other trading interest on the Exchange an opportunity to either trade with the agency order or to trade at the execution price when the Member was already bidding or offering on the book. However, the Exchange recognizes that it may be possible for an Electronic Access Member to establish a relationship with a customer or other person (including affiliates) to deny agency orders the opportunity to interact on the Exchange and to realize similar economic benefits as it would achieve by executing agency orders as principal. It will be a violation of Rule 717(d) for an Electronic Access Member to be a party to any arrangement designed to circumvent Rule 717(d) by providing an opportunity for a customer or other person (including affiliates) to regularly execute against agency orders handled by the Electronic Access Member immediately upon their entry into the System.

.02 It will be a violation of Rule 717(e) for an Electronic Access Member to cause the execution of an order it represents as agent on the Exchange by orders it solicited from Members and non-member broker-dealers to transact with such orders, whether such solicited orders are entered into the System directly by the Electronic Access Member or by the solicited party (either directly or through another Member), if the Member fails to expose orders on the Exchange as required by Rule 717(e).

.03 Reserved

.04 Reserved.

.05 With respect to the non-displayed reserve portion of a reserve order, the exposure requirement of paragraphs (d) and (e) are satisfied if the displayable portion of the reserve order is displayed at its displayable price for one second.

.06 The exposure requirement of paragraph (d) and (e) of Rule 717 applies to the entry of orders with knowledge that there is a pre-existing unexecuted agency, proprietary, or solicited order on the Exchange. Members may demonstrate that orders were entered without knowledge by providing evidence that effective information barriers between the persons, business units and/or systems entering the orders onto the Exchange were in existence at the time the orders were entered. Such information barriers must be fully documented and provided to the Exchange upon request.

Rule 718. Data Feeds and Trade Information

(a) The following data feeds contain ISE trading information offered by GEMX:

(1) Nasdaq GEMX Depth of Market Data Feed ("Depth of Market Feed") provides aggregate quotes and orders at the top five price levels on GEMX, and provides subscribers with a consolidated view of tradable prices beyond the BBO, showing additional liquidity and enhancing transparency for GEMX traded options. The data provided for each option series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on ISE and identifies if the series is available for closing transactions only. In addition, subscribers are

provided with total aggregate quantity, Public Customer aggregate quantity, Priority Customer aggregate quantity, price, and side (i.e., bid/ask). This information is provided for each of the top five price levels on the Depth Feed. The feed also provides order imbalances on opening/reopening.

(2) Nasdaq GEMX Order Feed ("Order Feed") provides information on new orders resting on the book (e.g. price, quantity and market participant capacity). In addition, the feed also announces all auctions. The data provided for each option series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on GEMX and identifies if the series is available for closing transactions only. The feed also provides order imbalances on opening/reopening.

(3) Nasdaq GEMX Top Quote Feed ("Top Quote Feed") calculates and disseminates GEMX's best bid and offer position, with aggregated size (including total size in aggregate, for Professional Order size in the aggregate and Priority Customer Order size in the aggregate), based on displayable order and quote interest in the System. The feed also provides last trade information along with opening price, daily trading volume, high and low prices for the day. The data provided for each option series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on GEMX and identifies if the series is available for closing transactions only. The feed also provides order imbalances on opening/reopening.

(4) Nasdaq GEMX Trades Feed ("Trades Feed") displays last trade information along with opening price, daily trading volume, high and low prices for the day. The data provided for each option series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on GEMX and identifies if the series is available for closing transactions only.

(b) The following order and execution information is available to Members:

(1) Clearing Trade Interface ("CTI") is a real-time cleared trade update message that is sent to a Member after an execution has occurred and contains trade details specific to that Member. The information includes, among other things, the following: (i) The Clearing Member Trade Agreement ("CMTA") or The Options Clearing Corporation ("OCC") number; (ii) badge or mnemonic; (iii) account number; (iv) information which identifies the transaction type (e.g. auction type) for billing purposes; and (v) market participant capacity.

(2) TradeInfo, a user interface, permits a Member to: (i) search all orders submitted in a particular security or all orders of a particular type, regardless of their status (open, canceled, executed, etc.); (ii) view orders and executions; and (iii) download orders and executions for recordkeeping purposes. TradeInfo users may also cancel open orders at the order, port or firm mnemonic level through TradeInfo.

(3) FIX DROP is a real-time order and execution update message that is sent to a Member after an order been received/modified or an execution has occurred and contains trade details specific

to that Member. The information includes, among other things, the following: (i) executions; (ii) cancellations; (iii) modifications to an existing order; and (iv) busts or post-trade corrections.

Rule 719. Transaction Price Binding

The price at which an order is executed shall be binding notwithstanding that an erroneous report in respect thereto may have been rendered, or no report rendered. A report shall not be binding if an order was not actually executed but was reported to have been executed in error.

Rule 720. Nullification and Adjustment of Options Transactions including Obvious Errors

The Exchange may nullify a transaction or adjust the execution price of a transaction in accordance with this Rule. However, the determination as to whether a trade was executed at an erroneous price may be made by mutual agreement of the affected parties to a particular transaction. A trade may be nullified or adjusted on the terms that all parties to a particular transaction agree, provided, however, that such agreement to nullify or adjust must be conveyed to the Exchange in a manner prescribed by the Exchange prior to 8:30 a.m. Eastern Time on the first trading day following the execution. It is considered conduct inconsistent with just and equitable principles of trade for any Member to use the mutual adjustment process to circumvent any applicable Exchange rule, the Act or any of the rules and regulations thereunder.

(a) Definitions.

(1) Customer. For purposes of this Rule, Customer has the same definition as Priority Customer in Rule 100(a)(51).

(2) Erroneous Sell/Buy Transaction. For purposes of this Rule, an "erroneous sell transaction" is one in which the price received by the person selling the option is erroneously low, and an "erroneous buy transaction" is one in which the price paid by the person purchasing the option is erroneously high.

(3) Official. For purposes of this Rule, an Official is an Officer of the Exchange or such other employee designee of the Exchange that is trained in the application of this Rule.

(4) Size Adjustment Modifier. For purposes of this Rule, the Size Adjustment Modifier will be applied to individual transactions as follows:

Number of Contracts per Execution	Adjustment - TP Plus/Minus
1-50	N/A
51-250	2 times adjustment amount

251-1000

2.5 times adjustment amount

1001 or more

3 times adjustment amount

(b) Theoretical Price. Upon receipt of a request for review and prior to any review of a transaction execution price, the "Theoretical Price" for the option must be determined. For purposes of this Rule, if the applicable option series is traded on at least one other options exchange, then the Theoretical Price of an option series is the last NBB just prior to the trade in question with respect to an erroneous sell transaction or the last NBO just prior to the trade in question with respect to an erroneous buy transaction unless one of the exceptions in sub-paragraphs (b)(1) through (3) below exists. For purposes of this provision, when a single order received by the Exchange is executed at multiple price levels, the last NBB and last NBO just prior to the trade in question would be the last NBB and last NBO just prior to the Exchange's receipt of the order. The Exchange will rely on this paragraph (b) and Commentary .04 of this Rule when determining Theoretical Price.

(1) Transactions at the Open. For a transaction occurring during the opening rotation (see Rule 701) the Exchange will determine the Theoretical Price if there is no NBB or NBO for the affected series just prior to the erroneous transaction or if the bid/ask differential of the NBB and NBO just prior to the erroneous transaction is equal to or greater than the Minimum Amount set forth in the chart contained in sub-paragraph (b)(3) below. If the bid/ask differential is less than the Minimum Amount, the Theoretical Price is the NBB or NBO just prior to the erroneous transaction.

(2) No Valid Quotes. The Exchange will determine the Theoretical Price if there are no quotes or no valid quotes for comparison purposes. Quotes that are not valid are:

(A) all quotes in the applicable option series published at a time where the last NBB is higher than the last NBO in such series (a "crossed market");

(B) quotes published by the Exchange that were submitted by either party to the transaction in question;

(C) quotes published by another options exchange if either party to the transaction in question submitted the quotes in the series representing such options exchange's best bid or offer, provided that the Exchange will only consider quotes invalid on other options exchanges in up to twenty-five (25) total options series that the party identifies to the Exchange the quotes which were submitted by such party and published by other options exchanges; and

(D) quotes published by another options exchange against which the Exchange has declared self-help.

(3) Wide Quotes. The Exchange will determine the Theoretical Price if the bid/ask differential of the NBB and NBO for the affected series just prior to the erroneous transaction was equal to or

greater than the Minimum Amount set forth below and there was a bid/ask differential less than the Minimum Amount during the 10 seconds prior to the transaction. If there was no bid/ask differential less than the Minimum Amount during the 10 seconds prior to the transaction then the Theoretical Price of an option series is the last NBB or NBO just prior to the transaction in question, as set forth in paragraph (b) above.

Bid Price at Time of Trade	Minimum Amount
Below \$2.00	\$0.75
\$2.00 to \$5.00	\$1.25
Above \$5.00 to \$10.00	\$1.50
Above \$10.00 to \$20.00	\$2.50
Above \$20.00 to \$50.00	\$3.00
Above \$50.00 to \$100.00	\$4.50
Above \$100.00	\$6.00

(c) Obvious Errors.

(1) Definition. For purposes of this Rule, an Obvious Error will be deemed to have occurred when the Exchange receives a properly submitted filing where the execution price of a transaction is higher or lower than the Theoretical Price for the series by an amount equal to at least the amount shown below:

Theoretical Price	Minimum Amount
Below \$2.00	\$0.25

\$2.00 to \$5.00	\$0.40
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Above \$5.00 to \$10.00	\$0.50
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Above \$10.00 to \$20.00	\$0.80
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Above \$20.00 to \$50.00	\$1.00
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Above \$50.00 to \$100.00	\$1.50
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Above \$100.00	\$2.00
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(2) Time Deadline. A party that believes that it participated in a transaction that was the result of an Obvious Error must notify the Exchange's Market Control in the manner specified from time to time by the Exchange in a circular distributed to Members. Such notification must be received by the Exchange's Market Control within the timeframes specified below:

(A) Customer Orders. For an execution of a Customer order, a filing must be received by the Exchange within thirty (30) minutes of the execution, subject to sub-paragraph (C) below; and

(B) "Non-Customer" Orders. For an execution of any order other than a Customer order, a filing must be received by the Exchange within fifteen (15) minutes of the execution, subject to sub-paragraph (C) below.

(C) Linkage Trades. Any other options exchange will have a total of forty-five (45) minutes for Customer orders and thirty (30) minutes for non-Customer orders, measured from the time of execution on the Exchange, to file with the Exchange for review of transactions routed to the Exchange from that options exchange and executed on the Exchange ("linkage trades"). This includes filings on behalf of another options exchange filed by a third-party routing broker if such third-party broker identifies the affected transactions as linkage trades. In order to facilitate timely reviews of linkage trades the Exchange will accept filings from either the other options exchange or, if applicable, the third-party routing broker that routed the applicable order(s). The additional fifteen (15) minutes provided with respect to linkage trades shall only apply to the extent the options exchange that originally received and routed the order to the Exchange itself received a timely filing from the entering participant (i.e., within 30 minutes if a Customer order or 15 minutes if a non-Customer order).

(3) Official Acting on Own Motion. An Official may review a transaction believed to be erroneous on his/her own motion in the interest of maintaining a fair and orderly market and for the protection of investors. A transaction reviewed pursuant to this paragraph may be nullified or adjusted only if it is determined by the Official that the transaction is erroneous in accordance

with the provisions of this Rule, provided that the time deadlines of sub-paragraph (c)(2) above shall not apply. The Official shall act as soon as possible after becoming aware of the transaction, and ordinarily would be expected to act on the same day that the transaction occurred. In no event shall the Official act later than 8:30 a.m. Eastern Time on the next trading day following the date of the transaction in question. A party affected by a determination to nullify or adjust a transaction pursuant to this provision may appeal such determination in accordance with paragraph (k) below; however, a determination by an Official not to review a transaction or determination not to nullify or adjust a transaction for which a review was conducted on an Official's own motion is not appealable. If a transaction is reviewed and a determination is rendered pursuant to another provision of this Rule, no additional relief may be granted under this provision.

(4) *Adjust or Bust.* If it is determined that an Obvious Error has occurred, the Exchange shall take one of the actions listed below. Upon taking final action, the Exchange shall promptly notify both parties to the trade electronically or via telephone.

(A) *Non-Customer Transactions.* Where neither party to the transaction is a Customer, the execution price of the transaction will be adjusted by the Official pursuant to the table below. Any non-Customer Obvious Error exceeding 50 contracts will be subject to the Size Adjustment Modifier defined in sub-paragraph (a)(4) above.

Theoretical Price (TP)	Buy Transaction Adjustment - TP Plus	Sell Transaction Adjustment - TP Minus
Below \$3.00	\$0.15	\$0.15
At or above \$3.00	\$0.30	\$0.30

(B) *Customer Transactions.* Where at least one party to the Obvious Error is a Customer, the trade will be nullified, subject to subparagraph (C) below.

(C) If any Member submits requests to the Exchange for review of transactions pursuant to this rule, and in aggregate that Member has 200 or more Customer transactions under review concurrently and the orders resulting in such transactions were submitted during the course of 2 minutes or less, where at least one party to the Obvious Error is a non-Customer, the Exchange will apply the non-Customer adjustment criteria set forth in sub-paragraph (A) above to such transactions.

(d) *Catastrophic Errors.*

(1) Definition. For purposes of this Rule, a Catastrophic Error will be deemed to have occurred when the execution price of a transaction is higher or lower than the Theoretical Price for the series by an amount equal to at least the amount shown below:

Theoretical Price	Minimum Amount
Below \$2.00	\$0.50
\$2.00 to \$5.00	\$1.00
Above \$5.00 to \$10.00	\$1.50
Above \$10.00 to \$20.00	\$2.00
Above \$20.00 to \$50.00	\$2.50
Above \$50.00 to \$100.00	\$3.00
Above \$100.00	\$4.00

(2) Time Deadline. A party that believes that it participated in a transaction that was the result of a Catastrophic Error must notify the Exchange's Market Control in the manner specified from time to time by the Exchange in a circular distributed to Members. Such notification must be received by the Exchange's Market Control by 8:30 a.m. Eastern Time on the first trading day following the execution. For transactions in an expiring options series that take place on an expiration day, a party must notify the Exchange's Market Control within 45 minutes after the close of trading that same day.

(3) Adjust or Bust. If it is determined that a Catastrophic Error has occurred, the Exchange shall take action as set forth below. Upon taking final action, the Exchange shall promptly notify both parties to the trade electronically or via telephone. In the event of a Catastrophic Error, the execution price of the transaction will be adjusted by the Official pursuant to the table below. Any Customer order subject to this sub-paragraph will be nullified if the adjustment would result in an execution price higher (for buy transactions) or lower (for sell transactions) than the Customer's limit price.

Theoretical Price (TP)	Buy Transaction Adjustment - TP Plus	Sell Transaction Adjustment - TP Minus
Below \$2.00	\$0.50	\$0.50
\$2.00 to \$5.00	\$1.00	\$1.00
Above \$5.00 to \$10.00	\$1.50	\$1.50
Above \$10.00 to \$20.00	\$2.00	\$2.00
Above \$20.00 to \$50.00	\$2.50	\$2.50
Above \$50.00 to \$100.00	\$3.00	\$3.00
Above \$100.00	\$4.00	\$4.00

(e) Significant Market Events.

(1) Definition. For purposes of this Rule, a Significant Market Event will be deemed to have occurred when: criterion (A) below is met or exceeded or the sum of all applicable event statistics, where each is expressed as a percentage of the relevant threshold in criteria (A) through (D) below, is greater than or equal to 150% and 75% or more of at least one category is reached, provided that no single category can contribute more than 100% to the sum and any category contributing more than 100% will be rounded down to 100%. All criteria set forth below will be measured in aggregate across all exchanges.

(A) Transactions that are potentially erroneous would result in a total Worst-Case Adjustment Penalty of \$30,000,000, where the Worst- Case Adjustment Penalty is computed as the sum, across all potentially erroneous trades, of:

- (i) \$0.30 (i.e., the largest Transaction Adjustment value listed in sub-paragraph (e)(3)(A) below); times

(ii) the contract multiplier for each traded contract; times

(iii) the number of contracts for each trade; times

(iv) the appropriate Size Adjustment Modifier for each trade, if any, as defined in sub-paragraph (e)(3)(A) below.

(B) Transactions involving 500,000 options contracts are potentially erroneous;

(C) Transactions with a notional value (i.e., number of contracts traded multiplied by the option premium multiplied by the contract multiplier) of \$100,000,000 are potentially erroneous;

(D) 10,000 transactions are potentially erroneous.

(2) Coordination with Other Options Exchanges. To ensure consistent application across options exchanges, in the event of a suspected Significant Market Event, the Exchange shall initiate a coordinated review of potentially erroneous transactions with all other affected options exchanges to determine the full scope of the event. When this paragraph is invoked, the Exchange will promptly coordinate with the other options exchanges to determine the appropriate review period as well as select one or more specific points in time prior to the transactions in question and use one or more specific points in time to determine Theoretical Price. Other than the selected points in time, if applicable, the Exchange will determine Theoretical Price in accordance with paragraph (b) above.

(3) Adjust or Bust. If it is determined that a Significant Market Event has occurred then, using the parameters agreed as set forth in sub-paragraph (e)(2) above, if applicable, an Official will determine whether any or all transactions under review qualify as Obvious Errors. The Exchange shall take one of the actions listed below with respect to all transactions that qualify as Obvious Errors pursuant to sub-paragraph (c)(1) above. Upon taking final action, the Exchange shall promptly notify both parties to the trade electronically or via telephone.

(A) The execution price of each affected transaction will be adjusted by an Official to the price provided below unless both parties agree to adjust the transaction to a different price or agree to bust the trade. In the context of a Significant Market Event, any error exceeding 50 contracts will be subject to the Size Adjustment Modifier defined in subparagraph (a)(4) above.

Theoretical Price (TP)	Buy Transaction Adjustment - TP Plus	Sell Transaction Adjustment - TP Minus
Below \$3.00	\$0.15	\$0.15
At or above \$3.00	\$0.30	\$0.30

(B) Where at least one party to the transaction is a Customer, the trade will be nullified if the adjustment would result in an execution price higher (for buy transactions) or lower (for sell transactions) than the Customer's limit price.

(4) Nullification of Transactions. If the Exchange, in consultation with other options exchanges, determines that timely adjustment is not feasible due to the extraordinary nature of the situation, then the Exchange will nullify some or all transactions arising out of the Significant Market Event during the review period selected by the Exchange and other options exchanges consistent with this paragraph. To the extent the Exchange, in consultation with other options exchanges, determines to nullify less than all transactions arising out of the Significant Market Event, those transactions subject to nullification will be selected based upon objective criteria with a view toward maintaining a fair and orderly market and the protection of investors and the public interest.

(5) Final Rulings. With respect to rulings made pursuant to this paragraph, the number of affected transactions is such that immediate finality is necessary to maintain a fair and orderly market and to protect investors and the public interest. Accordingly, rulings by the Exchange pursuant to this paragraph are non-appealable.

(f) Trading Halts. The Exchange shall nullify any transaction that occurs during a trading halt in the affected option on the Exchange pursuant to Rule 702.

(g) Erroneous Print in Underlying. A trade resulting from an erroneous print(s) disseminated by the underlying market that is later nullified by that underlying market shall be adjusted or busted as set forth in sub-paragraph (c)(4) of this Rule, provided a party notifies the Exchange's Market Control in a timely manner as set forth below. For purposes of this paragraph, a trade resulting from an erroneous print(s) shall mean any options trade executed during a period of time for which one or more executions in the underlying security are nullified and for one second thereafter. If a party believes that it participated in an erroneous transaction resulting from an erroneous print(s) pursuant to this paragraph it must notify the Exchange's Market Control within the timeframes set forth in sub-paragraph (c)(2) above, with the allowed notification timeframe commencing at the time of notification by the underlying market(s) of nullification of transactions in the underlying security. If multiple underlying markets nullify trades in the underlying security, the allowed notification timeframe will commence at the time of the first market's notification.

(h) Erroneous Quote in Underlying. A trade resulting from an erroneous quote(s) in the underlying security shall be adjusted or busted as set forth in subparagraph (c)(4) this Rule, provided a party notifies the Exchange's Market Control in a timely manner as set forth below. An erroneous quote occurs when the underlying security has a width of at least \$1.00 and has a width at least five times greater than the average quote width for such underlying security during the time period encompassing two minutes before and after the dissemination of such quote. For purposes of this paragraph, the average quote width shall be determined by adding the quote widths of sample quotations at regular 15-second intervals during the four-minute time period referenced above (excluding the quote(s) in question) and dividing by the number of quotes

during such time period (excluding the quote(s) in question). If a party believes that it participated in an erroneous transaction resulting from an erroneous quote(s) pursuant to this paragraph it must notify the Exchange's Market Control in accordance with sub-paragraph (c)(2) above.

(i) *Stop (and Stop-Limit) Order Trades Triggered by Erroneous Trades.* Transactions resulting from the triggering of a stop or stop-limit order by an erroneous trade in an option contract shall be nullified by the Exchange, provided a party notifies the Exchange's Market Control in a timely manner as set forth below. If a party believes that it participated in an erroneous transaction pursuant to this paragraph it must notify the Exchange's Market Control within the timeframes set forth in sub-paragraph (c)(2) above, with the allowed notification timeframe commencing at the time of notification of the nullification of transaction(s) that triggered the stop or stop-limit order.

(j) *Linkage Trades.* If the Exchange routes an order pursuant to the Plan (as defined in Rule 1900(n)) that results in a transaction on another options exchange (a "Linkage Trade") and such options exchange subsequently nullifies or adjusts the Linkage Trade pursuant to its rules, the Exchange will perform all actions necessary to complete the nullification or adjustment of the Linkage Trade.

(k) *Appeals.* If a Member affected by a determination made under this Rule so requests within the time permitted below, an Exchange Review Council panel will review decisions made by the Official under this Rule, including whether an obvious error occurred and whether the correct determination was made.

(1) An Exchange Review Council panel will be comprised minimally of representatives of one (1) member engaged in market making and two (2) industry representatives not engaged in market making. At no time should a review panel have more than 50% members engaged in market making.

(2) A request for review on appeal must be made in writing via e-mail or other electronic means specified from time to time by the Exchange in a circular distributed to Members within thirty (30) minutes after the party making the appeal is given notification of the initial determination being appealed. The Exchange Review Council panel shall review the facts and render a decision as soon as practicable, but generally on the same trading day as the execution(s) under review. On requests for appeal received after 3:00 p.m. Eastern Time, a decision will be rendered as soon as practicable, but in no case later than the trading day following the date of the execution under review.

(3) The Exchange Review Council panel may overturn or modify an action taken by the Official under this Rule. All determinations by the Exchange Review Council panel shall constitute final action by the Exchange on the matter at issue.

(4) If the Exchange Review Council panel votes to uphold the decision made pursuant to paragraph (k) above, the Exchange will assess a \$5,000.00 fee against the Member(s) who initiated the request for appeal. In addition, in instances where the Exchange, on behalf of a

Member, requests a determination by another market center that a transaction is clearly erroneous, the Exchange will pass any resulting charges through to the relevant Member.

(5) Any determination by an Official or by the Exchange Review Council panel shall be rendered without prejudice as to the rights of the parties to the transaction to submit their dispute to arbitration.

Supplementary Material to Rule 720

.01 Limit Up-Limit Down State. During a pilot period set that expires at the close of business on October 18, 2019, an execution will not be subject to review as an Obvious Error or Catastrophic Error pursuant to paragraph (c) or (d) of this Rule if it occurred while the underlying security was in a "Limit State" or "Straddle State," as defined in the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS under the Act (the "Limit Up-Limit Down Plan"). Nothing in this provision shall prevent such execution from being reviewed on an Official's own motion pursuant to sub-paragraph (c)(3) of this Rule, or a bust or adjust pursuant to paragraphs (e) through (j) of this Rule.

.02 For the purposes of this Rule, to the extent the provisions of this Rule would result in the Exchange applying an adjustment of an erroneous sell transaction to a price lower than the execution price or an erroneous buy transaction to a price higher than the execution price, the Exchange will not adjust or nullify the transaction, but rather, the execution price will stand.

.03 When Market Control determines that an Error has occurred and action is warranted under paragraphs (c) or (d) above, the identity of the parties to the trade will be disclosed to each other in order to encourage conflict resolution.

.04 Exchange Determining Theoretical Price. For purposes of this Rule, when the Exchange must determine Theoretical Price pursuant to sub-paragraphs (b)(1)-(3) of this Rule (i.e., at the open, when there are no valid quotes or when there is a wide quote), then the Exchange will determine Theoretical Price as follows.

(a) The Exchange will request Theoretical Price from the third party vendor defined in paragraph (d) below ("TP Provider") to which the Exchange and all other options exchanges have subscribed. The Exchange will apply the Theoretical Price provided by the TP Provider, except as otherwise described below.

(b) To the extent an Official of the Exchange believes that the Theoretical Price provided by the TP Provider is fundamentally incorrect and cannot be used consistent with the maintenance of a fair and orderly market, the Official shall contact the TP Provider to notify the TP Provider of the reason the Official believes such Theoretical Price is inaccurate and to request a review and correction of the calculated Theoretical Price. The Exchange shall also promptly provide electronic notice to other options exchanges that the TP Provider has been contacted consistent with this paragraph and include a brief explanation of the reason for the request.

(c) An Official of the Exchange may determine the Theoretical Price if the TP Provider has experienced a systems issue that has rendered its services unavailable to accurately calculate Theoretical Price and such issue cannot be corrected in a timely manner.

(d) The current TP Provider to which the Exchange and all other options exchanges have subscribed is: CBOE Livevol, LLC. Neither the Exchange, the TP Provider, nor any affiliate of the TP Provider (the TP Provider and its affiliates are referred to collectively as the "TP Provider"), makes any warranty, express or implied, as to the results to be obtained by any person or entity from the use of the TP Provider pursuant to this Commentary .04. The TP Provider does not guarantee the accuracy or completeness of the calculated Theoretical Price. The TP Provider disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to such Theoretical Price. Neither the Exchange nor the TP Provider shall have any liability for any damages, claims, losses (including any indirect or consequential losses), expenses, or delays, whether direct or indirect, foreseen or unforeseen, suffered by any person arising out of any circumstance or occurrence relating to the use of such Theoretical Price or arising out of any errors or delays in calculating such Theoretical Price.

Rule 720A. Erroneous Trades due to System Disruptions and Malfunctions

(a) *Verifiable Disruptions or Malfunctions of Exchange Systems.*

(1) Transactions arising out of a "verifiable disruption or malfunction" in the use or operation of any Exchange automated quotation, dissemination, execution, or communication system may either be nullified or adjusted by Market Control. Transactions that qualify for price adjustment will be adjusted in accordance with the guidelines contained in Rule 720(b)(2)(i)(A) and (B).

(2) Absent extraordinary circumstances, any such action by Market Control pursuant to this Rule shall be initiated within sixty (60) minutes of the occurrence of the erroneous transaction that resulted from a verifiable disruption or malfunction. Each member involved in the transaction shall be notified as soon as practicable.

(3) Any member aggrieved by the action of Market Control taken pursuant to paragraph (1) above may appeal such action in accordance with the provisions of subsection (b).

(b) *Procedures for Review of Decisions Made Pursuant to Rule 720A(a).*

(1) If a party to a ruling by Market Control made pursuant to subsection (a) of this Rule requests within the time permitted below, an Exchange Review Council panel will be utilized to review decisions made by Market Control under this Rule.

(i) An Exchange Review Council panel will be comprised minimally of representatives of one (1) member engaged in market making and two (2) industry representatives not engaged in market making. At no time should a review panel have more than 50% members engaged in market making.

(ii) A request for review on appeal must be made via facsimile or e-mail within thirty (30) minutes after the party making the appeal is given notification of the initial determination being

appealed. The Exchange Review Council panel shall review the facts and render a decision within the time frame prescribed by the Exchange.

(iii) The Exchange Review Council panel may overturn or modify an action taken by the Exchange under this Rule. All determinations by the Exchange Review Council panel shall constitute final action by the Exchange on the matter at issue.

[Amended July 24, 2014 (SR-ISE Gemini-2014-18); amended July 12, 2018 (SR-GEMX-2018-24), operative August 23, 2018.]

Rule 721. Crossing Orders

(a) Customer Cross Orders. Customer Cross Orders are automatically executed upon entry provided that the execution is at or between the best bid and offer on the Exchange and (i) is not at the same price as a Priority Customer Order on the Exchange's limit order book and (ii) will not trade through the NBBO.

(1) Customer Cross Orders will be automatically canceled if they cannot be executed.

(2) Customer Cross Orders may only be entered in the regular trading increments applicable to the options class under Rule 710.

(3) Supplementary Material .01 to Rule 717 applies to the entry and execution of Customer Cross Orders.

(b) Reserved.

(c) Qualified Contingent Cross Orders. Qualified Contingent Cross Orders are automatically executed upon entry provided that the execution (i) is not at the same price as a Priority Customer Order on the Exchange's limit order book and (ii) is at or between the NBBO.

(1) Qualified Contingent Cross Orders will be automatically canceled if they cannot be executed.

(2) Qualified Contingent Cross Orders may only be entered in the regular trading increments applicable to the options class under in Rule 710.

Rule 722. Reserved.

Rule 723. Price Improvement Mechanism for Crossing Transactions

(a) The Price Improvement Mechanism is a process by which an Electronic Access Member can provide price improvement opportunities for a transaction wherein the Electronic Access Member seeks to facilitate an order it represents as agent, and/or a transaction wherein the Electronic Access Member solicited interest to execute against an order it represents as agent (a "Crossing Transaction").

(b) Crossing Transaction Entry. A Crossing Transaction is comprised of the order the Electronic Access Member represents as agent (the "Agency Order") and a counter-side order for the full size of the Agency Order (the "Counter-Side Order"). The Counter-Side Order may represent

interest for the Member's own account, or interest the Member has solicited from one or more other parties, or a combination of both.

- (1) If the Agency Order is for less than 50 option contracts, and if the difference between the National Best Bid and National Best Offer ("NBBO") is \$0.01, the Crossing Transaction must be entered at one minimum price improvement increment better than the NBBO on the opposite side of the market from the Agency Order and better than the limit order or quote on the Nasdaq GEMX order book on the same side of the Agency Order.
- (2) If the Agency Order is for 50 option contracts or more, or if the difference between the NBBO is greater than \$0.01, a Crossing Transaction must be entered only at a price that is equal to or better than the national best bid or offer ("NBBO") and better than the limit order or quote on the Nasdaq GEMX order book on the same side of the Agency Order.
- (3) The Crossing Transaction may be priced in one-cent increments.
- (4) The Crossing Transaction may not be canceled, but the price of the Counter-Side Order may be improved during the exposure period.

(c) **Exposure Period.** Upon entry of a Crossing Transaction into the Price Improvement Mechanism, a broadcast message that includes the series, price and size of the Agency Order, and whether it is to buy or sell, will be sent to all Members. This broadcast message will not be included in the Exchange's disseminated best bid or offer and will not be disseminated through OPRA.

- (1) The Exchange will designate via circular a time of no less than 100 milliseconds and no more than 1 second for Members to indicate the size and price at which they want to participate in the execution of the Agency Order ("Improvement Orders").
- (2) Improvement Orders may be entered by all Members in one-cent increments at the same price as the Crossing Transaction or at an improved price for the Agency Order, and for any size up to the size of the Agency Order.
- (3) During the exposure period, Improvement Orders may not be canceled, but may be modified to (1) increase the size at the same price, or (2) improve the price of the Improvement Order for any size up to the size of the Agency Order.
- (4) During the exposure period, responses (including the Counter-Side Order, Improvement Orders, and any changes to either) submitted by Members shall not be visible to other auction participants.
- (5) The exposure period will automatically terminate (i) at the end of the time period designated by the Exchange pursuant to Rule 723(c)(1) above, (ii) upon the receipt of a market or marketable limit order on the Exchange in the same series, or (iii) upon the receipt of a non-marketable limit order in the same series on the same side of the market as the Agency Order that

would cause the price of the Crossing Transaction to be outside of the best bid or offer on the Exchange.

(d) Execution. At the end of the exposure period the Agency Order will be executed in full at the best prices available, taking into consideration orders and quotes in the Exchange market, Improvement Orders, and the Counter-Side Order. The Agency Order will receive executions at multiple price levels if there is insufficient size to execute the entire order at the best price.

(1) At a given price, "Priority Customer Interest" (Priority Customer Orders and Improvement Orders from Priority Customers) is executed in full before "Professional Interest" (Professional Orders, Improvement Orders from non- Priority Customers and Market Maker quotes).

(2) After Priority Customer Interest at a given price, Professional Interest will participate in the execution of the Agency Order based upon the percentage of the total number of contracts available at the price that is represented by the size of such interest.

(3) In the case where the Counter-Side Order is at the same price as Professional Interest in (d)(2), the Counter-Side order will be allocated the greater of one (1) contract or forty percent (40%) of the initial size of the Agency Order before Professional Interest is executed. Upon entry of Counter-Side orders, Members can elect to automatically match the price and size of orders, quotes and responses received during the exposure period up to a specified limit price or without specifying a limit price. In this case, the Counter-Side order will be allocated its full size at each price point, or at each price point within its limit price if a limit is specified, until a price point is reached where the balance of the order can be fully executed. At such price point, the Counter-Side order shall be allocated the greater of one contract or forty percent (40%) of the original size of the Agency Order, but only after Priority Customer Interest at such price point are executed in full. Thereafter, all Professional Interest at the price point will participate in the execution of the Agency Order based upon the percentage of the total number of contracts available at the price that is represented by the size of the Professional Interest. An election to automatically match better prices cannot be cancelled or altered during the exposure period.

(4) When a market order or marketable limit order on the opposite side of the market from the Agency Order ends the exposure period, it will participate in the execution of the Agency Order at the price that is mid-way between the best counter-side interest and the NBBO, so that both the market or marketable limit order and the Agency Order receive price improvement. Transactions will be rounded, when necessary, to the \$.01 increment that favors the Agency Order.

(5) If a trading halt is initiated after an order is entered into the Price Improvement Mechanism, such auction will be automatically terminated without execution.

Supplementary Material to Rule 723

.01 It shall be considered conduct inconsistent with just and equitable principles of trade for any Member to enter orders, quotes, Agency Orders, Counter-Side Orders or Improvement Orders for the purpose of disrupting or manipulating the Price Improvement Mechanism. Such conduct

includes, but is not limited to, engaging in a pattern of conduct where the Member submitting the Agency Order into the PIM breaks-up the Agency Order into separate orders for two (2) or fewer contracts for the purpose of gaining a higher allocation percentage than the Member would have otherwise received in accordance with the allocation procedures contained in paragraph (d) above.

.02 The Price Improvement Mechanism may only be used to execute bona fide Crossing Transactions.

.03 There will be no minimum size requirements for orders to be eligible for the Price Improvement Mechanism.

.04 Only one PIM may be ongoing at any given time in a series. PIMs will not queue or overlap in any manner.

.05 Pursuant to Rule 723(c)(2), Electronic Access Members may enter Improvement Orders for the account of Public Customers.

.06 Any solicited Counter-Side Orders submitted by an Electronic Access Member to trade against Agency Orders may not be for the account of an Exchange market maker assigned to the options class.

.07 Counter-Side Orders and Improvement Orders entered into the Price Improvement Mechanism only will execute against the Agency Order, and any unexecuted interest will be automatically cancelled.

.08 PIM ISO Order. A PIM ISO order (PIM ISO) is the transmission of two orders for crossing pursuant to Rule 723 without regard for better priced Protected Bids or Protected Offers (as defined in Rule 1900) because the Member transmitting the PIM ISO to the Exchange has, simultaneously with the routing of the PIM ISO, routed one or more ISOs, as necessary, to execute against the full displayed size of any Protected Bid or Protected Offer that is superior to the starting PIM auction price and has swept all interest in the Exchange's book priced better than the proposed auction starting price. Any execution(s) resulting from such sweeps shall accrue to the PIM order.

8. Market Makers

Rule 800. Registration of Market Makers

(a) A market maker is a Member with Designated Trading Representatives registered pursuant to Rule 801. Market makers are registered with the Exchange for the purpose of making transactions as dealer-specialists in accordance with the provisions of this Chapter. Registered market makers are designated as specialists on the Exchange for all purposes under the Exchange Act and the rules and regulations thereunder.

(b) To register as a Competitive or Primary Market Maker, a Member shall file an application in writing on such forms as the Exchange may prescribe. Applications shall be reviewed by the Exchange, which shall consider an applicant's market making ability and such other factors as

the Exchange deems appropriate. After reviewing the application, the Exchange shall either approve or disapprove the applicant's registration as a Competitive or Primary Market Maker.

(c) The registration of any Member as a Competitive or Primary Market Maker may be suspended or terminated by the Exchange upon a determination that such Member has failed to properly perform as a market maker.

Rule 801. Designated Trading Representatives

(a) Market maker quotations and orders may be submitted to the Exchange's System only by Designated Trading Representatives ("DTRs"). A DTR is permitted to enter quotes and orders only for the account of the market maker with which he is associated.

(b) *Registration of Designated Trading Representatives.* The Exchange may, upon receiving an application in writing from a market maker on a form prescribed by the Exchange, approve a person as a DTR.

(1) DTRs may be:

(i) individual Members registered with the Exchange as market makers, or

(ii) officers, partners, employees or associated persons of Members that are registered with the Exchange as market makers.

(2) The Exchange may require a market maker to provide additional information the Exchange considers necessary to establish whether a person should be approved.

(3) A person may be conditionally approved as a DTR subject to any conditions the Chief Regulatory Officer considers appropriate in the interests of maintaining a fair and orderly market.

(c) *Suspension or Withdrawal of Registration.*

(1) The Exchange may suspend or withdraw the registration previously given to a person to be a DTR if the Exchange determines that:

(i) the person has caused the market maker to fail to comply with the Rules of the Exchange;

(ii) the person is not properly performing the responsibilities of a DTR;

(iii) the person has failed to meet the conditions set forth under paragraph (b) above; or

(iv) the Exchange believes it is in the best interest of fair and orderly markets.

(2) If the Exchange suspends the registration of a person as a DTR, the market maker must not allow the person to submit quotes and orders into the Exchange's System.

(3) The registration of a DTR will be withdrawn upon the written request of the Member for which the DTR is registered. Such written request shall be submitted on the form prescribed by the Exchange.

Rule 802. Appointment of Market Makers

(a) In the manner prescribed by the Exchange, a market maker may seek appointment to one or more options classes traded on the Exchange. The Board or a committee designated by the Board shall appoint classes of options contracts traded on the Exchange to market makers taking into consideration: (i) the financial resources available to the market maker, (ii) the market maker's experience and expertise in market making or options trading, and (iii) the maintenance and enhancement of competition among market makers in each class of options contracts to which they are appointed. The Board or designated committee shall make appointments in the best interest of the Exchange to provide competitive markets. No appointment of a market maker shall be without the market maker's consent to such appointment, provided that refusal to accept an appointment may be deemed sufficient cause for termination or suspension of a market maker's registration.

(b) Appointments to Primary Market Makers. A Primary Market Maker shall be appointed to each options class traded on the Exchange.

(1) A Primary Market Maker seeking appointment to options on equity indexes, foreign currency indexes, foreign currency options and Exchange-Traded Fund Shares (collectively " Index-Based Products") shall provide, at the discretion of the Exchange, and upon its request, specific performance commitments, which shall include, at a minimum, commitments regarding (i) the average quotation size it will disseminate in the Index-Based Product, and (ii) the maximum quotation spread it will disseminate in such product at least ninety percent of the time.

(c) Appointments to Competitive Market Makers. Competitive market makers may request appointments to options classes traded on the Exchange, subject to the trading licensing requirements of Rule 2013 with respect to index options and Rule 2213 with respect to foreign currency options.

(1) On a quarterly basis, the Exchange shall assign points to each options class equal to its percentage of overall industry volume (not including exclusively traded index options), rounded down to the nearest one hundredth of a percentage with a maximum of 15 points. New listings will be assigned a point value of zero for the remainder of the quarter in which it was listed.

(2) A Competitive Market Maker may seek appointments to options classes that total: (A) 20 points for the first CMM Right it holds; and (B) 10 points for the second and each subsequent CMM Right it holds.

(3) A Competitive Market Maker may request changes to its appointments at any time upon advance notification to the Exchange in a form and manner prescribed by the Exchange.

(d) The Exchange may suspend or terminate any appointment of a market maker under this Rule and may make additional appointments whenever, in the Exchange's judgment, the interests of a

fair and orderly market are best served by such action. In the case of an Index-Based Product, during the term of that appointment, the Exchange may also base a decision to suspend or terminate a Primary Market Maker's appointment on the failure of the Primary Market Maker to meet the terms of its commitments under paragraph (b)(1) above.

(e) Market Maker Performance. In making appointments to market makers, the Exchange may evaluate the performance of market makers relating to, among other things, quality of markets, competition among market makers, observance of ethical standards, and administrative factors. The Exchange may consider any relevant information, including but not limited to the results of a market maker evaluation questionnaire, trading data, a market maker's regulatory history and such other factors and data as may be pertinent in the circumstances. Moreover, failure by a market maker to meet minimum performance standards may result in, among other things: (1) suspension, termination or restriction of an appointment to one or more of the options classes appointed to the market maker; (2) restriction of appointments to additional options classes; or (3) suspension, termination, or restriction of the market maker's registration.

Supplementary Material to Rule 802

.01 Index-Based Options. Pursuant to paragraph (b)(1) of Rule 802, a Primary Market Maker shall specify the average size and maximum quotation spread to which it will commit on a quarterly basis for four successive calendar quarters. The Primary Market Maker may specify differing size and quotation commitments for different series of an options class, such as by committing to a larger size and narrower quotations for the at-the-money series or series nearer to expiration. A Primary Market Maker also may, but is not required to, provide commitments regarding marketing or other support with respect to the Index-Based Product. In addition, a Primary Market Maker may, but is not required to, provide information regarding order flow arrangements with order flow providers. When an Index-Based Product is allocated to a Primary Market Maker, that Primary Market Maker's size and spread quotations for the fourth quarter following listing shall remain in effect thereafter on a quarter-to-quarter basis unless the Primary Market Maker has requested, and the Exchange or designated committee has approved, a change in such commitments. Any other commitments that a Primary Market Maker has made also shall remain in effect until modified by the Exchange or designated committee upon the request of the Primary Market Maker.

.02 A Member that is approved to act in the capacity of a Competitive Market Maker with respect to one or more CMM Rights may voluntarily be appointed to act as an "Alternative Primary Market Maker," so long as the Exchange has determined that such Member has the appropriate systems and procedures in place to undertake the responsibilities of a Primary Market Maker.

(a) The Exchange may appoint an Alternative Primary Market Maker to an options class only in the event that no Primary Market Makers seek allocation of the security.

(b) If no Primary Market Makers seek allocation of an options class, all eligible Competitive Market Makers will be given notice and an opportunity to seek allocation of the security as an

Alternative Primary Market Maker. Such allocations will be made by the Allocation Committee according to the guidelines contained in Rule 802.

(c) An Alternative Primary Market Maker shall have all of the responsibilities and privileges of a Primary Market Maker under the Rules with respect to all appointed options classes.

(d) If an Alternative Primary Market Maker ceases trading of an options class, the class will be reallocated by the Exchange to a Primary Market Maker or another Alternative Primary Market Maker, as appropriate.

.03 There is no restriction on a Competitive Market Maker seeking appointment to options classes in which it or an affiliated market-maker holds a Competitive Market Maker or Primary Market Maker appointment, provided that such Member has sufficient Competitive Market Maker points for each such appointment.

Rule 803. Obligations of Market Makers

(a) *General.* Transactions of a market maker should constitute a course of dealings reasonably calculated to contribute to the maintenance of a fair and orderly market, and market makers should not make bids or offers or enter into transactions that are inconsistent with such a course of dealings. Ordinarily, market makers are expected to:

(1) Refrain from purchasing a call option or a put option at a price more than \$0.25 below parity, although a larger amount may be appropriate considering the particular market conditions. In the case of calls, parity is measured by the bid in the underlying security, and in the case of puts, parity is measured by the offer in the underlying security.

(2) The \$0.25 amount above may be increased, or the provisions of this Rule may be waived, by the Exchange on a series-by-series basis.

(b) *Appointment.* With respect to each options class to which a market maker is appointed under Rule 802, the market maker has a continuous obligation to engage, to a reasonable degree under the existing circumstances, in dealings for his own account when there exists, or it is reasonably anticipated that there will exist, a lack of price continuity, a temporary disparity between the supply of and demand for a particular options contract, or a temporary distortion of the price relationships between options contracts of the same class. Without limiting the foregoing, a market maker is expected to perform the following activities in the course of maintaining a fair and orderly market:

(1) To compete with other market makers to improve the market in all series of options classes to which the market maker is appointed.

(2) To make markets that, absent changed market conditions, will be honored for the number of contracts entered into the Exchange's System in all series of options classes to which the market maker is appointed.

(3) To update market quotations in response to changed market conditions in all series of options classes to which the market maker is appointed.

(4) To price options contracts fairly by, among other things, bidding and offering so as to create differences of no more than \$5 between the bid and offer following the opening rotation in an equity or index options contract. The Exchange may establish differences other than the above for one or more series or classes of options.

(i) The bid/offer differentials stated in paragraph (b)(4) of this Rule shall not apply to in-the-money options series where the underlying securities market is wider than the differentials set forth above. For these series, the bid/ask differential may be as wide as the spread between the national best bid and offer in the underlying security.

(ii) The Exchange or its authorized agent may calculate bids and asks for various indices for the sole purpose of determining permissible bid/ask differentials on options on these indices. These values will be calculated by determining the weighted average of the bids and asks for the components of the corresponding index. These bids and asks will be disseminated by the Exchange at least every fifteen (15) seconds during the trading day solely for the purpose of determining the permissible bid/ask differential that market-makers may quote on an in-the-money option on the indices. For in-the-money series in index options where the calculated bid/ask differential is wider than the applicable differential set out in paragraph (b)(4) of this Rule, the bid/ask differential in the index options series may be as wide as the calculated bid/ask differential in the underlying index. The Exchange will not make a market in the basket of stock comprising the indices and is not guaranteeing the accuracy or the availability of the bid/ask values.

(c) Reserved.

(d) *Classes of Options To Which Not Appointed.* With respect to classes of options to which a market maker is not appointed, it should not engage in transactions for an account in which it has an interest that are disproportionate in relation to, or in derogation of, the performance of his obligations as specified in paragraph (b) above with respect to those classes of options to which it is appointed. Market makers should not:

(1) Individually or as a group, intentionally or unintentionally, dominate the market in options contracts of a particular class, or

(2) Effect purchases or sales on the Exchange except in a reasonable and orderly manner.

Supplementary Material to Rule 803

.01 A Primary Market Maker must act with due diligence in handling orders of Public Customers and must accord priority to such orders addressed pursuant to paragraph (c) of this Rule over the Primary Market Maker's principal orders.

.02 With respect to the Exchange's business continuity and disaster recovery plans, including its backup systems, the Exchange shall:

(a) Establish standards for the designation of those Members that the Exchange reasonably determines are, taken as a whole, the minimum necessary for the maintenance of fair and orderly markets in the event of the activation of such plans. Such standards may include volume-based and/or market share-based criteria, and may be adjusted from time to time by the Exchange. The Exchange will provide public notice of the standards.

(b) Designate Members pursuant to the standards established in paragraph (a) of this rule and require participation by such designated Members in scheduled functional and performance testing of the operation of such plans, in the manner and frequency specified by the Exchange, provided that such frequency shall not be less than once every 12 months. The Exchange will provide at least 6 months prior notice to Members that are designated for mandatory testing, and participation of such Members is a condition of membership.

Rule 804. Market Maker Quotations

(a) *Options Classes.* A quotation only may be entered by a market maker, and only in the options classes to which the market maker is appointed under Rule 802.

(b) *Price and Size Associated with Quotes.* A market maker's bid and offer for a series of options contracts shall state a price accompanied by the number of contracts at that price the market maker is willing to buy or sell upon receipt of an order or upon interaction with a quotation entered by another market maker on the Exchange.

(1) **Price.** The price of market maker quotes shall be in the minimum trading increments applicable to the security under Rule 710.

(2) **Size.** Unless the Exchange has declared a fast market pursuant to Rule 704, the initial size of a market maker's opening quote must be for the minimum number of contracts determined by the Exchange on a class by class basis, which minimum shall be at least one contract.

(c) *Two-Sided Quotes.* A market maker that enters a bid (offer) on the Exchange must enter an offer (bid) within the spread allowable under Rule 803(b)(4).

(d) *Firm Quotes.*

(1) Market maker bids and offers are firm for orders and Exchange market maker quotations both under this Rule and Rule 602 of Regulation NMS under the Exchange Act ("Rule 602 of Reg NMS") for the number of contracts specified according to the requirements of paragraph (b) above. Market maker bids and offers are not firm under this Rule and Rule 602 of Reg NMS if:

(i) a system malfunction or other circumstance impairs the Exchange's ability to disseminate or update market quotes in a timely and accurate manner;

(ii) the level of trading activities or the existence of unusual market conditions is such that the Exchange is incapable of collecting, processing, and making available to quotation vendors the data for the option in a manner that accurately reflects the current state of the market on the Exchange, and as a result, the market in the option is declared to be "fast" pursuant to Rule 704;

(iii) during trading rotations; or

(iv) any of the circumstances provided in paragraph (c)(3) of Rule 602 of Reg NMS exist.

(2) Notwithstanding paragraph (1) above, if a market maker's bid (offer) can trade with the offer (bid) of another market maker, the Exchange shall have the authority to implement a delay so that no execution shall occur between such quotations for a period of no more than one second. During such period, the System will update quotations that may be received; provided however, that during such period all quotations shall otherwise remain firm and the System shall automatically execute all incoming orders against such quotations.

(e) *Intra-day Quotes.* A market maker must enter bids and offers for the options to which it is appointed, except in an assigned options series listed intra-day on the Exchange. On a daily basis, a market maker must make markets consistent with the applicable quoting requirements specified below. A Member will be required to meet each market making obligation separately. A Competitive Market Maker who is also the Primary Market Maker will be held to the Primary Market Maker obligations in the options series in which the Primary Market Maker is assigned and will be held to Competitive Market Maker obligations in all other options series where assigned. A Competitive Market Maker who receives a Preferred Order, as described in Supplementary Material .03 to Rule 713, ("Preferred CMM") shall be held to the standard of a Preferred CMM in the options series of any options class in which it receives the Preferred Order.

(1) On any given day, a Competitive Market Maker is not required to enter quotations in the options classes to which it is appointed. A Competitive Market Maker may initiate quoting in options classes to which it is appointed intra-day. If a Competitive Market Maker initiates quoting in an options class, the Competitive Market Maker, associated with the same Member, is collectively required to provide two-sided quotations in 60% of the cumulative number of seconds, or such higher percentage as the Exchange may announce in advance, for which that Member's assigned options class is open for trading. Notwithstanding the foregoing, a Competitive Market Maker shall not be required to make two-sided markets pursuant to this Rule 804(e)(1) in any Quarterly Options Series, any adjusted options series, and any option series with an expiration of nine months or greater for options on equities and exchangetraded funds ("ETFs") or with an expiration of twelve months or greater for index options. Competitive Market Makers may choose to quote such series in addition to regular series in the options class, but such quotations will not be considered when determining whether a Competitive Market Maker has met the obligation contained in this paragraph (e)(1).

(i) An adjusted options series is an options series wherein, as a result of a corporate action by the issuer of the underlying security, one option contract in the series represents the delivery of other

than 100 shares of underlying stock or Exchange-Traded Fund Shares ("Adjusted Options Series").

(ii) A Competitive Market Maker may be called upon by an Exchange official designated by the Board to submit a single quote or maintain intra-day quotes in one or more of the series of an options class to which the Competitive Market Maker is appointed whenever, in the judgment of such official, it is necessary to do so in the interest of fair and orderly markets.

(2) Primary Market Makers, associated with the same Member, are collectively required to provide two-sided quotations in 90% of the cumulative number of seconds, or such higher percentage as the Exchange may announce in advance, for which that Member's assigned options class is open for trading. Primary Market Makers shall be required to make two-sided markets pursuant to this rule in any Quarterly Options Series, any Adjusted Options Series, and any option series with an expiration of nine months or greater for options on equities and ETFs or with an expiration of twelve months or greater for index options.

(3) Preferred CMMs, associated with the same Member, are collectively required to provide two-sided quotations in 90% of the cumulative number of seconds, or such higher percentage as the Exchange may announce in advance, for which that Member's assigned options class is open for trading. A Member shall be considered preferenced in an assigned options class once the Member receives a Preferenced Order in any option class in which they are assigned and shall be considered preferenced for that day in all series for that option class in which it received the Preferenced Order. Notwithstanding the foregoing, a Preferred CMM shall not be required to make two-sided markets pursuant to this Rule 804(e)(3) in any Quarterly Options Series, any Adjusted Options Series, and any options series with an expiration of nine months or greater for options on equities and ETFs or with an expiration of twelve months or greater for index options. Preferred CMMs may choose to quote such series in addition to regular series in the options class, but such quotations will not be considered when determining whether a Preferred CMM has met the obligation contained in this paragraph (e)(3). A Preferred CMM may be preferenced in such series and receive enhanced allocations pursuant to Nasdaq GEMX Rule 713, Supplementary Material .03, only if it complies with the heightened 90% quoting requirement contained in this paragraph (e)(3).

(4) Specifically, the Exchange will calculate subparagraphs (1) - (3) above by (i) taking the total number of seconds the Member disseminates quotes in each assigned options series, excluding, for Competitive Market Makers and Preferred CMMs, Quarterly Options Series, any Adjusted Options Series, and any option series with an expiration of nine months or greater for options on equities and ETFs or with an expiration of twelve months or greater for index options; and (ii) dividing that time by the eligible total number of seconds each assigned option series in the options class is open for trading that day. Quoting is not required in every assigned options series. Compliance with this requirement is determined by reviewing the aggregate of quoting in assigned options series for the Member.

(5) GEMX Regulation may consider exceptions to the above-referenced requirement to quote based on demonstrated legal or regulatory requirements or other mitigating circumstances. For purposes of the Exchange's surveillance of Member compliance with this rule, the Exchange will

determine compliance on a monthly basis. The Exchange's monthly compliance evaluation of the quoting requirement does not relieve a Member of the obligation to provide two-sided SR-GEMX-2018-37 Page 57 of 58 quotes on a daily basis, nor will it prohibit the Exchange from taking disciplinary action against a Member for failing to meet the quoting obligation each trading day.

(6) If a technical failure or limitation of a System of the Exchange prevents a market maker from maintaining, or prevents a Member from communicating to the Exchange, timely and accurate quotes, the Member shall promptly notify the Exchange and the duration of such failure or limitation shall not be included in any of the calculations under this subparagraph (e) with respect to the affected quotes.

(f) *Temporary Withdrawal of Quotations by Primary Market Makers.* A Primary Market Maker may apply to the Exchange to withdraw temporarily from its Primary Market Maker status in an options class. The Primary Market Maker must base its request on demonstrated legal or regulatory requirements that necessitate its temporary withdrawal, or provide the Exchange an opinion of counsel certifying that such legal or regulatory basis exists. The Exchange will act promptly on such a request, and, if the request is granted, the Exchange will temporarily reassign the options class to another Primary Market Maker.

(1) The Exchange Review Council shall have jurisdiction over proceedings brought by Primary Market Makers seeking review of the denial of an excused withdrawal pursuant to this Rule or the conditions imposed on their reentry.

(g) Reserved.

(h) In order to control the number of quotations the Exchange disseminates, the Exchange shall disseminate an updated bid and offer price, together with the size associated with such bid and offer, when:

(1) the Exchange's disseminated bid or offer price increases or decreases;

(2) the size associated with the Exchange's disseminated bid or offer decreases; or

(3) the size associated with the Exchange's bid (offer) increases by an amount greater than or equal to a percentage (never to exceed 20%) of the size associated with previously disseminated bid (offer). Such percentage, which shall never exceed 20%, shall be determined on an issue-by-issue basis by the Exchange and announced to membership via Exchange circular.

Rule 805. Market Maker Orders

(a) *Options Classes to Which Appointed.* Market makers may enter all order types defined in Rule 715 in the options classes to which they are appointed under Rule 802, except Stopped Orders, Reserve Orders and Customer Cross Orders. Competitive Market Makers shall comply with the provisions of Rule 804(e)(1) upon the entry of such orders if they were not previously quoting in the series.

(b) *Options Classes Other Than Those to Which Appointed.*

(1) A market maker may enter all order types permitted to be entered by non-customer participants under the Rules to buy or sell options in classes of options listed on the Exchange to which the market maker is not appointed under Rule 802, except for Reserve Orders, provided that:

(i) the spread between a limit order to buy and a limit order to sell the same options contract complies with the parameters contained in Rule 803(b)(4); and

(ii) the market maker does not enter orders in options classes to which it is otherwise appointed, either as a Competitive or Primary Market Maker.

(2) *Competitive Market Makers.* The total number of contracts executed during a quarter by a Competitive Market Maker in options classes to which it is not appointed may not exceed twenty-five percent (25%) of the total number of contracts traded by such Competitive Market Maker in classes to which it is appointed and with respect to which it was quoting pursuant to 804(e)(1).

(3) *Primary Market Makers.* The total number of contracts executed during a quarter by a Primary Market Maker in options classes to which it is not appointed may not exceed twenty-five percent (25%) of the total number of contracts traded per each Primary Market Maker Membership.

Rule 806. Trade Reporting and Comparison

The details of each trade executed on the Exchange are automatically reported at the time of execution. Members need not separately report their transactions for trade comparison purposes.

Rule 807. Securities Accounts and Orders of Market Makers

(a) *Identification of Accounts.* A Primary Market Maker in Exchange-Traded Fund Shares, as defined in Rule 502(h), is obligated to conduct all trading in Exchange-Traded Fund Shares in account(s) that have been reported to the Exchange. In addition, in a manner prescribed by the Exchange, each market maker shall file with the Exchange and keep current a list identifying all accounts for stock, options, non-U.S. currency, non-U.S. currency options, futures or options on futures on such currency, or any other derivatives based on such currency, physical commodities, physical commodity options, commodity futures contracts, options on commodity futures contracts, any other derivatives based on such commodity and related securities trading in which the market maker may, directly or indirectly, engage in trading activities or over which it exercises investment direction. No market maker shall engage in stock, options, non-U.S. currency, non-U.S. currency options, futures or options on futures on such currency, physical commodities, physical commodity options, commodity futures contracts, options on commodity futures contracts, any other derivatives based on such commodity or any other derivatives based on such currency or related securities trading in an account which has not been reported pursuant to this Rule.

(b) *Reports of Orders.* Each market maker shall, upon the request of the Exchange and in the prescribed form, report to the Exchange every order entered by the market maker for the purchase or sale of (i) a security underlying options traded on the Exchange, or (ii) a security convertible into or exchangeable for such underlying security, as well as opening and closing positions in all such securities held in each account reported pursuant to paragraph (a) of this Rule. The report pertaining to orders must include the terms of each order, identification of the brokerage firms through which the orders were entered, the times of entry or cancellation, the times report of execution were received and, if all or part of the order was executed, the quantity and execution price.

(c) *Joint Accounts.* No market maker shall, directly or indirectly, hold any interest or participate in any joint account for buying or selling any options contract unless each participant in such joint account is a Member and unless such account is reported to and not disapproved by the Exchange. Such reports in a form prescribed by the Exchange shall be filed with the Exchange before any transaction is effected on the Exchange for such joint account. A participant in a joint account must:

- (1) Be either a market maker or a Clearing Member that carries the joint account.
- (2) File and keep current a completed application on such form as is prescribed by the Exchange.
- (3) Be jointly and severally responsible for assuring that the account complies with all the Rules of the Exchange.
- (4) Not be a market maker appointed to the same options classes to which the joint account holder is also appointed as a market maker.

Rule 808. Letters of Guarantee

(a) *Required of Each Market Maker.* No market maker shall make any transactions on the Exchange unless a Letter of Guarantee has been issued for such Member by a Clearing Member and filed with the Exchange, and unless such Letter of Guarantee has not been revoked pursuant to paragraph (c) of this Rule.

(b) *Terms of Letter of Guarantee.* A Letter of Guarantee shall provide that the issuing Clearing Member accepts financial responsibilities for all Exchange transactions made by the guaranteed Member.

(c) *Revocation of Letter of Guarantee.* A Letter of Guarantee filed with the Exchange shall remain in effect until a written notice of revocation has been filed with the Exchange. A revocation shall in no way relieve a Clearing Member of responsibility for transactions guaranteed prior to the effective date of such revocation.

Rule 809. Financial Requirements for Market Makers

(a) *Primary Market Makers.* Every Primary Market Maker shall maintain net liquidating equity of not less than \$3,250,000 plus \$25,000 excess equity for each underlying security upon which appointed options are open for trading in excess of the initial ten (10) underlying securities.

(b) *Competitive Market Makers.* Every Competitive Market Maker shall maintain net liquidating equity of not less than \$1,000,000.

(c) Each market maker that makes an arrangement to finance his transactions as a market maker must identify to the Exchange the source of the financing and its terms. The Exchange must be informed immediately of the intention of any party to terminate or change any such arrangement.

Supplementary Material to Rule 809

.01 For purposes of Rule 809, the term "net liquidating equity" means the sum of positive cash balances and long securities positions less negative cash balances and short securities positions.

Rule 810. Reserved

Reserved

Rule 811. Reserved

9. Reserved

Reserved

Reserved

10. Closing Transactions

The rules contained in Nasdaq ISE Chapter 10, as such rules may be in effect from time to time (the "Chapter 10 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 10, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 10 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 10 Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 10 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 10 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Clearing Member" in the Chapter 10 Rules shall be read to refer to the Nasdaq GEMX Clearing Member; and the defined term "Member" in the Chapter 10 Rules shall be read to refer to the Nasdaq GEMX Member.

11. Exercises and Deliveries

The rules contained in Nasdaq ISE Chapter 11, as such rules may be in effect from time to time (the "Chapter 11 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 11, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 11 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 11 Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 11 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 11 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Clearing Member" in the Chapter 11 Rules shall be read to refer to the Nasdaq GEMX

Clearing Member; and the defined term "Member" in the Chapter 11 Rules shall be read to refer to the Nasdaq GEMX Member.

12. Margins

The rules contained in Nasdaq ISE Chapter 12, as such rules may be in effect from time to time (the "Chapter 12 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 12, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 12 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 12 Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 12 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 12 Rules shall be read to refer to the Nasdaq GEMX Rule; and the defined term "Member" in the Chapter 12 Rules shall be read to refer to the Nasdaq GEMX Member.

13. Net Capital Requirements

The rules contained in Nasdaq ISE Chapter 13, as such rules may be in effect from time to time (the "Chapter 13 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 13, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 13 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 13 Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 13 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 13 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "President" in the Chapter 13 Rules shall be read to refer to the Nasdaq GEMX President; and the defined term "Member" in the Chapter 13 Rules shall be read to refer to the Nasdaq GEMX Member.

14. Records, Reports and Audits

The rules contained in Nasdaq ISE Chapter 14, as such rules may be in effect from time to time (the "Chapter 14 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 14, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 14 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 14 Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 14 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 14 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Market Maker" in the Chapter 14 Rules shall be read to refer to the Nasdaq GEMX Market Maker; and the defined term "Member" in the Chapter 14 Rules shall be read to refer to the Nasdaq GEMX Member.

15. Reserved

Reserved

16. Disciplinary Jurisdiction and Minor Rule Violation Fines

The rules contained in Nasdaq ISE Chapter 16, as such rules may be in effect from time to time (the "Chapter 16 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 16, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 16 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 16 Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 16 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 16 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Affiliate" in the Chapter 16 Rules shall be read to refer to the Nasdaq GEMX Affiliate; and the defined term "Member" in the Chapter 16 Rules shall be read to refer to the Nasdaq GEMX Member.

17. Reserved

Reserved

18. Reserved

Reserved

19. Intermarket Linkage

The rules contained in Nasdaq ISE Chapter 19, as such rules may be in effect from time to time (the "Chapter 19 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 19, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 19 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 19 Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 19 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 19 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Bid" in the Chapter 19 Rules shall be read to refer to the Nasdaq GEMX Bid; and the defined term "Member" in the Chapter 19 Rules shall be read to refer to the Nasdaq GEMX Member.

20. Index Rules

The rules contained in Nasdaq ISE Chapter 20, as such rules may be in effect from time to time (the "Chapter 20 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Chapter 20, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Chapter 20 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Chapter 20 Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter 20 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Chapter 20 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Exchange Official" in the Chapter 20 Rules shall be read to refer to the Nasdaq GEMX

Exchange Official; and the defined term "Member" in the Chapter 20 Rules shall be read to refer to the Nasdaq GEMX Member.

21. [Reserved]

22. Reserved.

Reserved.

Chapters 23.-79. Reserved

Chapters 23.-79. Reserved

Reserved

80. Investigations and Sanctions

Investigations and Sanctions

Series 8000 of the Nasdaq BX, Inc. Rules, as such rules may be in effect from time to time (the "BX Rule 8000 Series"), are hereby incorporated by reference into this Nasdaq GEMX Rules Chapter 80, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members, Associated Persons, and other persons subject to the Exchange's jurisdiction. Nasdaq GEMX Members, Associated Persons, and other persons subject to the Exchange's jurisdiction shall comply with the BX Rule 8000 Series as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the BX Rule 8000 Series shall be read to refer to the Nasdaq GEMX-related meaning of such term. The defined terms "Exchange" or "Nasdaq BX" in the BX Rule 8000 Series shall be read to refer to the Nasdaq GEMX Exchange; the defined terms "Rule" or "BX Rule" in the BX Rule 8000 Series shall be read to refer to the Nasdaq GEMX Rules; the defined terms "Board" or "Exchange Board" in the BX Rule 8000 Series shall be read to refer to the Nasdaq GEMX Board of Directors; the defined term "Member" in the BX Rule 8000 Series shall be read to refer to a Nasdaq GEMX Member; the defined term "Associated Person" shall be read to refer to a Nasdaq GEMX Associated Person; the defined terms "BX Regulatory Department" or "Regulation Department" shall be read to refer to the Nasdaq GEMX Regulatory Department; the defined terms "BX Regulation" shall be read to refer to "Nasdaq GEMX Regulation"; the defined term "Chief Regulatory Officer" shall be read to refer to the Chief Regulatory Officer of Nasdaq GEMX; and "Equity Rule" shall be read to refer to a Nasdaq GEMX Rule.

Additionally, references in the BX Rule 8000 Series to "Rule 0120" shall be read to refer to Nasdaq GEMX Rule 100. References in the BX Rule 8000 Series to "Rule 1015" shall be read to refer to Nasdaq GEMX Rule 303.

Chapters 81.-89. Reserved

Chapters 81.-89. Reserved

Reserved

90. Code of Procedure

Chapter 90 Code of Procedure

Series 9000 of the Nasdaq BX, Inc. Rules, as such rules may be in effect from time to time (the "BX Rule 9000 Series"), are hereby incorporated by reference into this Nasdaq GEMX Rules Chapter 90, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members, Associated Persons, and other persons subject to the Exchange's jurisdiction. Nasdaq GEMX Members, Associated Persons, and other persons subject to the Exchange's jurisdiction shall comply with the BX Rule 9000 Series as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the BX Rule 9000 Series shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined terms "Exchange" or "Nasdaq BX" in the BX Rule 9000 Series shall be read to refer to the Nasdaq GEMX Exchange; the defined terms "Rule" or "BX Rule" in the BX Rule 9000 Series shall be read to refer to the Nasdaq GEMX Rules; the defined terms "Board" or "Exchange Board" in the BX Rule 9000 Series shall be read to refer to the Nasdaq GEMX Board of Directors; the defined term "Member" in the BX Rule 9000 Series shall be read to refer to a Nasdaq GEMX Member; the defined term "Associated Person" shall be read to refer to a Nasdaq GEMX Associated Person; the defined terms "BX Regulatory Department" or "Regulation Department" shall be read to refer to the Nasdaq GEMX Regulatory Department; the defined terms "BX Regulation" shall be read to refer to "Nasdaq GEMX Regulation"; the defined term "Chief Regulatory Officer" shall be read to refer to the Chief Regulatory Officer of Nasdaq GEMX; and "Equity Rule" shall be read to refer to a Nasdaq GEMX Rule.

Additionally, references in the BX Rule 9000 Series to the following rules shall be read to refer to the following Nasdaq GEMX Rules: "Rule 0120" shall be read to refer to Nasdaq GEMX Rule 100; "Rule 1013" shall be read to refer to Nasdaq GEMX Rules 302 and 307; "Rule 1070" shall be read to refer to the Supplementary Material to Nasdaq GEMX Rule 306; "Rule 1160" shall be read to refer to Nasdaq GEMX Rule 307(b); "Equity Rule 2110" shall be read to refer to Nasdaq GEMX Rule 400; "Equity Rule 2120" shall be read to refer to Nasdaq GEMX Rule 405; "Rule 2140" shall be read to refer to Nasdaq GEMX Rule 309; "Equity Rule 2150" shall be read to refer to Nasdaq GEMX Chapter 6; "Rule 2170" shall be read to refer to Nasdaq GEMX Rule 403; "Rule 4110A" shall be read to refer to Nasdaq GEMX Chapter 13; "Rule 4120A" shall be read to refer to Nasdaq GEMX Chapter 13; "Rule 10000 Series" shall be read to refer to Nasdaq GEMX Rules Chapter 18; and "Chapter III, Section 16" shall be read to refer to Nasdaq GEMX Rule 403.

Notwithstanding the above, IM-9216 ("Violations Appropriate for Disposition Under Plan Pursuant to SEC Rule 19d-1(c)(2)") in the BX Rule 9000 Series shall not apply to the Nasdaq GEMX Exchange or to its Members, Associated Persons, or other persons subject to the jurisdiction of the Exchange. Instead, the Nasdaq GEMX Rule that governs such violations shall be Nasdaq GEMX Rule 1614(b) and references in the BX Rule 9000 Series to IM-9216 shall be read to refer to Nasdaq GEMX Rule 1614(b). Moreover, the procedures set forth in BX Rule 9216(b) and 9143(e)(3), which shall govern the handling of violations of Rules listed in Nasdaq GEMX Rule 1614(b) that are subject to a plan approved by the Commission pursuant to SEC Rule 19d-1(c)(2) (the "Minor Rule Violation Plan" or "MRVP") and the issuance of MRVP letters, shall also apply to the Exchange's handling of violations of Rules listed in Nasdaq GEMX Rule 1614(b) that are not subject to the MRVP ("minor rule violations") and the issuance of

minor rule violation letters, except that the Exchange shall promptly report any final disciplinary action to the Commission, in accordance with SEC Rule 19d-1(c)(1).]

Nasdaq GEMX, LLC Rules

General Rules

General 1 Provisions

Section 1. Definitions

(a) The following terms, when used in these Rules, shall have the meanings specified in this General 1, unless the context indicates otherwise. Any term defined in the Limited Liability Company Agreement (the "LLC Agreement") or the By-Laws of Nasdaq GEMX, LLC (the "By-Laws") and not otherwise defined in this General 1 shall have the meaning assigned in the LLC Agreement or the By-Laws.

(1) The term "**associated person**" or "**person associated with a Member**" means any partner, officer, director, or branch manager of a Member (or any person occupying a similar status or performing similar functions), any person directly or indirectly controlling, controlled by, or under common control with a Member or any employee of a Member.

(2) The term "**board of directors**" or "**Board**" has the meaning set forth in Article I of the By-Laws.

(3) The term "**Clearing Corporation**" means The Options Clearing Corporation.

(4) The term "**Clearing Member**" means a Member that is self-clearing or an Electronic Access Member that clears Exchange Transactions for other Members of the Exchange.

(5) The term "**Code of Procedure**" means the procedural rules contained in General 5, Section 3.

(6) The term "**Electronic Access Member**" means a Member that is approved to exercise trading privileges associated with EAM Rights.

(7) The term "**Exchange Act**" or the "**Act**" means the Securities Exchange Act of 1934 and the rules and regulations thereunder, as amended from time to time.

(8) The term "**Exchange Review Council**" means the committee authorized and directed to act for the Board of Directors of the Exchange in a manner consistent with the Exchange Rules with respect to (1) an appeal or review of a disciplinary proceeding; (2) a statutory disqualification decision; (3) a review of a membership proceeding; (4) a review of an offer of settlement, a letter of acceptance, waiver, and consent, and a minor rule violation plan letter; (5) the exercise of exemptive authority; (6) an appeal of proceedings involving Exchange General 3, Section 2, Options 3, Section 20 and Options 2, Section 5; and (7) such other proceedings or actions authorized by the Exchange Rules.

(9) The term "**Exchange Transaction**" means a transaction executed on or through the facilities of the Exchange.

(10) The term "**Federal Reserve Board**" means the Board of Governors of the Federal Reserve System.

(11) The term "**good standing**" means that a Member is not delinquent with respect to Exchange dues, fees or other charges and is not suspended or barred from effecting Exchange Transactions or from association with a Member either by the Exchange or by means of a statutory disqualification.

(12) The terms "**he,**" "**him**" or "**his**" shall be deemed to refer to persons of female as well as male gender, and to include organizations, as well as individuals, when the context so requires.

(13) The term "**ISE**" means Nasdaq ISE, LLC, a national securities exchange.

(14) The term "**Member**" means an organization that has been approved to exercise trading rights associated with Exchange Rights.

(15) The term "**Membership**" refers to the trading privileges associated with Exchange Rights.

(16) The term "**primary market**" means the principal market in which an underlying security is traded.

(17) The term "**Rules of the Clearing Corporation**" means the Certificate of Incorporation, the By-laws and the Rules of the Clearing Corporation, and all written interpretations thereof, as the same may be in effect from time to time.

(18) The term "**SEC**" and the "**Commission**" mean the United States Securities and Exchange Commission.

(19) The term "**SRO**" means a self-regulatory organization as defined in Section 3(a)(26) of the Exchange Act.

(20) The term "**underlying security**" means the security that the Clearing Corporation shall be obligated to sell (in the case of a call option) or purchase (in the case of a put option) upon the valid exercise of an options contract.

General 2 Organization and Administration

Section 1. Divisions of the Exchange

The divisions of the Exchange shall include the Regulatory Division and such other Divisions as the Chief Executive Officer and President, with the approval of the Board, may establish. The

Chief Executive Officer and President shall appoint a head of every Division and may designate departments within each Division.

Section 2. Fees, Dues and Other Charges

Participant Fees. The fees payable by Members shall be fixed from time to time by the Exchange. Fees shall be payable in full on the first day of each month on a nonrefundable basis and shall be applied to the month beginning on that day.

Section 3. Exchange's Costs of Defending Legal Proceedings

(a) Any Member or person associated with a Member who fails to prevail in a lawsuit or other legal proceeding instituted by such person against the Exchange or any of its Directors, officers, committee members, employees or agents, and related to the business of the Exchange, shall pay to the Exchange all reasonable expenses, including attorneys' fees, incurred by the Exchange in the defense of such proceeding, but only in the event that such expenses exceed fifty thousand dollars (\$50,000).

(b) Paragraph (a) of this Rule shall not apply to disciplinary actions by the Exchange, to administrative appeals of Exchange actions or in any specific instance where the Board has granted a waiver of this provision.

Section 4. Limitation on Affiliation between the Exchange and Members

(a) Without prior SEC approval, the Exchange, or any facility of the Exchange, or any entity with which the Exchange or any facility of the Exchange is affiliated shall not, directly or indirectly through one or more intermediaries, acquire or maintain an ownership interest in a Member. In addition, a Member shall not be or become an affiliate of the Exchange, or any facility of the Exchange, or any entity with which the Exchange or any facility of the Exchange is affiliated. In addition, no Member or person associated with a Member shall be the beneficial owner, directly or indirectly, of greater than twenty percent (20%) of the (i) then-outstanding voting Limited Liability Company Interest of the Exchange, or (ii) then-outstanding voting securities of Nasdaq, Inc. Nothing in this Rule shall prohibit any Member from being or becoming an affiliate of the Exchange, or any facility of the Exchange, or an affiliate of any affiliate of the Exchange or any facility of the Exchange solely by reason of any officer, director or partner of such Member being or becoming a Member Representative Director (as defined in the By-Laws) pursuant to the By-Laws. For purposes of this Rule, any calculation of the voting Limited Liability Company Interest of the Exchange or the voting securities of Nasdaq, Inc. outstanding at any particular time shall be made in accordance with the last sentence of SEC Rule 13d-3(d)(1)(i)(D). The term "beneficially owned", including all derivative or similar words, shall have the meaning set forth in the Amended and Restated Certificate of Incorporation of Nasdaq, Inc.

(b) Nasdaq, Inc., which owns NASDAQ Execution Services, LLC and the Exchange, shall establish and maintain procedures and internal controls reasonably designed to ensure that NASDAQ Execution Services, LLC does not develop or implement changes to its system on the basis of non-public information regarding planned changes to the Exchange's systems, obtained as a result of its affiliation with the Exchange, until such information is available generally to similarly situated Exchange Members in connection with the provision of inbound routing to the Exchange.

Section 5. Reserved**Section 6. Reserved****General 3 Membership and Access****Section 1. Qualification of Members**

(a) The Exchange shall issue Memberships that confer the ability to transact on the Exchange. There is no limit on the number of Memberships that may be issued by the Exchange. In addition, in no event shall the Exchange act in a manner under this paragraph that does not comply with the provisions of Section 6(c)(4) of the Exchange Act. A Member of the Exchange may be a corporation, partnership, or LLC. Each Member must:

(1) be a broker-dealer registered pursuant to Section 15 of the Exchange Act; and

(2) meet the qualifications for a Member in accordance with Exchange Rules applicable thereto.

(b) A Member that does not maintain an office in the United States responsible for preparing and maintaining financial and other reports required to be filed with the Commission and the Exchange must:

(1) prepare all such reports, and maintain a general ledger chart of account and any description thereof, in English and U.S. dollars;

(2) reimburse the Exchange for any expense incurred in connection with examinations of the Member to the extent that such expenses exceed the cost of examining a Member located within the continental United States; and

(3) ensure the availability of an individual fluent in English and knowledgeable in securities and financial matters to assist representatives of the Exchange during examinations.

(c) Every Member shall have as the principal purpose of being a Member the conduct of a securities business. Such a purpose shall be deemed to exist if and so long as:

(1) the Member has qualified and acts in respect of its business on the Exchange in one or more of the following capacities: (i) an Electronic Access Member; (ii) a Primary Market Maker; or (iii) a Competitive Market Maker; and

(2) all transactions effected by the Member are in compliance with Section 11(a) of the Exchange Act and the rules and regulations adopted thereunder.

Section 2. Denial of and Conditions to Becoming a Member

(a) An applicant to become a Member of the Exchange must seek approval in the form and manner prescribed by the Exchange.

(b) The Exchange may deny (or condition) approval of a Member, or may prevent a person from becoming associated (or condition an association) with a Member, for the same reasons that the SEC may deny or revoke a broker-dealer registration and for those reasons required or allowed under the Exchange Act.

(c) The Exchange also may deny (or condition) approval of a Member, or may prevent a person from becoming associated with (or condition an association) with a Member, when the applicant, directly or indirectly:

(1) has a negative net worth, has financial difficulties involving an amount that is more than five percent (5%) of the applicant's net worth, or has a pattern of failure to pay just debts (whether or not such debts have been the subject of a bankruptcy action);

(2) is unable satisfactorily to demonstrate a capacity to adhere to all applicable Exchange, SEC, the Clearing Corporation and Federal Reserve Board policies, rules and regulations, including those concerning record-keeping, reporting, finance and trading procedures; or

(3) is unable satisfactorily to demonstrate reasonably adequate systems capability and capacity.

(d) When an applicant is a subject of an investigation conducted by any SRO or government agency involving its fitness for becoming a Member, the Exchange need not act on the application until the matter has been resolved.

(e) The Exchange may determine not to permit a Member or person associated with a Member to continue as a Member or associated therewith, if the Member or associated person:

(1) fails to meet any of the qualification requirements for becoming a Member or associated with a Member after approval thereof;

(2) fails to meet any condition placed by the Exchange on such Member or association with a Member;

(3) violates any agreement with the Exchange; or

(4) becomes subject to a statutory disqualification under the Exchange Act.

(f) If a Member or person associated with a Member that becomes subject to a statutory disqualification under the Exchange Act wants to continue as a Member of the Exchange or in association with a Member, the Member or associated person must submit an application to the Exchange seeking to continue as a Member or in association with a Member notwithstanding the statutory disqualification, as set forth in General 5, Section 3. Failure to timely file such an application is a factor that may be taken into consideration by the Exchange in making determinations pursuant to paragraph (e) of this Rule.

(g) Review by the Exchange Review Council. Subject to General 5, Section 3 of the Rules, any applicant whose application to become a Member is denied or conditioned by the Exchange's Membership Department ("the Department"), or any person whose association with a Member is denied or conditioned by the Department pursuant to paragraph (b) or (c) of this Rule, and any Member or person associated with a Member who is not permitted by the Department pursuant to paragraph (e) of this Rule to continue as a Member or to be associated with a Member or which continuance as a Member or association is conditioned by the Department, may appeal the Department's decision to the Exchange Review Council, as set forth below.

(1) Initiation of Review by Applicant. Within 25 days after service of a decision under this Rule, an applicant ("Applicant") may file a written request for review with the Exchange Review Council. A request for review shall state with specificity why the Applicant believes that the Department's decision is inconsistent with the bases for denial set forth in this Rule, or otherwise should be set aside, and state whether a hearing is requested. The Applicant simultaneously shall file by first-class mail a copy of the request with the Department.

(2) Transmission of Documents. Within ten days after the filing of a request for review, the Department shall:

(A) transmit to the Exchange Review Council copies of all documents that were considered in connection with the Department's decision and an index to the documents; and

(B) serve on the Applicant a copy of such documents (other than those documents originally submitted by Applicant) and a copy of the index.

(3) Membership Application Docket. The Department shall promptly record in the Exchange's membership application docket each request for review filed with the Exchange Review Council under this Rule and each material subsequent event, filing, and change in the status of a membership proceeding.

(4) Appointment of Subcommittee. The Exchange Review Council or the Review Subcommittee defined in General 5, Section 3 shall appoint a Subcommittee to participate in the review. The Subcommittee shall be composed of two or more persons who shall be current or past members of the Exchange Review Council or former Directors.

(5) Powers of Subcommittee. If a hearing is requested, the Subcommittee shall conduct the hearing. If a hearing is not requested, the Subcommittee may serve a notice directing that a hearing be held. If a hearing is not requested or directed, the Subcommittee shall conduct its review on the basis of the record developed before the Department and any written submissions made by the Applicant or the Department in connection with the request for review.

(6) Hearing.

(A) Notice. If a hearing is requested or directed, the hearing shall be held within 45 days after the filing of the request with the Exchange Review Council or service of the notice by the Subcommittee. The Exchange Review Council shall serve written notice of the date and time of the hearing to the Applicant by facsimile or overnight courier not later than 14 days before the hearing.

(B) Counsel. The Applicant and the Department may be represented by counsel at a hearing conducted pursuant to this Rule.

(C) Evidence. Formal rules of evidence shall not apply to a hearing under this Rule. Not later than five days before the hearing, the Applicant and the Department shall exchange copies of their proposed hearing exhibits and witness lists and provide copies of the same to the Exchange Review Council. If the Applicant or the Department fails to provide copies of its proposed hearing exhibits or witness list within such time, the Subcommittee shall exclude the evidence or witnesses from the proceeding, unless the Subcommittee determines that good cause is shown for failure to comply with the production date set forth in this subparagraph.

(D) Transcript. The hearing shall be recorded and a transcript prepared by a court reporter. A transcript of the hearing shall be available for purchase from the court reporter at prescribed rates. The Applicant, the Department, or a witness may seek to correct the transcript. A proposed correction of the transcript shall be submitted to the Subcommittee within a reasonable period of time prescribed by the Subcommittee. Upon notice to the Applicant and the Department, the Subcommittee may direct the correction to the transcript as requested or sua sponte.

(7) Additional Information, Briefs. At any time during its consideration, the Subcommittee or the Exchange Review Council may direct the Applicant or the Department to file additional information or briefs. Any additional information or brief filed shall be provided to all parties before the Exchange Review Council renders its decision.

(8) Abandonment of Request for Review. If an Applicant fails to specify the grounds for its request for review under General 3, Section 2(g)(1), appear at a hearing for which it has notice, or file information or briefs as directed, the Exchange Review Council or the Review Subcommittee may dismiss the request for review as abandoned, and the decision of the Department shall become the final action of the Exchange. Upon a showing of good cause, the Exchange Review Council or the Review Subcommittee may withdraw a dismissal entered pursuant to this paragraph.

(9) Subcommittee Recommendation. The Subcommittee shall present a recommended decision in writing to the Exchange Review Council within 60 days after the date of the hearing held pursuant to subparagraph (g)(6), and not later than seven days before the

meeting of the Exchange Review Council at which the membership proceeding shall be considered.

(10) Decision.

(A) Proposed Written Decision. After considering all matters presented in the review and the Subcommittee's recommended written decision, the Exchange Review Council may affirm, modify, or reverse the Department's decision or remand the membership proceeding with instructions. The Exchange Review Council shall prepare a proposed written decision pursuant to subparagraph (g)(10)(B).

(B) Contents. The decision shall include:

(i) a description of the Department's decision, including its rationale;

(ii) a description of the principal issues raised in the review;

(iii) a summary of the evidence on each issue; and

(iv) a statement whether the Department's decision is affirmed, modified, or reversed, and a rationale therefor that references the bases for denial in General 3, Section 2.

(C) Issuance of Decision After Expiration of Call for Review Periods. The Exchange Review Council shall provide its proposed written decision to the Exchange Board. The Exchange Board may call the membership proceeding for review pursuant to General 3, Section 2(h). If the Exchange Board does not call the membership proceeding for review, the proposed written decision of the Exchange Review Council shall become final. The Exchange Review Council shall serve the Applicant with a written notice specifying the date on which the call for review period expired and stating that the final written decision will be served within 15 days after such date. The Exchange Review Council shall serve its final written decision within 15 days after the date on which the call for review period expired. The decision shall constitute the final action of the Exchange for purposes of SEC Rule 19d-3, unless the Exchange Review Council remands the membership proceeding.

(D) Failure to Issue Decision. If the Exchange Review Council fails to serve its final written decision within the time prescribed in subparagraph (g)(10)(C), the Applicant may file a written request with the Exchange Board requesting that the Exchange Board direct the Exchange Review Council to serve its decision immediately or to show good cause for an extension of time. Within seven days after the filing of such a request, the Board shall direct the Exchange Review Council to serve its written decision immediately or to show good cause for an extension of time. If the Exchange Review Council shows good cause for an

extension of time, the Exchange Board may extend the 15-day time limit by not more than 15 days.

(h) Discretionary Review by the Exchange Board

(1) Call for Review by Director. A Director may call a membership proceeding for review by the Exchange Board if the call for review is made within the period prescribed in subparagraph (h)(2).

(2) 15 Day Period; Waiver. A Director shall make his or her call for review at the next meeting of the Exchange Board that is at least 15 days after the date on which the Exchange Board receives the proposed written decision of the Exchange Review Council. By unanimous vote of the Exchange Board, the Exchange Board may shorten the period to less than 15 days. By an affirmative vote of the majority of the Exchange Board then in office, the Exchange Board may, during the 15 day period, vote to extend the period to more than 15 days.

(3) Review At Next Meeting. If a Director calls a membership proceeding for review within the time prescribed in subparagraph (h)(2), the Exchange Board shall review the membership proceeding not later than the next meeting of the Exchange Board. The Exchange Board may order the Applicant and the Department to file briefs in connection with review proceedings pursuant to this paragraph.

(4) Decision of the Exchange Board, Including Remand. After review, the Exchange Board may affirm, modify, or reverse the proposed written decision of the Exchange Review Council. Alternatively, the Exchange Board may remand the membership proceeding with instructions. The Exchange Board shall prepare a written decision that includes all of the elements described in General 3, Section 2(g)(10)(B).

(5) Issuance of Decision. The Exchange Board shall serve its written decision on the Applicant within 15 days after the meeting at which it conducted its review. The decision shall constitute the final action of the Exchange for purposes of SEC Rule 19d-3, unless the Exchange Board remands the membership proceeding.

Section 3. Persons Associated with Members

(a) Persons associated with Members shall be bound by the By-Laws and Rules of the Exchange and the Rules of the Clearing Corporation. The Exchange may bar a person from becoming or continuing to be associated with a Member if such person does not agree in writing, on a form prescribed by the Exchange, to furnish the Exchange with information with respect to such person's relationship and dealings with the Member, and information reasonably related to such person's other securities business, as may be required by the Exchange, and to permit the examination of its books and records by the Exchange to verify the accuracy of any information so supplied.

(b) Each Member shall file with the Exchange and keep current a list and descriptive identification of those persons associated with the Member(s) who are its executive officers,

directors, principal shareholders, and general partners. Such persons shall file with the Exchange a Uniform application for Securities Industry Registration or Transfer (Form U-4).

(c) A claim of any person associated with a Member described in the first sentence of paragraph (b) of this Rule against such organization shall be subordinate in right of payment of customers and other Members.

Section 4. Documents Required of Applicants and Members

(a) Although the Exchange may request additional information, at a minimum, the partnership agreement and all amendments thereto, in the case of a partnership, the articles of incorporation, by-laws and all amendments thereto, in the case of a corporation, and in the case of a limited liability company, the articles of organization and operating agreement and all amendments thereto shall be filed with, and shall be subject to review by, the Exchange; however, no action or failure to act by the Exchange shall be construed to mean that the Exchange has in any way passed on the investment merits of or given approval to any such document.

(b) Every Member shall report to the Exchange all contact information required by the Exchange via the FINRA Contact system. Each Member shall update its required contact information promptly, but in any event not later than 30 days following any change in such information. In addition, each Member shall review and, if necessary, update its required contact information, via such means as the Exchange may specify, within 17 business days after the end of each calendar year. Each Member shall comply with any Exchange request for such information promptly, but in any event not later than 15 days following the request, or such longer period that may be agreed to by Exchange staff.

(c) In a manner and form prescribed by the Exchange, every Member shall pledge to abide by the By-Laws and Rules of the Exchange, as amended from time to time, and by all Options Regulatory Alerts, notices, directives or decisions adopted pursuant to or made in accordance with the By-Laws and Rules.

Section 5. Member Application Procedures

(a) *Nasdaq ISE Members.* A Nasdaq ISE Member in good standing is eligible to become a Nasdaq GEMX Member of the same category (i.e., a Nasdaq ISE PMM Member is eligible to become a Nasdaq GEMX PMM Member, a Nasdaq ISE CMM Member is eligible to become a Nasdaq GEMX CMM Member and a Nasdaq ISE EAM Member is eligible to become a Nasdaq GEMX EAM Member). Nasdaq ISE Member applicants are not required to complete and submit an Exchange application. Instead, only Exchange forms concerning electing to trade on the Exchange, submitting to the Exchange jurisdiction, and operational matters need to be completed and tendered.

(b) *Non-Nasdaq ISE Members.* All non-Nasdaq ISE Members seeking to become a Member of the Exchange must submit an application to the Exchange in accordance with such procedures as shall be established by the Exchange via Options Regulatory Alert including submission deadlines and payment of any applicable application fees. The Exchange shall provide non-Nasdaq ISE Members with at least sixty (60) days advance written notice of the date upon which the Exchange shall allocate options classes and appoint Market Makers pursuant to Exchange

Options 2, Section 3 in order to ensure non-Nasdaq ISE Members have a reasonable opportunity to participate in those processes. A market participant must have completed a membership application to be eligible to participate in the processes set forth in Options 2, Section 3. In addition, the following shall apply:

(i) Applications must be accompanied by a non-refundable application fee.

(ii) Within a reasonable time following receipt of an application, the name of the applicant shall be posted by the Exchange.

(iii) An applicant must be approved by the Exchange to perform in at least one of the recognized capacities of a Member as stated in General 3, Section 1(c).

(iv) Upon completion of the application process, the Exchange shall consider whether to approve the application, unless there is just cause for delay. Persons associated with the applicant are subject to investigation by the Exchange and may be required to appear in person before the Exchange. The Exchange may also require any person associated with a Member who may possess information relevant to the applicant's suitability to be a Member to provide information or testimony.

(v) The Exchange will determine whether to approve an application. Written notice of the action of the Exchange, specifying in the case of disapproval of an application the grounds therefor, shall be provided to the applicant.

(vi) If the application process is not completed within six (6) months of the filing of the application form and payment of the appropriate fee, the application shall be deemed to be automatically withdrawn.

(vii) With respect to each Membership that becomes effective in accordance with this Rule, the Exchange shall promptly notify all Members thereof.

(c) *Rights of Members.* No rights shall be conferred upon a Member except those set forth in the Rules as amended from time to time. A Membership shall not convey any ownership interest in the Exchange. Memberships may not be leased and are not transferable except in the event of a change in control or corporate reorganization involving a Member. In such case, Member status may be transferred to a qualified affiliate or successor upon written notice to the Exchange.

(d) *Fees and Charges for Members.* Members shall be subject to such fees and charges as are established by the Exchange from time to time pursuant to General 2, Section 2 and the Exchange's Pricing Schedule. The entire fee for a Member shall be due and payable in full on or before the first day on which the Membership is effective on a nonrefundable basis. An organization holding a Membership in its name shall be responsible for paying all fees and charges for that Membership.

(e) Exchange Jurisdiction over Members. Every Member shall be subject to the regulatory jurisdiction of the Exchange under the Exchange Act and the Rules, including without limitation the Exchange's disciplinary jurisdiction under General 5, Section 1 of the Rules.

Section 6. Dissolution and Liquidation of Members

Every Member shall promptly notify the Exchange in writing upon the adoption of a plan of liquidation or dissolution. Upon receipt of such notice, the Member's trading privileges may be suspended in accordance with General 5, Section 3.

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General 5 Discipline

Section 1. Disciplinary Jurisdiction

The rules contained in Nasdaq ISE General 5, Section 1, as such rules may be in effect from time to time (the "General 5, Section 1 Rules"), are hereby incorporated by reference into this Nasdaq GEMX General 5, Section 1, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the General 5, Section 1 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the General 5, Section 1 Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the General 5, Section 1 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the General 5, Section 1 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Affiliate" in the General 5, Section 1 Rules shall be read to refer to the Nasdaq GEMX Affiliate; and the defined term "Member" in the General 5, Section 1 Rules shall be read to refer to the Nasdaq GEMX Member.

Section 2. Investigations and Sanctions

Series 8000 of the Nasdaq BX, Inc. Rules, as such rules may be in effect from time to time (the "BX Rule 8000 Series"), are hereby incorporated by reference into this Nasdaq GEMX Rules General 5, Section 2, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members, Associated Persons, and other persons subject to the Exchange's jurisdiction. Nasdaq GEMX Members, Associated Persons, and other persons subject to the Exchange's jurisdiction shall comply with the BX Rule 8000 Series as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the BX Rule 8000 Series shall be read to refer to the Nasdaq GEMX-related meaning of such term. The defined terms "Exchange" or "Nasdaq BX" in the BX Rule 8000 Series shall be read to refer to the Nasdaq GEMX Exchange; the defined terms "Rule" or "BX Rule" in the BX Rule 8000 Series shall be read to refer to the Nasdaq GEMX Rules; the defined terms "Board" or "Exchange Board" in the BX Rule 8000 Series shall be read to refer to the Nasdaq GEMX Board of Directors; the defined term "Member" in the BX Rule 8000 Series shall be read to refer to a Nasdaq GEMX Member; the defined term "Associated Person" shall be read to refer to a Nasdaq GEMX Associated Person; the defined terms "BX Regulatory Department" or "Regulation Department" shall be read to refer to the Nasdaq GEMX Regulatory Department; the defined terms "BX Regulation" shall be read to refer to "Nasdaq GEMX Regulation"; the defined term "Chief Regulatory Officer" shall be read to refer to the Chief Regulatory Officer of Nasdaq GEMX; and "Equity Rule" shall be read to refer to a Nasdaq GEMX Rule.

Additionally, references in the BX Rule 8000 Series to "Rule 0120" shall be read to refer to Nasdaq GEMX General 1, Section 1 and Options 1, Section 1. References in the BX Rule 8000 Series to "Rule 1015" shall be read to refer to Nasdaq GEMX General 3, Section 2.

Section 3. Code of Procedure

Series 9000 of the Nasdaq BX, Inc. Rules, as such rules may be in effect from time to time (the "BX Rule 9000 Series"), are hereby incorporated by reference into this Nasdaq GEMX Rules General 5, Section 3, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members, Associated Persons, and other persons subject to the Exchange's jurisdiction. Nasdaq GEMX Members, Associated Persons, and other persons subject to the Exchange's jurisdiction shall comply with the BX Rule 9000 Series as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the BX Rule 9000 Series shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined terms "Exchange" or "Nasdaq BX" in the BX Rule 9000 Series shall be read to refer to the Nasdaq GEMX Exchange; the defined terms "Rule" or "BX Rule" in the BX Rule 9000 Series shall be read to refer to the Nasdaq GEMX Rules; the defined terms "Board" or "Exchange Board" in the BX Rule 9000 Series shall be read to refer to the Nasdaq GEMX Board of Directors; the defined term "Member" in the BX Rule 9000 Series shall be read to refer to a Nasdaq GEMX Member; the defined term "Associated Person" shall be read to refer to a Nasdaq GEMX Associated Person; the defined terms "BX Regulatory Department" or "Regulation Department" shall be read to refer to the Nasdaq GEMX Regulatory Department; the defined terms "BX Regulation" shall be read to refer to "Nasdaq GEMX Regulation"; the defined term "Chief Regulatory Officer" shall be read to refer to the Chief Regulatory Officer of Nasdaq GEMX; and "Equity Rule" shall be read to refer to a Nasdaq GEMX Rule.

Additionally, references in the BX Rule 9000 Series to the following rules shall be read to refer to the following Nasdaq GEMX Rules: "Rule 0120" shall be read to refer to Nasdaq GEMX Rule General 1, Section 1 and Options 1, Section 1; "Rule 1013" shall be read to refer to Nasdaq GEMX General 3, Sections 4 and 5; "Rule 1070" shall be read to refer to the Supplementary Material to Nasdaq ISE General 4, Section 1.1210; "Rule 1160" shall be read to refer to Nasdaq GEMX General 3, Section 4(b); "Equity Rule 2110" shall be read to refer to Nasdaq GEMX Options 9; "Equity Rule 2120" shall be read to refer to Nasdaq GEMX Options 9; "Rule 2140" shall be read to refer to Nasdaq GEMX General 2, Section 4; "Equity Rule 2150" shall be read to refer to Nasdaq GEMX Options 10; "Rule 2170" shall be read to refer to Nasdaq GEMX Options 9; "Rule 4110A" shall be read to refer to Nasdaq GEMX Options 6D; "Rule 10000 Series" shall be read to refer to Nasdaq GEMX General 4; "Rule 4120A" shall be read to refer to Nasdaq GEMX Options 6D; and "Chapter III, Section 16" shall be read to refer to Nasdaq GEMX Options 9.

Notwithstanding the above, IM-9216 ("Violations Appropriate for Disposition Under Plan Pursuant to SEC Rule 19d-1(c)(2)") in the BX Rule 9000 Series shall not apply to the Nasdaq GEMX Exchange or to its Members, Associated Persons, or other persons subject to the jurisdiction of the Exchange. Instead, the Nasdaq GEMX Rule that governs such violations shall be Nasdaq GEMX Rule 1614(b) and references in the BX Rule 9000 Series to IM-9216 shall be read to refer to Nasdaq GEMX Options 11, Section 1(b). Moreover, the procedures set forth in BX Rule 9216(b) and 9143(e)(3), which shall govern the handling of violations of Rules listed in

Nasdaq GEMX Options 11, Section 1(b), that are subject to a plan approved by the Commission pursuant to SEC Rule 19d-1(c)(2) (the "Minor Rule Violation Plan" or "MRVP") and the issuance of MRVP letters, shall also apply to the Exchange's handling of violations of Rules listed in Nasdaq GEMX Options 11, Section 1(b) that are not subject to the MRVP ("minor rule violations") and the issuance of minor rule violation letters, except that the Exchange shall promptly report any final disciplinary action to the Commission, in accordance with SEC Rule 19d-1(c)(1).

Options Rules

Options 1 [Definitions]General Provisions

Section 1. Definitions

(a) The following terms, when used in these Rules, shall have the meanings specified in this Rule unless the context indicates otherwise. Any term defined in the Limited Liability Company Agreement (the "LLC Agreement") or the By-Laws of Nasdaq GEMX, LLC (the "By-Laws") and not otherwise defined in this Rule shall have the meaning assigned in the LLC Agreement or the By-Laws.

- (1) An "**account number**" shall mean a number assigned to a Member. Members may have more than one account number.
- (2) The term "**aggregate exercise price**" means the exercise price of an options contract multiplied by the number of units of the underlying security covered by the options contract.
- (3) The term "**American-style option**" means an options contract that, subject to the provisions of Options 6B (relating to the cutoff time for exercise instructions) and to the Rules of the Clearing Corporation, can be exercised on any business day prior to its expiration date and on its expiration date.
- (4) A "**badge**" shall mean an account number, which may contain letters and/or numbers, assigned to Market Makers. A Market Maker account may be associated with multiple badges.
- (5) The term "**bid**" means a quote or limit order to buy one or more options contracts.
- (6) The term "**call**" means an options contract under which the holder of the option has the right, in accordance with the terms of the option, to purchase from the Clearing Corporation the number of shares of the underlying security covered by the options contract.
- (7) The term "**class of options**" means all options contracts covering the same underlying security.
- (8) The term "**closing purchase transaction**" means an Exchange Transaction that will reduce or eliminate a short position in an options contract.

(9) The term "**closing writing transaction**" means an Exchange Transaction that will reduce or eliminate a long position in an options contract.

(10) The term "**CMM Rights**" means the non-transferable rights held by a Competitive Market Maker.

(11) The term "**Competitive Market Maker**" means a Member that is approved to exercise trading privileges associated with CMM Rights.

(12) The term "**covered short position**" means (i) the obligation of a writer of a call option is secured by a "specific deposit" or an "escrow deposit" meeting the conditions of Options 3, Section 3(f) or (h), respectively, of the Rules of the Clearing Corporation, or the writer holds in the same account as the short position, on a share-for-share basis, a long position either in the underlying security or in an options contract of the same type and class of options where the exercise price of the options contract in such long position is equal to or less than the exercise price of the options contract in such short position; and (ii) the writer of a put option holds in the same account as the short position, on a share-for-share basis, a long position in an options contract of the same type and class of options where the exercise price of the options contract in such long position is equal to or greater than the exercise price of the options contract in such short position.

(13) The term "**discretion**" means the authority of a broker or dealer to determine for a customer the type of option, the class or series of options, the number of contracts, or whether options are to be bought or sold.

(14) The term "**EAM Rights**" means the non-transferable rights held by an Electronic Access Member.

(15) The term "**European-style option**" means an options contract that, subject to the provisions of Options 6B (relating to the cutoff time for exercise instructions) and to the Rules of the Clearing Corporation, can be exercised only on its expiration date.

(16) The term "**Exchange Rights**" means the PMM Rights, CMM Rights and EAM Rights collectively.

(17) The term "**exercise price**" means the specified price per unit at which the underlying security may be purchased or sold upon the exercise of an options contract.

(18) The term "**in-the-money**" shall mean the following: for call options, all strike prices at or below the offer in the underlying security on the primary listing market; for put options, all strike prices at or above the bid in the underlying security on the primary listing market. This definition shall only apply for purposes of Market Maker quoting obligations in Options 3, Section 8 and Options 2, Section 4.

(19) The term "**long position**" means a person's interest as the holder of one or more options contracts.

(20) The term "**Market Makers**" refers to "Competitive Market Makers" and "Primary Market Makers" collectively.

(21) The term "**Market Maker Rights**" refers to PMM Rights and CMM Rights collectively.

(22) A "**mnemonic**" shall mean an acronym comprised of letters and/or numbers assigned to Electronic Access Members. An Electronic Access Member account may be associated with multiple mnemonics.

(23) The term "**Non-Customer**" means a person or entity that is a broker or dealer in securities.

(24) The term "**Non-Customer Order**" means an order for the account of a Non-Customer.

(25) The term "**offer**" means a quote or limit order to sell one or more options contracts.

(26) The term "**opening purchase transaction**" means an Exchange Transaction that will create or increase a long position in an options contract.

(27) The term "**opening writing transaction**" means an Exchange Transaction that will create or increase a short position in an options contract.

(28) The term "**out-of-the-money**" shall mean the following: for call options, all strike prices above the offer in the underlying security on the primary listing market; for put options, all strike prices below the bid in the underlying security on the primary listing market. This definition shall only apply for purposes of Market Maker quoting obligations in Options 3, Section 8 and Options 2, Section 4.

(29) The term "**options contract**" means a put or a call issued, or subject to issuance by the Clearing Corporation pursuant to the Rules of the Clearing Corporation.

(30) The term "**OPRA**" means the Options Price Reporting Authority.

(31) The term "**order**" means a commitment to buy or sell securities, the permitted types of which are set forth in Options 3, Section 7.

(32) The term "**outstanding**" means an options contract which has been issued by the Clearing Corporation and has neither been the subject of a closing writing transaction nor has reached its expiration date.

(33) The term "**PMM Rights**" means the non-transferable rights held by a Primary Market Maker.

(34) The term "**Primary Market Maker**" means a Member that is approved to exercise trading privileges associated with PMM Rights.

(35) The term "**Priority Customer**" means a person or entity that (i) is not a broker or dealer in securities, and (ii) does not place more than 390 orders in listed options per day on average during a calendar month for its own beneficial account(s).

(36) The term "**Priority Customer Order**" means an order for the account of a Priority Customer.

(37) The term "**Professional Order**" means an order that is for the account of a person or entity that is not a Priority Customer.

(i) Calculation of Professional Orders. With respect to computing the number of orders in listed options per day on average during a calendar month for its own beneficial account(s), the following shall apply:

(a) Each order is counted toward the number of orders, regardless of the options exchange to which the order was routed in determining Professional Orders.

(b) A cancel and replace order which replaces a prior order shall be counted as a second order, or multiple new orders in the case of "single-strike algorithms" which track the Best Bid and Offer ("BBO") or National Best Bid and Offer ("NBBO"). A cancel message is not an order.

(c) An order that converts into multiple subordinate orders to achieve an execution strategy shall be counted as one order per side and series, even if the order is routed away. An order that cancels and replaces the resulting subordinate order and results in multiple sides/series shall be counted as a new order per side and series. An order that cancels and replaces the subordinate order on the same side and series will count as one order. For purposes of counting customer orders, if one customer order on the same side and series is subsequently broken-up by a broker into multiple orders for purposes of execution or routed away, this order will count as one order.

(38) The term "**Professional Customer**" means a non-broker/dealer participant who enters at least 390 orders per day on average during a calendar month for its own beneficial account(s).

(39) The term "**proprietary trading**" for purposes of Rule 1210 means trading done by a Member having the characteristics:

(A) The Member is not required by Section 15(b)(8) of the Exchange Act to become a FINRA Member but is a member of another registered securities exchange not registered solely under Section 6(g) of the Exchange Act;

(B) All funds used or proposed to be used by the Member are the trading Member's own capital, traded through the Member's own accounts;

(C) The Member does not, and will not, have customers; and

(D) All persons registered on behalf of the member acting or to be acting in the capacity of a trader must be owners of, employees of, or contractors to the Member.

(40) The term "**Public Customer**" means a person or entity that is not a broker or dealer in securities.

(41) The term "**Public Customer Order**" means an order for the account of a Public Customer.

(42) The term "**put**" means an options contract under which the holder of the option has the right, in accordance with the terms and provisions of the option, to sell to the Clearing Corporation the number of shares of the underlying security covered by the options contract.

(43) The term "**Quarterly Options Series**" means a series in an options class that is approved for listing and trading on the Exchange in which the series is opened for trading on any business day and that expires at the close of business on the last business day of a calendar quarter.

(44) The term "**quote**" or "**quotation**" means a bid or offer entered by a Market Maker that updates the Market Maker's previous bid or offer, if any.

(45) The term "**series of options**" means all options contracts of the same class having the same exercise price and expiration date.

(46) The term "**short position**" means a person's interest as the writer of one or more options contracts.

(47) The term "**Short Term Option Series**" means a series in an option class that is approved for listing and trading on the Exchange in which the series is opened for trading on any Monday, Tuesday, Wednesday, Thursday, or Friday that is a business day and that expires on the Monday, Wednesday or Friday of the following business week that is a business day, or, in the case of a series that is listed on a Friday and expires on a Monday, is listed one business week and one business day prior to that expiration. If a Tuesday, Wednesday, Thursday or Friday is not a business day, the series may be opened (or shall expire) on the first business day immediately prior to that Tuesday, Wednesday,

Thursday or Friday. For a series listed pursuant to this section for Monday expiration, if a Monday is not a business day, the series shall expire on the first business day immediately following that Monday.

(48) The term "**System**" means the electronic system operated by the Exchange that receives and disseminates quotes, executes orders and reports transactions.

(49) The term "**type of option**" means the classification of an options contract as either a put or a call.

(50) The term "**uncovered**" means a short position in an options contract that is not covered.

(51) The term "**Voluntary Professional**" means any Public Customer that elects, in writing, to be treated in the same manner as a broker or dealer in securities for purposes of Options 3, Sections 10, 11, 13, as well as the Exchange's Pricing Schedule.

Section 2. Reserved

Options 2 Options [Trading Rules]Market Participants

Section 1. Registration of Market Makers

(a) A Market Maker is a Member with Designated Trading Representatives registered pursuant to Options 2, Section 2. Market Makers are registered with the Exchange for the purpose of making transactions as dealer-specialist in accordance with the provisions of this Rule. Registered Market Makers are designated as specialists on the Exchange for all purposes under the Exchange Act and the rules and regulations thereunder.

(b) To register as a Competitive or Primary Market Maker, a Member shall file an application in writing on such forms as the Exchange may prescribe. Applications shall be reviewed by the Exchange, which shall consider an applicant's market making ability and such other factors as the Exchange deems appropriate. After reviewing the application, the Exchange shall either approve or disapprove the applicant's registration as a Competitive or Primary Market Maker.

(c) The registration of any Member as a Competitive or Primary Market Maker may be suspended or terminated by the Exchange upon a determination that such Member has failed to properly perform as a Market Maker.

Section 2. Designated Trading Representatives

(a) Market Maker quotations and orders may be submitted to the Exchange's System only by Designated Trading Representatives ("DTRs"). A DTR is permitted to enter quotes and orders only for the account of the Market Maker with which he is associated.

(b) *Registration of Designated Trading Representatives.* The Exchange may, upon receiving an application in writing from a Market Maker on a form prescribed by the Exchange, approve a person as a DTR.

(1) DTRs may be:

(A) individual Members registered with the Exchange as Market Makers, or

(B) officers, partners, employees or associated persons of Members that are registered with the Exchange as Market Makers.

(2) The Exchange may require a Market Maker to provide additional information the Exchange considers necessary to establish whether a person should be approved.

(3) A person may be conditionally approved as a DTR subject to any conditions the Chief Regulatory Officer considers appropriate in the interests of maintaining a fair and orderly market.

(c) Suspension or Withdrawal of Registration.

(1) The Exchange may suspend or withdraw the registration previously given to a person to be a DTR if the Exchange determines that:

(A) the person has caused the Market Maker to fail to comply with the Rules of the Exchange;

(B) the person is not properly performing the responsibilities of a DTR;

(C) the person has failed to meet the conditions set forth under paragraph (b) above; or

(D) the Exchange believes it is in the best interest of fair and orderly markets.

(2) If the Exchange suspends the registration of a person as a DTR, the Market Maker must not allow the person to submit quotes and orders into the Exchange's System.

(3) The registration of a DTR will be withdrawn upon the written request of the Member for which the DTR is registered. Such written request shall be submitted on the form prescribed by the Exchange.

Section 3. Appointment of Market Makers

(a) In the manner prescribed by the Exchange, a Market Maker may seek appointment to one or more options classes traded on the Exchange. The Board or a committee designated by the Board shall appoint classes of options contracts traded on the Exchange to Market Makers taking into consideration: (i) the financial resources available to the Market Maker, (ii) the Market Maker's experience and expertise in market making or options trading, and (iii) the maintenance and enhancement of competition among Market Makers in each class of options contracts to which they are appointed. The Board or designated committee shall make appointments in the best interest of the Exchange to provide competitive markets. No appointment of a Market Maker shall be without the Market Maker's consent to such appointment, provided that refusal to

accept an appointment may be deemed sufficient cause for termination or suspension of a Market Maker's registration.

(b) Appointments to Primary Market Makers. A Primary Market Maker shall be appointed to each options class traded on the Exchange.

(1) A Primary Market Maker seeking appointment to options on equity indexes, foreign currency indexes, foreign currency options and Exchange-Traded Fund Shares (collectively "Index-Based Products") shall provide, at the discretion of the Exchange, and upon its request, specific performance commitments, which shall include, at a minimum, commitments regarding (i) the average quotation size it will disseminate in the Index-Based Product, and (ii) the maximum quotation spread it will disseminate in such product at least ninety percent of the time.

(c) Appointments to Competitive Market Makers. Competitive Market Makers may request appointments to options classes traded on the Exchange, subject to the trading licensing requirements of Options 4A, Section 16 with respect to index options.

(1) On a quarterly basis, the Exchange shall assign points to each options class equal to its percentage of overall industry volume (not including exclusively traded index options), rounded down to the nearest one hundredth of a percentage with a maximum of 15 points. New listings will be assigned a point value of zero for the remainder of the quarter in which it was listed.

(2) A Competitive Market Maker may seek appointments to options classes that total: (A) 20 points for the first CMM Right it holds; and (B) 10 points for the second and each subsequent CMM Right it holds.

(3) A Competitive Market Maker may request changes to its appointments at any time upon advance notification to the Exchange in a form and manner prescribed by the Exchange.

(d) The Exchange may suspend or terminate any appointment of a Market Maker under this Rule and may make additional appointments whenever, in the Exchange's judgment, the interests of a fair and orderly market are best served by such action. In the case of an Index-Based Product, during the term of that appointment, the Exchange may also base a decision to suspend or terminate a Primary Market Maker's appointment on the failure of the Primary Market Maker to meet the terms of its commitments under paragraph (b)(1) above.

(e) Market Maker Performance. In making appointments to Market Makers, the Exchange may evaluate the performance of Market Makers relating to, among other things, quality of markets, competition among Market Makers, observance of ethical standards, and administrative factors. The Exchange may consider any relevant information, including but not limited to the results of a Market Maker evaluation questionnaire, trading data, a Market Maker's regulatory history and such other factors and data as may be pertinent in the circumstances. Moreover, failure by a Market Maker to meet minimum performance standards may result in, among other things: (1) suspension, termination or restriction of an appointment to one or more of the options classes appointed to the Market Maker; (2) restriction of appointments to additional options classes; or (3) suspension, termination, or restriction of the Market Maker's registration.

Supplementary Material to Options 2, Section 3

.01 Index-Based Options. Pursuant to paragraph (b)(1) of Options 2, Section 3, a Primary Market Maker shall specify the average size and maximum quotation spread to which it will commit on a quarterly basis for four successive calendar quarters. The Primary Market Maker may specify differing size and quotation commitments for different series of an options class, such as by committing to a larger size and narrower quotations for the at-the-money series or series nearer to expiration. A Primary Market Maker also may, but is not required to, provide commitments regarding marketing or other support with respect to the Index-Based Product. In addition, a Primary Market Maker may, but is not required to, provide information regarding order flow arrangements with order flow providers. When an Index-Based Product is allocated to a Primary Market Maker, that Primary Market Maker's size and spread quotations for the fourth quarter following listing shall remain in effect thereafter on a quarter-to-quarter basis unless the Primary Market Maker has requested, and the Exchange or designated committee has approved, a change in such commitments. Any other commitments that a Primary Market Maker has made also shall remain in effect until modified by the Exchange or designated committee upon the request of the Primary Market Maker.

.02 A Member that is approved to act in the capacity of a Competitive Market Maker with respect to one or more CMM Rights may voluntarily be appointed to act as an "Alternative Primary Market Maker," so long as the Exchange has determined that such Member has the appropriate systems and procedures in place to undertake the responsibilities of a Primary Market Maker.

(a) The Exchange may appoint an Alternative Primary Market Maker to an options class only in the event that no Primary Market Makers seek allocation of the security.

(b) If no Primary Market Makers seek allocation of an options class, all eligible Competitive Market Makers will be given notice and an opportunity to seek allocation of the security as an Alternative Primary Market Maker. Such allocations will be made by the Allocation Committee according to the guidelines contained in Options 2, Section 3.

(c) An Alternative Primary Market Maker shall have all of the responsibilities and privileges of a Primary Market Maker under the Rules with respect to all appointed options classes.

(d) If an Alternative Primary Market Maker ceases trading of an options class, the class will be reallocated by the Exchange to a Primary Market Maker or another Alternative Primary Market Maker, as appropriate.

.03 There is no restriction on a Competitive Market Maker seeking appointment to options classes in which it or an affiliated Market Maker holds a Competitive Market Maker or Primary Market Maker appointment, provided that such Member has sufficient Competitive Market Maker points for each such appointment.

Section 4. Obligations of Market Makers

(a) General. Transactions of a Market Maker should constitute a course of dealings reasonably calculated to contribute to the maintenance of a fair and orderly market, and Market Makers should not make bids or offers or enter into transactions that are inconsistent with such a course of dealings. Ordinarily, Market Makers are expected to:

(1) Refrain from purchasing a call option or a put option at a price more than \$0.25 below parity, although a larger amount may be appropriate considering the particular market conditions. In the case of calls, parity is measured by the bid in the underlying security, and in the case of puts, parity is measured by the offer in the underlying security.

(2) The \$0.25 amount above may be increased, or the provisions of this Rule may be waived, by the Exchange on a series-by-series basis.

(b) Appointment. With respect to each options class to which a Market Maker is appointed under Options 2, Section 3, the Market Maker has a continuous obligation to engage, to a reasonable degree under the existing circumstances, in dealings for his own account when there exists, or it is reasonably anticipated that there will exist, a lack of price continuity, a temporary disparity between the supply of and demand for a particular options contract, or a temporary distortion of the price relationships between options contracts of the same class. Without limiting the foregoing, a Market Maker is expected to perform the following activities in the course of maintaining a fair and orderly market:

(1) To compete with other Market Makers to improve the market in all series of options classes to which the Market Maker is appointed.

(2) To make markets that, absent changed market conditions, will be honored for the number of contracts entered into the Exchange's System in all series of options classes to which the Market Maker is appointed.

(3) To update market quotations in response to changed market conditions in all series of options classes to which the Market Maker is appointed.

(4) To price options contracts fairly by, among other things, bidding and offering so as to create differences of no more than \$5 between the bid and offer following the opening rotation in an equity or index options contract. The Exchange may establish differences other than the above for one or more series or classes of options.

(i) The bid/offer differentials stated in subparagraph (b)(4) of this Rule shall not apply to in-the-money options series where the underlying securities market is wider than the differentials set forth above. For these series, the bid/ask differential may be as wide as the spread between the national best bid and offer in the underlying security.

(ii) The Exchange or its authorized agent may calculate bids and asks for various indices for the sole purpose of determining permissible bid/ask differentials on options on these indices. These values will be calculated by determining the

weighted average of the bids and asks for the components of the corresponding index. These bids and asks will be disseminated by the Exchange at least every fifteen (15) seconds during the trading day solely for the purpose of determining the permissible bid/ask differential that market-makers may quote on an in-the-money option on the indices. For in-the-money series in index options where the calculated bid/ask differential is wider than the applicable differential set out in subparagraph (b)(4) of this Rule, the bid/ask differential in the index options series may be as wide as the calculated bid/ask differential in the underlying index. The Exchange will not make a market in the basket of stock comprising the indices and is not guaranteeing the accuracy or the availability of the bid/ask values.

(c) Classes of Options To Which Not Appointed. With respect to classes of options to which a Market Maker is not appointed, it should not engage in transactions for an account in which it has an interest that are disproportionate in relation to, or in derogation of, the performance of his obligations as specified in paragraph (b) above with respect to those classes of options to which it is appointed. Market Makers should not:

(1) Individually or as a group, intentionally or unintentionally, dominate the market in options contracts of a particular class, or

(2) Effect purchases or sales on the Exchange except in a reasonable and orderly manner.

Supplementary Material to Options 2, Section 4

.01 A Primary Market Maker must act with due diligence in handling orders of Public Customers and must accord priority to such orders addressed pursuant to paragraph (c) of this Rule over the Primary Market Maker's principal orders.

.02 With respect to the Exchange's business continuity and disaster recovery plans, including its backup systems, the Exchange shall:

(a) Establish standards for the designation of those Members that the Exchange reasonably determines are, taken as a whole, the minimum necessary for the maintenance of fair and orderly markets in the event of the activation of such plans. Such standards may include volume-based and/or market share-based criteria, and may be adjusted from time to time by the Exchange. The Exchange will provide public notice of the standards.

(b) Designate Members pursuant to the standards established in paragraph (a) of this Rule and require participation by such designated Members in scheduled functional and performance testing of the operation of such plans, in the manner and frequency specified by the Exchange, provided that such frequency shall not be less than once every 12 months. The Exchange will provide at least six months prior notice to Members that are designated for mandatory testing, and participation of such Members is a condition of membership.

Section 5. Market Maker Quotations

(a) Options Classes. A quotation only may be entered by a Market Maker, and only in the options classes to which the Market Maker is appointed under Options 2, Section 3.

(b) Price and Size Associated with Quotes. A Market Maker's bid and offer for a series of options contracts shall state a price accompanied by the number of contracts at that price the Market Maker is willing to buy or sell upon receipt of an order or upon interaction with a quotation entered by another Market Maker on the Exchange.

(1) Price. The price of Market Maker quotes shall be in the minimum trading increments applicable to the security under Options 3, Section 3.

(2) Size. Unless the Exchange has declared a fast market pursuant to Options 3, Section 6, the initial size of a Market Maker's opening quote must be for the minimum number of contracts determined by the Exchange on a class by class basis, which minimum shall be at least one contract.

(c) Two-Sided Quotes. A Market Maker that enters a bid (offer) on the Exchange must enter an offer (bid) within the spread allowable under Options 2, Section 4(b)(4).

(d) Firm Quotes.

(1) Market Maker bids and offers are firm for orders and Exchange Market Maker quotations both under this Rule and Rule 602 of Regulation NMS under the Exchange Act ("Rule 602 of Reg NMS") for the number of contracts specified according to the requirements of paragraph (b) above. Market Maker bids and offers are not firm under this Rule and Rule 602 of Reg NMS if:

(i) a System malfunction or other circumstance impairs the Exchange's ability to disseminate or update market quotes in a timely and accurate manner;

(ii) the level of trading activities or the existence of unusual market conditions is such that the Exchange is incapable of collecting, processing, and making available to quotation vendors the data for the option in a manner that accurately reflects the current state of the market on the Exchange, and as a result, the market in the option is declared to be "fast" pursuant to Options 3, Section 6;

(iii) during trading rotations; or

(iv) any of the circumstances provided in paragraph (c)(3) of Rule 602 of Reg NMS exist.

(2) Notwithstanding paragraph (1) above, if a Market Maker's bid (offer) can trade with the offer (bid) of another Market Maker, the Exchange shall have the authority to implement a delay so that no execution shall occur between such quotations for a period of no more than one second. During such period, the System will update quotations that

may be received; provided however, that during such period all quotations shall otherwise remain firm and the System shall automatically execute all incoming orders against such quotations.

(e) *Intra-day Quotes.* A Market Maker must enter bids and offers for the options to which it is appointed, except in an assigned options series listed intra-day on the Exchange. On a daily basis, a Market Maker must make markets consistent with the applicable quoting requirements specified below. A Member will be required to meet each market making obligation separately. A Competitive Market Maker who is also the Primary Market Maker will be held to the Primary Market Maker obligations in the options series in which the Primary Market Maker is assigned and will be held to Competitive Market Maker obligations in all other options series where assigned. A Competitive Market Maker who receives a Preferred Order, as described in Supplementary Material .03 to Options 3, Section 10, ("Preferred CMM") shall be held to the standard of a Preferred CMM in the options series of any options class in which it receives the Preferred Order.

(1) On any given day, a Competitive Market Maker is not required to enter quotations in the options classes to which it is appointed. A Competitive Market Maker may initiate quoting in options classes to which it is appointed intra-day. If a Competitive Market Maker initiates quoting in an options class, the Competitive Market Maker, associated with the same Member, is collectively required to provide two-sided quotations in 60% of the cumulative number of seconds, or such higher percentage as the Exchange may announce in advance, for which that Member's assigned options class is open for trading. Notwithstanding the foregoing, a Competitive Market Maker shall not be required to make two-sided markets pursuant to this Rule in any Quarterly Options Series, any adjusted options series, and any option series with an expiration of nine months or greater for options on equities and exchange-traded funds ("ETFs") or with an expiration of twelve months or greater for index options. Competitive Market Makers may choose to quote such series in addition to regular series in the options class, but such quotations will not be considered when determining whether a Competitive Market Maker has met the obligation contained in this paragraph (e)(1).

(i) An adjusted options series is an options series wherein, as a result of a corporate action by the issuer of the underlying security, one option contract in the series represents the delivery of other than 100 shares of underlying stock or Exchange-Traded Fund Shares ("Adjusted Options Series").

(ii) A Competitive Market Maker may be called upon by an Exchange official designated by the Board to submit a single quote or maintain intra-day quotes in one or more of the series of an options class to which the Competitive Market Maker is appointed whenever, in the judgment of such official, it is necessary to do so in the interest of fair and orderly markets.

(2) Primary Market Makers, associated with the same Member, are collectively required to provide two-sided quotations in 90% of the cumulative number of seconds, or such higher percentage as the Exchange may announce in advance, for which that Member's

assigned options class is open for trading. Primary Market Makers shall be required to make two-sided markets pursuant to this Rule in any Quarterly Options Series, any Adjusted Options Series, and any option series with an expiration of nine months or greater for options on equities and ETFs or with an expiration of twelve months or greater for index options.

(3) Preferred CMMs, associated with the same Member, are collectively required to provide two-sided quotations in 90% of the cumulative number of seconds, or such higher percentage as the Exchange may announce in advance, for which that Member's assigned options class is open for trading. A Member shall be considered preferenced in an assigned options class once the Member receives a Preferenced Order in any option class in which they are assigned and shall be considered preferenced for that day in all series for that option class in which it received the Preferenced Order. Notwithstanding the foregoing, a Preferred CMM shall not be required to make two-sided markets pursuant to this Rule in any Quarterly Options Series, any Adjusted Options Series, and any options series with an expiration of nine months or greater for options on equities and ETFs or with an expiration of twelve months or greater for index options. Preferred CMMs may choose to quote such series in addition to regular series in the options class, but such quotations will not be considered when determining whether a Preferred CMM has met the obligation contained in this paragraph (e)(3). A Preferred CMM may be preferenced in such series and receive enhanced allocations pursuant to Nasdaq GEMX Options 3, Section 10, Supplementary Material .02, only if it complies with the heightened 90% quoting requirement contained in this paragraph (e)(3).

(4) Specifically, the Exchange will calculate subparagraphs (1) - (3) above by (i) taking the total number of seconds the Member disseminates quotes in each assigned options series, excluding, for Competitive Market Makers and Preferred CMMs, Quarterly Options Series, any Adjusted Options Series, and any option series with an expiration of nine months or greater for options on equities and ETFs or with an expiration of twelve months or greater for index options; and (ii) dividing that time by the eligible total number of seconds each assigned option series in the options class is open for trading that day. Quoting is not required in every assigned options series. Compliance with this requirement is determined by reviewing the aggregate of quoting in assigned options series for the Member.

(5) GEMX Regulation may consider exceptions to the above-referenced requirement to quote based on demonstrated legal or regulatory requirements or other mitigating circumstances. For purposes of the Exchange's surveillance of Member compliance with this Rule, the Exchange will determine compliance on a monthly basis. The Exchange's monthly compliance evaluation of the quoting requirement does not relieve a Member of the obligation to provide two-sided quotes on a daily basis, nor will it prohibit the Exchange from taking disciplinary action against a Member for failing to meet the quoting obligation each trading day.

(6) If a technical failure or limitation of a System of the Exchange prevents a Market Maker from maintaining, or prevents a Member from communicating to the Exchange,

timely and accurate quotes, the Member shall promptly notify the Exchange and the duration of such failure or limitation shall not be included in any of the calculations under this subparagraph (e) with respect to the affected quotes.

(f) *Temporary Withdrawal of Quotations by Primary Market Makers.* A Primary Market Maker may apply to the Exchange to withdraw temporarily from its Primary Market Maker status in an options class. The Primary Market Maker must base its request on demonstrated legal or regulatory requirements that necessitate its temporary withdrawal, or provide the Exchange an opinion of counsel certifying that such legal or regulatory basis exists. The Exchange will act promptly on such a request, and, if the request is granted, the Exchange will temporarily reassign the options class to another Primary Market Maker.

(1) The Exchange Review Council shall have jurisdiction over proceedings brought by Primary Market Makers seeking review of the denial of an excused withdrawal pursuant to this Rule or the conditions imposed on their reentry.

(g) In order to control the number of quotations the Exchange shall disseminate an updated bid and offer price, together with the size associated with such bid and offer, when: (1) the Exchange's disseminated bid or offer price increases or decreases; (2) the size associated with the Exchange's disseminated bid or offer decreases; or (3) the size associated with the Exchange's bid (offer) increases by an amount greater than or equal to a percentage (never to exceed 20%) of the size associated with previously disseminated bid (offer). Such percentage, which shall never exceed 20%, shall be determined on an issue-by-issue basis by the Exchange and announced to membership via an Exchange Options Trader Alert.

Section 6. Market Maker Orders

(a) *Options Classes to Which Appointed.* Market Makers may enter all order types defined in Options 3, Section 7 in the options classes to which they are appointed under Options 2, Section 3, except Stopped Orders, Reserve Orders and Customer Cross Orders. Competitive Market Makers shall comply with the provisions of Options 2, Section 5(e)(1) upon the entry of such orders if they were not previously quoting in the series.

(b) *Options Classes Other Than Those to Which Appointed.*

(1) A Market Maker may enter all order types permitted to be entered by non-customer participants under the Rules to buy or sell options in classes of options listed on the Exchange to which the Market Maker is not appointed under Options 2, Section 3, except for Reserve Orders, provided that:

(i) the spread between a limit order to buy and a limit order to sell the same options contract complies with the parameters contained in Options 2, Section 4(b)(4); and

(ii) the Market Maker does not enter orders in options classes to which it is otherwise appointed, either as a Competitive or Primary Market Maker.

(2) Competitive Market Makers. The total number of contracts executed during a quarter by a Competitive Market Maker in options classes to which it is not appointed may not exceed twenty-five percent (25%) of the total number of contracts traded by such Competitive Market Maker in classes to which it is appointed and with respect to which it was quoting pursuant to Options 2, Section 5(e)(1).

(3) Primary Market Makers. The total number of contracts executed during a quarter by a Primary Market Maker in options classes to which it is not appointed may not exceed twenty-five percent (25%) of the total number of contracts traded per each Primary Market Maker Membership.

Section 7. Securities Accounts and Orders of Market Makers

(a) Identification of Accounts. A Primary Market Maker in the Exchange-Traded Fund Shares, as defined in Options 4, Section 3(h), is obligated to conduct all trading in the Exchange-Traded Fund Shares in account(s) that have been reported to the Exchange. In addition, in a manner prescribed by the Exchange, each Market Maker shall file with the Exchange and keep current a list identifying all accounts for stock, options, non-U.S. currency, non-U.S. currency options, futures or options on futures on such currency, or any other derivatives based on such currency, physical commodities, physical commodity options, commodity futures contracts, options on commodity futures contracts, any other derivatives based on such commodity and related securities trading in which the Market Maker may, directly or indirectly, engage in trading activities or over which it exercises investment direction. No Market Maker shall engage in stock, options, non-U.S. currency, non-U.S. currency options, futures or options on futures on such currency, physical commodities, physical commodity options, commodity futures contracts, options on commodity futures contracts, any other derivatives based on such commodity or any other derivatives based on such currency or related securities trading in an account which has not been reported pursuant to this Rule.

(b) Reports of Orders. Each Market Maker shall, upon the request of the Exchange and in the prescribed form, report to the Exchange every order entered by the Market Maker for the purchase or sale of (i) a security underlying options traded on the Exchange, or (ii) a security convertible into or exchangeable for such underlying security, as well as opening and closing positions in all such securities held in each account reported pursuant to paragraph (a) of this Rule. The report pertaining to orders must include the terms of each order, identification of the brokerage firms through which the orders were entered, the times of entry or cancellation, the times report of execution were received and, if all or part of the order was executed, the quantity and execution price.

(c) Joint Accounts. No Market Maker shall, directly or indirectly, hold any interest or participate in any joint account for buying or selling any options contract unless each participant in such joint account is a Member and unless such account is reported to and not disapproved by the Exchange. Such reports in a form prescribed by the Exchange shall be filed with the Exchange before any transaction is effected on the Exchange for such joint account. A participant in a joint account must:

(1) Be either a Market Maker or a Clearing Member that carries the joint account.

(2) File and keep current a completed application on such form as is prescribed by the Exchange.

(3) Be jointly and severally responsible for assuring that the account complies with all the Rules of the Exchange.

(4) Not be a Market Maker appointed to the same options classes to which the joint account holder is also appointed as a Market Maker.

Section 8. Financial Requirements for Market Makers

(a) Primary Market Makers. Every Primary Market Maker shall maintain net liquidating equity of not less than \$3,250,000 plus \$25,000 excess equity for each underlying security upon which appointed options are open for trading in excess of the initial ten (10) underlying securities.

(b) Competitive Market Makers. Every Competitive Market Maker shall maintain net liquidating equity of not less than \$1,000,000.

(c) Each Market Maker that makes an arrangement to finance his transactions as a Market Maker must identify to the Exchange the source of the financing and its terms. The Exchange must be informed immediately of the intention of any party to terminate or change any such arrangement.

Supplementary Material to Options 2, Section 8

.01 For purposes of Options 2, Section 8, the term "net liquidating equity" means the sum of positive cash balances and long securities positions less negative cash balances and short securities positions.

Section 9. Reserved

Section 10. Reserved

Options 2A GEMX Market Maker Rights

Section 1. Reserved

Section 2. Approval to Operate Multiple Memberships

(a) An applicant to become a Member or an approved Member may seek approval to exercise trading privileges associated with more than one Membership in the form and manner prescribed by the Exchange.

(b) An applicant or approved Member will be denied approval with respect to a particular Membership if (together with any of its affiliates) approval would result in the applicant or approved Member being approved to exercise the trading privileges associated with more than 30% of the Exchange Rights issued and outstanding at any time. No Member shall exercise voting rights in excess of those permitted under the Exchange's By-Laws.

Options 3 Options [Market Participants]Trading Rules

Section 1. Days and Hours of Business

The Board shall determine the days the Exchange shall be open for business (referred to as "business days") and the hours of such days during which transactions may be made on the Exchange.

(a) Except for unusual conditions as may be determined by the Board, hours during which transactions in options on a narrow-based index, as defined in Options 4A, Section 2, and individual stocks may be made on the Exchange shall correspond to the normal business days and hours for business established by the markets currently trading the stocks underlying Exchange options.

(b) Options on Exchange-Traded Fund Shares, as defined in Options 4, Section 3 may be traded on the Exchange until 4:15 p.m. each business day.

(c) Options on a broad-based index, as defined in Options 4A, Section 2 may be traded on the Exchange until 4:15 p.m. each business day.

(d) Options on Index-Linked Securities, as defined in Options 4, Section 3 may be traded on the Exchange until 4:15 p.m. each business day.

(e) The Exchange shall not be open for business on the following holidays: New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day or Christmas Day. When any holiday observed by the Exchange falls on a Saturday, the Exchange will not be open for business on the preceding Friday. When any holiday observed by the Exchange falls on a Sunday, the Exchange will not be open for business on the following Monday, unless unusual business conditions exist at the time.

Section 2. Units of Trading and Meaning of Premium Quotes and Orders

(a) Units of Trading. The unit of trading in each series of options traded on the Exchange shall be the unit of trading established for that series by the Clearing Corporation pursuant to the Rules of the Clearing Corporation and the agreements of the Exchange with the Clearing Corporation.

(b) General. Except as provided in paragraph (b), orders and quotations shall be expressed in terms of dollars per unit of the underlying security. For example, a bid of "5" shall represent a bid of \$500 for an options contract having a unit of trading consisting of 100 shares of an underlying security, or a bid of \$550 for an options contract having a unit of trading consisting of 110 shares of an underlying security.

(b) Special Cases. Orders and quotations for an options contract for which the Exchange has established an adjusted unit of trading in accordance with this Rule shall be expressed in terms of dollars per 1/100 part of the total securities and/or other property constituting such adjusted unit of trading. For example, an offer of "3" shall represent an offer of \$300 for an options contract having a unit of trading consisting of 100 shares of an underlying security plus ten (10) rights.

(c) Mini Options. Bids and offers for an option contract overlying 10 shares shall be expressed in terms of dollars per 1/10th part of the total value of the contract. An offer of ".50" shall represent an offer of \$5.00 on an option contract having a unit of trading consisting of 10 shares.

Section 3. Minimum Trading Increments

(a) The Board may establish minimum trading increments for options traded on the Exchange. Such changes by the Board will be designated as a stated policy, practice, or interpretation with respect to the administration of this Rule within the meaning of paragraph (3)(A) of Section 19(b) of the Exchange Act and will be filed with the SEC as a rule change for effectiveness upon filing. Until such time as the Board makes a change in the increments, the following principles shall apply:

(1) if the options contract is trading at less than \$3.00 per option, \$.05; and

(2) if the options contract is trading at \$3.00 per option or higher, \$.10.

(b) Minimum trading increments for dealings in options contracts other than those specified in paragraph (a) may be fixed by the Exchange from time to time for options contracts of a particular series.

(c) Notwithstanding the above, the Exchange may trade in the minimum variation of the primary market in the underlying security.

Supplementary Material to Options 3, Section 3

.01 Notwithstanding any other provision of this Rule, the Exchange will operate a pilot program, scheduled to expire on December 31, 2019, to permit options classes to be quoted and traded in increments as low as \$.01. The Exchange will specify which options trade in such pilot, and in what increments, in Options Trader Alerts distributed to Members.

The Exchange may replace any penny pilot issues that have been delisted with the next most actively traded multiply listed options classes that are not yet included in the penny pilot, based on trading activity in the previous six months. The replacement issues may be added to the penny pilot on the second trading day in the first month of each quarter.

.02 Notwithstanding any other provision of this Rule, the Exchange will permit foreign currency options and options on a Foreign Currency Index to be quoted and traded in one-cent increments.

.03 Notwithstanding any other provision of this Rule, the minimum trading increment for Mini Options shall be determined in accordance with Supplementary Material .13(d) to Options 4, Section 5.

Section 4. Acceptance of Quotes and Orders

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

(b) A trade 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.

Section 5. Reserved

Section 6. Collection and Dissemination of Quotes

(a) Each Market Maker shall communicate to the Exchange its bid and offers in accordance with the requirements of Rule 602 of Regulation NMS under the Exchange Act and the Rules of the Exchange.

(b) The Exchange will disseminate to quotation vendors the highest bid and the lowest offer, and the aggregate quotation size associated therewith that is available to Public Customer Orders, in accordance with the requirements of Rule 602 of Regulation NMS under the Exchange Act.

(c) *Unusual Market Conditions.*

(1) An Exchange official designated by the Board shall have the power to determine that the level of trading activities or the existence of unusual market conditions is such that the Exchange is incapable of collecting, processing, and making available to quotation vendors the data for the option in a manner that accurately reflects the current state of the market on the Exchange. Upon making such a determination, the Exchange shall designate the market in such option to be "fast." When a market for an option is declared fast, the Exchange will provide notice that its quotations are not firm by appending an appropriate indicator to its quotations.

(2) If a market is declared fast, designated Exchange officials shall have the power to: (i) direct that one or more trading rotations be employed pursuant to Options 3, Section 8; (ii) suspend the minimum size requirement of Options 2, Section 5(b); or (iii) take such other actions as are deemed in the interest of maintaining a fair and orderly market.

(3) The Exchange will monitor the activity or conditions that caused a fast market to be declared, and a designated Exchange official shall review the condition of such market at least every thirty (30) minutes. Regular trading procedures shall be resumed by the Exchange when a designated Exchange official determines that the conditions supporting a fast market declaration no longer exist. The Exchange will provide notice that its quotations are once again firm by removing the indicator from its quotations.

(4) If the conditions supporting a fast market declaration cannot be managed utilizing one or more of the procedures described above, then a designated Exchange official shall halt trading in the class or classes so affected.

Section 7. Types of Orders

(a) *Market Orders.* A market order is an order to buy or sell a stated number of options contracts that is to be executed at the best price obtainable when the order reaches the Exchange.

(b) *Limit Orders.* A limit order is an order to buy or sell a stated number of options contracts at a specified price or better.

(1) *Marketable Limit Orders.* A marketable limit order is a limit order to buy (sell) at or above (below) the best offer (bid) on the Exchange.

(2) *Fill-or-Kill Orders.* A fill-or-kill order is a limit order that is to be executed in its entirety as soon as it is received and, if not so executed, treated as cancelled.

(3) *Immediate-or-Cancel Orders.* An immediate-or-cancel order is a limit order that is to be executed in whole or in part upon receipt. Any portion not so executed is to be treated as cancelled. An immediate-or-cancel order entered by a Market Maker through the Specialized Quote Feed protocol will not be subject to the Limit Order Price Protection and Size Limitation Protection as defined in GEMX Options 3, Section 15(b)(2) and (3).

(4) *Reserved.*

(5) *Intermarket Sweep Orders.* An Intermarket Sweep Order (ISO) is a limit order that meets the requirements of Options 5, Section 1(h).

(6) *Stopped Order.* A stopped order is a limit order that meets the requirements of Options 5, Section 2(b)(8). To execute stopped orders, Members must enter them into the Facilitation Mechanism or Solicited Order Mechanism pursuant to Options 3, Section 11.

(c) *All-Or-None Orders.* An All-Or-None order is a limit or market order that is to be executed in its entirety or not at all. An All-Or-None Order may only be entered as an Immediate-or-Cancel Order.

(d) *Stop Orders.* A stop order is an order that becomes a market order when the stop price is elected. A stop order to buy is elected when the option is bid or trades on the Exchange at, or above, the specified stop price. A stop order to sell is elected when the option is offered or trades on the Exchange at, or below, the specified stop price.

(e) *Stop Limit Orders* A stop limit order is an order that becomes a limit order when the stop price is elected. A stop limit order to buy is elected when the option is bid or trades on the Exchange at, or above, the specified stop price. A stop limit order to sell becomes a sell limit order when the option is offered or trades on the Exchange at, or below, the specified stop price.

(f) *Reserved.*

(g) *Reserve Orders.* A Reserve Order is a limit order that contains both a displayed portion and a non-displayed portion.

1. Both the displayed and non-displayed portions of a Reserve Order are available for potential execution against incoming marketable orders. A non-marketable Reserve Order will rest on the order book.

2. The displayed portion of a Reserve Order shall be ranked at the specified limit price and the time of order entry.
3. The displayed portion of a Reserve Order will trade in accordance with Options 3, Section 10 (c) and (d) for Priority Customer Orders, and Options 3, Section 10(e) and Supplementary Material .01, for Professional Orders.
4. When the displayed portion of a Reserve Order is decremented, either in full or in part, it shall be refreshed from the non-displayed portion of the resting Reserve Order. If the displayed portion is refreshed in part, the new displayed portion shall include the previously displayed portion. Upon any refresh, the entire displayed portion shall be ranked at the specified limit price and obtain a new time stamp, i.e., the time that the new displayed portion of the order was refreshed. The new displayed portion will trade in accordance with Options 3, Section 10(c) and (d) for Priority Customer Orders, and Options 3, Section 10(e) and Supplementary Material .01, for Professional Orders.
5. The initial non-displayed portion of a Reserve Order rests on the order book and is ranked based on the specified limit price and time of order entry. Thereafter, non-displayed portions, if any, always obtain the same time stamp as that of the new displayed portion in paragraph 4 above. The non-displayed portion of any Reserve Order is available for execution only after all displayed interest has been executed. The non-displayed portion of any Reserve Order will trade in accordance with Options 3, Section 10(c) and (d) for Priority Customer Orders, and Options 3, Section 10(e) and Supplementary Material .01, for Professional Orders.

(h) *Attributable Order.* An Attributable Order is a market or limit order which displays the user firm ID for purposes of electronic trading on the Exchange. Use of Attributable Orders is voluntary. Attributable Orders may not be available for all Exchange Systems. The Exchange will issue a Options Regulatory Alert specifying the Systems and the class of securities for which the Attributable Order type shall be available.

(i) *Customer Cross Orders.* A Customer Cross Order is comprised of a Priority Customer Order to buy and a Priority Customer Order to sell at the same price and for the same quantity.

(j) *Qualified Contingent Cross Order.* A Qualified Contingent Cross Order is comprised of an originating order to buy or sell at least 1000 contracts that is identified as being part of a qualified contingent trade, as that term is defined in Supplementary Material .01 below, coupled with a contra-side order or orders totaling an equal number of contracts.

(k) *Reserved*

(l) *Day Order.* An order to buy or sell which, if not executed, expires at the end of the day on which it was entered. All orders by their terms are Day Orders unless otherwise specified.

(m) *Do-Not-Route Orders.* A do-not-route order is a market or limit order that is to be executed in whole or in part on the Exchange only. Due to prices available on another options exchange

(as provided in Options 5 (Order Protection; Locked and Crossed Markets)), any balance of a do-not-route order that cannot be executed upon entry, or placed on the Exchange's limit order book, will be automatically cancelled.

(n) Add Liquidity Order. An Add Liquidity Order is a limit order that is to be executed in whole or in part on the Exchange (i) only after being displayed on the Exchange's limit order book; and (ii) without routing any portion of the order to another market center. Members may specify whether an Add Liquidity Order shall be cancelled or re-priced to the minimum price variation above the national best bid price (for sell orders) or below the national best offer price (for buy orders) if, at the time of entry, the order (i) is executable on the Exchange; or (ii) the order is not executable on the Exchange, but would lock or cross the national best bid or offer. If at the time of entry, an Add Liquidity Order would lock or cross one or more non-displayed orders on the Exchange, the Add Liquidity Order shall be cancelled or re-priced to the minimum price variation above the best non-displayed bid price (for sell orders) or below the best non-displayed offer price (for buy orders). An Add Liquidity Order will only be re-priced once and will be executed at the re-priced price. An Add Liquidity Order will be ranked in the Exchange's limit order book in accordance with Options 3, Section 10.

(o) Opening Only Order. An Opening Only order is a limit order that can be entered for the opening rotation only. Any portion of the order that is not executed during the opening rotation is cancelled.

(p) Good-Till-Date Order. A Good-Till-Date Order is a limit order to buy or sell which, if not executed, will be cancelled at the sooner of the end of the expiration date assigned to the order, or the expiration of the series.

(q) Reserved.

(r) Good-Till-Canceled Order (GTC Order). An order to buy or sell that remains in force until the order is filled, canceled or the option contract expires; provided, however, that GTC Orders will be canceled in the event of a corporate action that results in an adjustment to the terms of an option contract.

(s) Sweep Order. A Sweep Order is a limit order that is to be executed in whole or in part on the Exchange and the portion not so executed shall be routed pursuant to Supplementary Material .05 to Options 5, Section 2 to Eligible Exchange(s) for immediate execution as soon as the order is received by the Eligible Exchange(s). Any portion not immediately executed by the Eligible Exchange(s) shall be canceled. If a Sweep Order is not marketable when it is submitted to the Exchange, it shall be canceled.

(t) Opening Sweep. An Opening Sweep is a Market Maker order submitted for execution against eligible interest in the System during the Opening Process pursuant to Options 3, Section 8(b)(1).

Supplementary Material to Options 3, Section 7

.01 A "qualified contingent trade" is a transaction consisting of two or more component orders, executed as agent or principal, where:

(a) At least one component is an NMS Stock, as defined in Rule 600 of Regulation NMS under the Exchange Act;

(b) all components are effected with a product or price contingency that either has been agreed to by all the respective counterparties or arranged for by a broker-dealer as principal or agent;

(c) the execution of one component is contingent upon the execution of all other components at or near the same time;

(d) the specific relationship between the component orders (e.g., the spread between the prices of the component orders) is determined by the time the contingent order is placed;

(e) the component orders bear a derivative relationship to one another, represent different classes of shares of the same issuer, or involve the securities of participants in mergers or with intentions to merge that have been announced or cancelled; and

(f) the transaction is fully hedged (without regard to any prior existing position) as a result of other components of the contingent trade.

.02 Cancel and Replace Orders shall mean a single message for the immediate cancellation of a previously received order and the replacement of that order with a new order. If the previously placed order is already filled partially or in its entirety, the replacement order is automatically canceled or reduced by the number of contracts that were executed. The replacement order will retain the priority of the cancelled order, if the order posts to the Order Book, provided the price is not amended, size is not increased, or in the case of Reserve Orders, size is not changed. If the replacement portion of a Cancel and Replace Order does not satisfy the System's price or other reasonability checks (e.g. Options 3, Section 15(b)(1)(A) and Options 3, Section 15(b)(1)(B)) the existing order shall be cancelled and not replaced.

.03 The Exchange offers Members the following protocols for entering orders and quotes respectively:

(a) "**Financial Information eXchange**" or "**FIX**" is an interface that allows Members and their Sponsored Customers to connect, send, and receive messages related to orders and auction orders to the Exchange. Features include the following: (1) execution messages; (2) order messages; (3) risk protection triggers and cancel notifications; and (4) post trade allocation messages.

(b) "**Ouch to Trade Options**" or "**OTTO**" is an interface that allows Members and their Sponsored Customers to connect, send, and receive messages related to orders, auction orders, and auction responses to 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) order messages; (6) risk protection triggers and cancel notifications; (7) auction notifications; (8) auction responses; and (9) post trade allocation messages.

(c) "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 to 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 requests from the Market Maker.

(d) "Nasdaq Precise" or "Precise" is a front-end interface that allows Electronic Access Members and their Sponsored Customers to send orders to the Exchange and perform other related functions. Features include the following: (1) order and execution management: enter, modify, and cancel orders on the Exchange, and manage executions (e.g., parent/child orders, inactive orders, and post-trade allocations); (2) market data: access to real-time market data (e.g., NBBO and Exchange BBO); (3) risk management: set customizable risk parameters (e.g., kill switch); and (4) book keeping and reporting: comprehensive audit trail of orders and trades (e.g., order history and done away trade reports).

Section 8. Opening

(a) Definitions. The Exchange conducts an electronic opening for all option series traded on the Exchange using its System.

(1) The "ABBO" is the Away Best Bid or Offer.

(2) The "market for the underlying security" is either the primary listing market or the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), as determined by the Exchange by underlying and announced to the membership on the Exchange's web site.

(3) The Opening Price is described herein in sections (h) and (j).

(4) The Opening Process is described herein in section (c).

(5) The Potential Opening Price is described herein in section (g).

(6) The Pre-Market BBO is the highest bid and the lowest offer among Valid Width Quotes.

(7) A "Quality Opening Market" is a bid/ask differential applicable to the best bid and offer from all Valid Width Quotes defined in a table to be determined by the Exchange and published on the Exchange's web site. The calculation of Quality Opening Market is based on the best bid and offer of Valid Width Quotes. The differential between the best bid and offer are compared to reach this determination. The allowable differential, as determined by the Exchange, takes into account the type of security (for example, Penny Pilot versus non-Penny Pilot issue), volatility, option premium, and liquidity. The Quality Opening Market differential is intended to ensure the price at which the Exchange opens reflects current market conditions.

(8) A "Valid Width Quote" is a two-sided electronic quotation submitted by a Market Maker that meets the following requirements: differentials shall be no more than \$.25 between the bid and offer for each options contract for which the bid is less than \$2, no more than \$.40 where the bid is at least \$2 but does not exceed \$5, no more than \$.50 where the bid is more than \$5 but does not exceed \$10, no more than \$.80 where the bid is more than \$10 but does not exceed \$20, and no more than \$1 where the bid is \$20 or greater, provided that, in the case of equity options, the bid/ask differentials stated above shall not apply to in-the-money series where the market for the underlying security is wider than the differentials set forth above. The bid/ask differentials for in-the-money options series may be as wide as the quotation for the underlying security on the primary market, or its decimal equivalent rounded down to the nearest minimum increment. The Exchange may establish differences other than the above for one or more series or classes of options.

(9) A "Zero Bid Market" is where the best bid for an options series is zero.

(b) Eligible interest during the Opening Process includes Valid Width Quotes, Opening Sweeps and orders. Quotes, other than Valid Width Quotes, will not be included in the Opening Process. All-or-None Orders that can be satisfied, and the displayed and non-displayed portions of Reserve Orders, are considered for execution and in determining the Opening Price throughout the Opening Process. Only Public Customer interest is routable during the Opening Process.

(1) Opening Sweep.

(i) A Market Maker assigned in a particular option may only submit an Opening Sweep if, at the time of entry of the Opening Sweep, that Market Maker has already submitted and maintains a Valid Width Quote. All Opening Sweeps in the affected series entered by a Market Maker will be cancelled immediately if that Market Maker fails to maintain a continuous quote with a Valid Width Quote in the affected series.

(ii) Opening Sweeps may be entered at any price with a minimum price variation applicable to the affected series, on either side of the market, at single or multiple price level(s), and may be cancelled and re-entered. A single Market Maker may enter multiple Opening Sweeps, with each Opening Sweep at a different price level. If a Market Maker submits multiple Opening Sweeps, the System will

consider only the most recent Opening Sweep at each price level submitted by such Market Maker in determining the Opening Price. Unexecuted Opening Sweeps will be cancelled once the affected series is open.

(2) The System will aggregate the size of all eligible interest for a particular participant category at a particular price level for trade allocation purposes pursuant to Options 3, Section 10.

(c) Market Maker Valid Width Quotes and Opening Sweeps received starting at 9:25 AM Eastern Time are included in the Opening Process. Orders entered at any time before an option series opens are included in the Opening Process.

(1) The Opening Process for an option series will be conducted pursuant to paragraphs (f) - (j) below on or after 9:30 AM Eastern Time if: the ABBO, if any, is not crossed; and the System has received, within two minutes (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) of the opening trade or quote on the market for the underlying security in the case of equity options or, in the case of index options, within two minutes of the receipt of the opening price in the underlying index (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site), or within two minutes of market opening for the underlying security in the case of U.S. dollar-settled foreign currency options (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) any of the following:

(i) the Primary Market Maker's ("PMM") Valid Width Quote;

(ii) the Valid Width Quotes of at least two Competitive Market Makers ("CMM");
or

(iii) if neither the PMM's Valid Width Quote nor the Valid Width Quotes of two CMMs have been submitted within such timeframe, one CMM has submitted a Valid Width Quote.

(2) For all options, the underlying security, including indexes, must be open on the primary market for a certain time period as determined by the Exchange for the Opening Process to commence. The time period shall be no less than 100 milliseconds and no more than 5 seconds.

(3) The PMM assigned in a particular equity or index option must enter a Valid Width Quote, in 90% of their assigned series, not later than one minute following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the opening price in the underlying index. The PMM assigned in a particular U.S. dollar-settled foreign currency option must enter a Valid Width Quote, in 90% of their assigned series, not later than one minute after the announced market opening. Provided an options series has not opened pursuant to Options 3, Section 8(c)(1)(ii) or (iii), PMMs must promptly enter a Valid Width Quote in

the remainder of their assigned series, which did not open within one minute following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the opening price in the underlying index or, with respect to U.S. dollar-settled foreign currency options, following the announced market opening. Once an options series has opened pursuant to Options 3, Section 8(c)(1)(i) - (iii), a PMM must submit intra-day, two-sided quotes in such options series pursuant to Options 2, Section 5(e)(2).

(4) A CMM that submits a quote pursuant to this Rule in any option series when the PMM's quote has not been submitted shall be required, once an options series has opened, to submit intra-day, two-sided quotes in such option series pursuant to Options 2, Section 5(e)(1).

(5) The Opening Process will stop and an option series will not open if the ABBO becomes crossed or when a Valid Width Quote(s) pursuant to Options 3, Section 8(c)(1) is no longer present. Once each of these conditions no longer exist, the Opening Process in the affected option series will start again pursuant to paragraphs (e) - (j) below.

(d) Reopening After a Trading Halt. The procedure described in Options 3, Section 8 will be used to reopen an option series after a trading halt. If there is a trading halt or pause in the underlying security, the Opening Process will start again irrespective of the specific times listed in paragraph (c)(1).

(e) Opening with a BBO (No Trade). If there are no opening quotes or orders that lock or cross each other and no routable orders locking or crossing the ABBO, the System will open with an opening quote by disseminating the Exchange's best bid and offer among quotes and orders ("BBO") that exist in the System at that time, unless all three of the following conditions exist: (i) a Zero Bid Market; (ii) no ABBO; and (iii) no Quality Opening Market. If all three conditions exist, the Exchange will calculate an Opening Quote Range pursuant to paragraph (i) and conduct the Price Discovery Mechanism pursuant to paragraph (j) below.

(f) Pre-Market BBO Calculation. If there are opening Valid Width Quotes, or orders, that lock or cross each other, the System will calculate the Pre-Market BBO.

(g) Potential Opening Price. To calculate the Potential Opening Price, the System will take into consideration all Valid Width Quotes and orders (including Opening Sweeps and displayed and non-displayed portions of Reserve Orders), except All-or-None Orders that cannot be satisfied, for the option series and identify the price at which the maximum number of contracts can trade ("maximum quantity criterion"). In addition, paragraphs (h)(3)(i) and (i)(5) - (7) below contain additional provisions related to Potential Opening Price.

(1) More Than One Potential Opening Price. When two or more Potential Opening Prices would satisfy the maximum quantity criterion and leave no contracts unexecuted, the System takes the highest and lowest of those prices and takes the mid-point; if such mid-point is not expressed as a permitted minimum price variation, it will be rounded to the minimum price variation that is closest to the closing price for the affected series from

the immediately prior trading session. If there is no closing price from the immediately prior trading session, the System will round up to the minimum price variation to determine the Opening Price.

(2) If two or more Potential Opening Prices for the affected series would satisfy the maximum quantity criterion and leave contracts unexecuted, the Opening Price will be either the lowest executable bid or highest executable offer of the largest sized side.

(3) The Potential Opening Price calculation is bounded by the better away market price that may not be satisfied with the Exchange routable interest.

(h) Opening with Trade. The Exchange will open the option series for trading with a trade on Exchange interest only at the Opening Price, if any of these conditions occur:

(1) the Potential Opening Price is at or within the best of the Pre-Market BBO and the ABBO;

(2) the Potential Opening Price is at or within the non-zero bid ABBO if the Pre-Market BBO is crossed; or

(3) where there is no ABBO, the Potential Opening Price is at or within the Pre-Market BBO which is also a Quality Opening Market.

(i) If there is more than one Potential Opening Price which meets the conditions set forth in paragraphs (1) through (3) above where:

(A) no contracts would be left unexecuted and

(B) any value used for the mid-point calculation (which is described in paragraph (g) above) would cross either:

(I) the Pre-Market BBO, or

(II) the ABBO,

then, for the purposes of calculating the midpoint the Exchange will use the better of the Pre-Market BBO or ABBO as a boundary price and will open the option series for trading with an execution at the resulting Potential Opening Price. If these conditions are not met, an Opening Quote Range will be calculated pursuant to paragraph (i) below and thereafter, the Price Discovery Mechanism in paragraph (j) below will commence.

(i) The System will calculate an Opening Quote Range ("OQR") for a particular option series that will be utilized in the Price Discovery Mechanism described below, if the Exchange has not opened subject to any of the provisions above.

(1) Except as provided in paragraphs (3) and (4) below, to determine the minimum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest quote bid among Valid Width Quotes on the Exchange and on the away market(s), if any.

(2) Except as provided in paragraphs (3) and (4) below, to determine the maximum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest quote offer among Valid Width Quotes on the Exchange and on the away market(s), if any.

(3) If one or more away markets are disseminating a BBO that is not crossed, (the Opening Process will stop and an option series will not open if the ABBO becomes crossed pursuant to (c)(5)) and there are Valid Width Quotes on the Exchange that are executable against each other or the ABBO:

(i) The minimum value for the OQR will be the highest away bid.

(ii) The maximum value for the OQR will be the lowest away offer.

(4) If there are Valid Width Quotes on the Exchange that are executable against each other, and there is no away market disseminating a BBO in the affected option series:

(i) The minimum value for the OQR will be the lowest quote bid among Valid Width Quotes on the Exchange.

(ii) The maximum value for the OQR will be the highest quote offer among Valid Width Quotes on the Exchange.

(5) If there is more than one Potential Opening Price possible where no contracts would be left unexecuted, any price used for the mid-point calculation (which is described in paragraph (g)(1) above) that is wider than the OQR will be restricted to the OQR price on that side of the market for the purposes of the mid-point calculation.

(6) If there is more than one Potential Opening Price possible where no contracts would be left unexecuted, pursuant to paragraph (g)(3) above when contracts will be routed, the System will use the away market price as the Potential Opening Price.

(7) If the Exchange determines that non-routable interest can execute the maximum number of contracts against Exchange interest, after routable interest has been determined by the System to satisfy the away market, then the Potential Opening Price is the price at which the maximum number of contracts can execute, excluding the interest which will be routed to an away market, which may be executed on the Exchange as described in paragraph (g) above. The System will route Public Customer interest in price/time priority to satisfy the away market.

(j) Price Discovery Mechanism. If the Exchange has not opened pursuant to paragraphs (e) or (h) above, after the OQR calculation in paragraph (i), the Exchange will conduct the following Price Discovery Mechanism.

(1) First, the System will broadcast an Imbalance Message for the affected series (which includes the symbol, side of the imbalance (unmatched contracts), size of matched contracts, size of the imbalance, and Potential Opening Price bounded by the Pre-Market BBO) to participants, and begin an "Imbalance Timer," not to exceed three seconds. The Imbalance Timer will be for the same number of seconds for all options traded on the Exchange. Each Imbalance Message is subject to an Imbalance Timer.

(2) Any new interest received by the System will update the Potential Opening Price. If during or at the end of the Imbalance Timer, the Opening Price is at or within the OQR, the Imbalance Timer will end and the System will open with a trade at the Opening Price if the executions consist of Exchange interest only without trading through the ABBO and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price. If no new interest comes in during the Imbalance Timer and the Potential Opening Price is at or within OQR and does not trade through the ABBO, the Exchange will open with a trade at the end of the Imbalance Timer at the Potential Opening Price.

(3) Next, provided the option series has not opened pursuant to paragraph (j)(2) above, the System will:

(i) send a second Imbalance Message with a Potential Opening Price that is bounded by the OQR (and would not trade through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price) and includes away market volume in the size of the imbalance to participants; and concurrently

(ii) initiate a Route Timer, not to exceed one second. The Route Timer operates as a pause before an order is routed to an away market. If during the Route Timer, interest is received by the System which would allow the Opening Price to be within OQR without trading through away markets and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price, the System will open with trades at the Opening Price and the Route Timer will simultaneously end. The System will monitor quotes received during the Route Timer period and make ongoing corresponding changes to the permitted OQR and Potential Opening Price to reflect them.

(iii) If no trade occurred pursuant to (ii) above, when the Route Timer expires, if the Potential Opening Price is within OQR (and would not trade through the limit price(s) of interest within OQR that is unable to be fully executed at the Opening Price), the System will determine if the total number of contracts displayed at better prices than the Exchange's Potential Opening Price on away markets ("better priced away contracts") would satisfy the number of marketable contracts

available on the Exchange. The Exchange will open the option series by routing and/or trading on the Exchange, pursuant to paragraphs (A)-(C) below.

(A) If the total number of better priced away contracts would satisfy the number of marketable contracts available on the Exchange on either the buy or sell side, the System will route all marketable contracts on the Exchange to such better priced away markets as an ISO designated as an Immediate-or-Cancel ("IOC") order(s), and determine an opening BBO that reflects the interest remaining on the Exchange. The System will price any contracts routed to away markets at the Exchange's Opening Price; or

(B) If the total number of better priced away contracts would not satisfy the number of marketable contracts the Exchange has, the System will determine how many contracts it has available at the Exchange Opening Price. If the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price would satisfy the number of marketable contracts on the Exchange on either the buy or sell side, the System will contemporaneously route, based on price/time priority of routable interest, a number of contracts that will satisfy interest at away markets at prices better than the Opening Price and trade available contracts on the Exchange at the Exchange Opening Price. The System will price any contracts routed to away markets at the better of the Exchange Opening Price or the order's limit price pursuant to this subparagraph; or

(C) If the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price plus the contracts available at away markets at the Exchange Opening Price would satisfy the number of marketable contracts the Exchange has on either the buy or sell side, the System will contemporaneously route, based on price/time priority of routable interest, a number of contracts that will satisfy interest at away markets at prices better than the Exchange Opening Price (pricing any contracts routed to away markets at the better of the Exchange Opening Price or the order's limit price), trade available contracts on the Exchange at the Exchange Opening Price, and route a number of contracts that will satisfy interest at away markets at prices equal to the Exchange Opening Price.

(4) The System may send up to two additional Imbalance Messages (which may occur while the Route Timer is operating) bounded by OQR and reflecting away market interest in the volume. After the Route Timer has expired, the processes in paragraph (3) will repeat (except no new Route Timer will be initiated).

(5) Forced Opening. After all additional Imbalance Messages have occurred pursuant to paragraph (4) above, the System will open the series by executing as many contracts as possible by routing to away markets at prices better than the Exchange Opening Price for

their disseminated size, trading available contracts on the Exchange at the Exchange Opening Price bounded by OQR (without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price), and routing contracts to away markets at prices equal to the Exchange Opening Price at their disseminated size. In this situation, the System will price any contracts routed to away markets at the better of the Exchange Opening Price or the order's limit price. Any unexecuted contracts from the imbalance not traded or routed will be cancelled back to the entering participant if they remain unexecuted and priced through the Opening Price, otherwise orders will remain in the Order Book.

(6) The System will execute orders at the Opening Price that have contingencies (such as, without limitation, All-or-None and Reserve Orders) and non-routable orders, such as a "Do-Not-Route" or "DNR" Orders, to the extent possible. The System will only route non-contingency Public Customer orders, except that only the full volume of Public Customer Reserve Orders may route.

(i) The System will cancel (1) any portion of a Do-Not-Route order that would otherwise have to be routed to the exchange(s) disseminating the ABBO for an opening to occur, or (2) any order that is priced through the Opening Price will be cancelled. All other interest will be eligible for trading after opening.

(k) During the opening of the option series, where there is an execution possible, the System will give priority to Market Orders first, then to resting Limit Orders and quotes. The allocation provisions of Options 3, Section 10 and the Supplementary Material thereto apply with respect to other orders and quotes with the same price.

(l) Upon opening of the option series, regardless of an execution, the System disseminates the price and size of the Exchange's best bid and offer (BBO).

Section 9. Trading Halts

(a) Halts. An Exchange official designated by the Board may halt trading in any stock option in the interests of a fair and orderly market.

(1) The following are among the factors that may be considered in determining whether the trading in a stock option should be halted:

(i) trading in the underlying security has been halted or suspended in one or more of the markets trading the underlying security.

(ii) the opening of such underlying security has been delayed because of unusual circumstances.

(iii) other unusual conditions or circumstances are present.

(2) A designated Exchange official may halt trading (including a rotation) for a class or classes of options contracts whenever there is a halt of trading in an underlying security

in one or more of the markets trading the underlying security. In such event, without the need for action by the Primary Market Maker, all trading in the effected class or classes of options may be halted. The Exchange shall disseminate through its trading facilities and over OPRA a symbol in respect of such class or classes of options indicating that trading has been halted, and a record of the time and duration of the halt shall be made available to vendors. No Member or person associated with a Member shall effect a trade on the Exchange in any options class in which trading has been halted under the provisions of this Rule during the time in which the halt remains in effect. During a halt, the Exchange will maintain existing orders on the book (but not existing quotes prior to the halt), accept orders and quotes, and process cancels and modifications, except existing quotes are cancelled.

(b) Resumptions. Trading in a stock option that has been the subject of a halt under paragraph (a)(1) above may be resumed upon the determination by an Exchange official designated by the Board that the conditions which led to the halt are no longer present or that the interests of a fair and orderly market are best served by a resumption of trading.

(c) Trading Pauses. Trading on the Exchange in any option contract shall be halted whenever trading in the underlying security has been paused by the primary listing market. Trading in such options contracts may be resumed upon a determination by the Exchange that the conditions that led to the pause are no longer present and that the interests of a fair and orderly market are best served by a resumption of trading, which in no circumstances will be before the Exchange has received notification that the underlying security has resumed trading on at least one exchange.

(d) This paragraph shall be in effect during a pilot period that expires at the close of business on October 18, 2019. Capitalized terms used in this paragraph (d) shall have the same meaning as provided for in the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS, as it may be amended from time to time ("LULD Plan"). During a Limit State and Straddle State in the Underlying NMS stock:

(1) The Exchange will not open an affected option.

(2) Provided the Exchange has opened an affected option for trading, the Exchange shall reject Market Orders, as defined in Options 3, Section 7(a), and shall notify Members of the reason for such rejection. Market Orders exposed at the NBBO pursuant to Supplementary Material .02 to Options 5, Section 2, pending in the System, will continue to be processed. If at the end of the exposure period the affected underlying is in a Limit or Straddle State, the Market Order will be cancelled. If the affected underlying is no longer in a Limit or Straddle State after the exposure period, the Market Order will be processed with normal handling.

(3) Provided the Exchange has opened an affected option for trading, the Exchange shall elect Stop Orders if the condition as provided in Options 3, Section 7(d) is met, and, because they become Market Orders, shall cancel them back and notify Members of the reason for such rejection.

(4) When the security underlying an option class is in a Limit State or Straddle State, the maximum quotation spread requirements for Market Maker quotes contained in Options 2, Section 4(b)(4) and the intra-day quotation requirements contained in Options 2, Section 5(e) shall be suspended. The time periods associated with Limit States and Straddle States will not be considered by the Exchange when evaluating whether a Market Maker complied with the intra-day quotation requirements contained in Options 2, Section 5(e).

(e) Trading Halts Due To Extraordinary Market Volatility

The Exchange shall halt trading in all securities whenever a market-wide trading halt (commonly known as a circuit breaker) is initiated on the New York Stock Exchange in response to extraordinary market conditions.

Supplementary Material to Options 3, Section 9

.01 The Exchange shall nullify any transaction that occurs:

(a) during a trading halt in the affected option on the Exchange; or

(b) with respect to equity options (including options overlying ETFs), during a regulatory halt as declared by the primary listing market for the underlying security.

Section 10. Priority of Quotes and Orders

(a) Definitions. As provided in Options 1, Section 1(a)(5) and (a)(25), a "bid" is a quotation or limit order to buy options contracts and an "offer" is a quotation or limit order to sell options contracts. "Quotations," which are defined in Options 1, Section 1(a)(44), may only be entered on the Exchange by Market Makers in the options classes to which they are appointed under Options 2, Section 3. Limit orders may be entered by Market Makers in certain circumstances as provided in the Rules and by Electronic Access Members (either as agent or as principal). "Priority Customer Orders" and "Professional Orders" are defined in Options 1, Section 1(a)(36) and (37).

(b) Priority on the Exchange. The highest bid and lowest offer shall have priority on the Exchange. In the case where the bid price for any options contract is \$0.00, a market order to sell that series shall be considered a limit order to sell at a price equal to the minimum trading increment as defined in Options 3, Section 3.

(c) Priority. Except as provided under Options 3, Section 7(g), Priority Customer Orders on the Exchange shall have priority over Professional Orders and Market Maker quotes at the same price in the same options series.

(d) Precedence of Priority Customer Orders. Except as provided under Options 3, Section 7(g), if there are two (2) or more Priority Customer Orders for the same options series at the same price on the Exchange, priority shall be afforded to such Priority Customer Orders in the sequences in which they are received by the Exchange (i.e., in time priority).

(e) Precedence of Professional Orders and Market Maker Quotes. Except as provided under Options 3, Section 7(g), if there are two (2) or more Professional Orders or Market Maker quotes at the Exchange's best bid or offer, after all Priority Customer Orders (if any) at that price have been filled, executions at that price will be allocated between the Professional Orders and Market Maker quotes pursuant to an allocation procedure to be determined by the Exchange from time to time; provided, however, that if the Primary Market Maker is quoting at the Exchange's best bid or offer, it shall have precedence over Professional Orders and Competitive Market Maker quotes for execution of orders that are for a specified number of contracts or fewer, which number shall be determined by the Exchange from time to time.

Supplementary Material to Options 3, Section 10

.01 Options 3, Section 10(e) (Priority of Quotes and Orders) states that Priority Customer Orders have priority on the Exchange. That Rule further provides that the Exchange will determine a procedure for allocating executions among Professional Orders and quotes in cases where all Priority Customer Orders have been executed and there are two or more Professional Orders or Market Maker quotes at the best price. This procedure is as follows:

(a) Subject to the two limitations in paragraphs (b) and (c) below and subject to paragraph .03 (Preferred Orders), Professional Orders and Market Maker quotes at the best price receive allocations based upon the percentage of the total number of contracts available at the best price that is represented by the size of the Professional Order or quote;

(b) If the Primary Market Maker is quoting at the best price, it has participation rights equal to the greater of (i) the proportion of the total size at the best price represented by the size of its quote, or (ii) sixty percent (60%) of the contracts to be allocated if there is only one (1) other Professional Order or Market Maker quotation at the best price, forty percent (40%) if there are two (2) other Professional Orders and/or Market Maker quotes at the best price, and thirty percent (30%) if there are more than two (2) other Professional Orders and/or Market Maker quotes at the best price; and

(c) Orders for five (5) contracts or fewer will be executed first by the Primary Market Maker; provided however, that on a quarterly basis the Exchange will evaluate what percentage of the volume executed on the Exchange (excluding volume resulting from the execution of orders in the Facilitation Mechanism (see Options 3, Section 11(d))) is comprised of orders for five (5) contracts or fewer executed by Primary Market Makers, and will reduce the size of the orders included in this provision if such percentage is over forty percent (40%).

This procedure only applies to the allocation of executions among Professional Orders and Market Maker quotes existing in the Exchange's central order book at the time the order is received by the Exchange. No market participant is allocated any portion of an execution unless it has an existing interest at the execution price. Moreover, no market participant can execute a greater number of contracts than is associated with the price of its existing interest. Accordingly, the Primary Market Maker participation rights and the

small order preference contained in this allocation procedure are not guarantees; the Primary Market Maker (i) must be quoting at the execution price to receive an allocation of any size, and (ii) cannot execute a greater number of contracts than the size that is associated with its quote.

.02 Reserved.

.03 Preferred Orders. An Electronic Access Member may designate a "Preferred Market Maker" on orders it enters into the System ("Preferred Orders").

(a) A Preferred Market Maker may be the Primary Market Maker appointed to the options class or any Competitive Market Maker appointed to the options class.

(b) If the Preferred Market Maker is not quoting at a price equal to the NBBO at the time the Preferred Order is received, the allocation procedure contained in paragraph .01 shall be applied to the execution of the Preferred Order.

(c) If the Preferred Market Maker is quoting at the NBBO at the time the Preferred Order is received, the allocation procedure contained in paragraph .01 shall be applied to the execution of the Preferred Order except that the Primary Market Maker will not receive the participation rights described in paragraphs .01(b) and (c), and instead the Preferred Market Maker shall have participation rights equal to the greater of:

(i) the proportion of the total size at the best price represented by the size of its quote,

(ii) sixty percent (60%) of the contracts to be allocated if there is only one (1) other Professional Order or Market Maker quotation at the best price and forty percent (40%) if there are two (2) or more other Professional Orders and/or Market Maker quotes at the best price, or

(iii) the full size of a Preferred Order for five (5) contracts or fewer if the Primary Market Maker appointed to the options class is designated as the Preferred Market Maker.

(d) Preferred Competitive Market Makers are subject to enhanced quoting requirements as provided in Options 2, Section 5(e)(3).

.04 Notification of Public Customer Interest on the Book. The Exchange shall make available to Members the quantity of Public Customer contracts included in the Exchange's highest bid and lowest offer.

Section 11. Auction Mechanisms

For purposes of this Rule, a "broadcast message" means an electronic message that is sent by the Exchange to all Members, and a "Response" means an electronic message that is sent by Members in response to a broadcast message. Also for purposes of this Rule, the time given to

Members to enter Responses for any of the below auction mechanisms shall be designated by the Exchange via an Options Trader Alert, but no less than 100 milliseconds and no more than 1 second.

(a) **Block Order Mechanism.** The Block Order Mechanism is a process by which a Member can obtain liquidity for the execution of block-size orders. Block-size orders are orders for fifty (50) contracts or more.

(1) Upon the entry of an order into the Block Order Mechanism, a broadcast message will be sent that includes the series, and may include price, size and/or side, as specified by the Member entering the order, and Members will be given an opportunity to enter Responses with the prices and sizes at which they would be willing to trade with a block-size order.

(2) At the conclusion of the time given Members to enter Responses, either an execution will occur automatically, or the order will be cancelled.

(i) Responses, orders, and quotes will be executed at a single block execution price that is the price for the block-size order at which the maximum number of contracts can be executed consistent with the Member's instruction. Bids (offers) on the Exchange at the time the block order is executed that are priced higher (lower) than the block execution price, as well as Responses that are priced higher (lower) than the block execution price, will be executed in full at the block execution price.

(ii) At the block execution price, Priority Customer Orders and Priority Customer Responses will be executed first and in time priority, and then quotes, Professional Orders, and Professional Responses will participate in the execution of the block-size order based upon the percentage of the total number of contracts available at the block execution price that is represented by the size of the quote, Professional Order, or Professional Response.

(3) If a trading halt is initiated after an order is entered into the Block Order Mechanism, such auction will be automatically terminated without execution.

(b) **Facilitation Mechanism.** The Facilitation Mechanism is a process by which an Electronic Access Member can execute a transaction wherein the Electronic Access Member seeks to facilitate a block-size order it represents as agent, and/or a transaction wherein the Electronic Access Member solicited interest to execute against a block-size order it represents as agent. Electronic Access Members must be willing to execute the entire size of orders entered into the Facilitation Mechanism.

(1) Upon the entry of an order into the Facilitation Mechanism, a broadcast message that includes the series, price and size of the Agency Order, and whether it is to buy or sell, will be sent and Members will be given an opportunity to enter Responses with the prices and sizes at which they want to participate in the facilitation of the order.

(2) Responses may be priced at the price of the order to be facilitated or at a better price and must not exceed the size of the order to be facilitated.

(3) At the end of the period given for the entry of Responses, the facilitation order will be automatically executed.

(i) Unless there is sufficient size to execute the entire facilitation order at a better price, Priority Customer bids (offers) at the time the facilitation order is executed that are priced higher (lower) than the facilitation price will be executed at the facilitation price. Professional Orders and Market Maker quotes at the time the facilitation order is executed that are priced higher (lower) than the facilitation price will be executed at their stated price, thereby providing the order being facilitated a better price for the number of contracts associated with such higher bids (lower offers). The facilitation order will be cancelled at the end of the exposure period if an execution would take place at a price that is inferior to the best bid (offer) on Nasdaq GEMX.

(ii) The facilitating Electronic Access Member will execute at least forty percent (40%) of the original size of the facilitation order, but only after better-priced Responses, orders and quotes, as well as Priority Customer Orders at the facilitation price, are executed in full. Thereafter, Responses quotes and Professional Orders at the facilitation price will participate in the execution of the facilitation order based upon the percentage of the total number of contracts available at the facilitation price that is represented by the size of the Response, Professional Order or quote.

(iii) Upon entry of an order into the Facilitation Mechanism, the facilitating Electronic Access Member can elect to automatically match the price and size of orders, quotes and responses received during the exposure period up to a specified limit price or without specifying a limit price. In this case, the facilitating Electronic Access Member will be allocated its full size at each price point, or at each price point within its limit price if a limit is specified, until a price point is reached where the balance of the order can be fully executed. At such price point, the facilitating Member shall be allocated at least forty percent (40%) of the original size of the facilitation order, but only after Priority Customer interest at such price point. Thereafter, all other orders, Responses, and quotes at the price point will participate in the execution of the facilitation order based upon the percentage of the total number of contracts available at the facilitation price that is represented by the size of the order, Response or quote. An election to automatically match better prices cannot be cancelled or altered during the exposure period.

(iv) If a trading halt is initiated after an order is entered into the Facilitation Mechanism, such auction will be automatically terminated without execution.

(c) Reserved.

(d) Solicited Order Mechanism. The Solicited Order Mechanism is a process by which an Electronic Access Member can attempt to execute orders of 500 or more contracts it represents as agent (the "Agency Order") against contra orders that it solicited. Each order entered into the Solicited Order Mechanism shall be designated as all-or-none.

(1) Upon entry of both orders into the Solicited Order Mechanism at a proposed execution price, a broadcast message that includes the series, price and size of the Agency Order, and whether it is to buy or sell, will be sent and Members will be given an opportunity to enter Responses with the prices and sizes at which they would be willing to participate in the execution of the Agency Order.

(2) At the end of the period given Members to enter Responses, the Agency Order will be automatically executed in full or cancelled.

(i) If at the time of execution there is insufficient size to execute the entire Agency Order at an improved price (or prices), the Agency Order will be executed against the solicited order at the proposed execution price so long as, at the time of execution: (A) the execution price is equal to or better than the best bid or offer on the Exchange, and (B) there are no Priority Customer Orders on the Exchange that are priced equal to the proposed execution price. If there are Priority Customer Orders on the Exchange on the opposite side of the Agency Order at the proposed execution price and there is sufficient size to execute the entire size of the Agency Order, the Agency Order will be executed against the bid or offer, and the solicited order will be cancelled. The aggregate size of all orders, quotes and Responses at the bid or offer will be used to determine whether the entire Agency Order can be executed. Both the solicited order and Agency Order will be cancelled if an execution would take place at a price that is inferior to the best bid or offer on the Exchange, or if there is a Priority Customer on the book at the proposed execution price but there is insufficient size on the Exchange to execute the entire Agency Order.

(ii) If at the time of execution there is sufficient size to execute the entire Agency Order at an improved price (or prices), the Agency Order will be executed at the improved price(s), subject to the condition in (i)(A), and the solicited order will be cancelled. The aggregate size of all orders, quotes and Responses at each price will be used to determine whether the entire agency order can be executed at an improved price (or prices).

(iii) When executing the Agency Order against the bid or offer in accordance with paragraph (i) above, or at an improved price in accordance with paragraph (ii) above, Priority Customer Orders will be executed first. Professional Orders and Market Maker quotes participate in the execution of the Agency Order based upon the percentage of the total number of contracts available at the best price that is represented by the size of the Professional Order or Market Maker quote.

(iv) If a trading halt is initiated after an order is entered into the Solicited Order Mechanism, such auction will be automatically terminated without execution.

(3) Prior to entering Agency Orders into the Solicited Order Mechanism on behalf of a customer, EAMs must deliver to the customer a written notification informing the customer that its order may be executed using the Exchange's Solicited Order Mechanism. Such written notification must disclose the terms and conditions contained in this Rule and must be in a form approved by the Exchange.

Supplementary Material to Options 3, Section 11

.01 It will be a violation of a Member's duty of best execution to its customer if it were to cancel a facilitation order to avoid execution of the order at a better price. The availability of the Facilitation Mechanism does not alter a Member's best execution duty to get the best price for its customer. Accordingly, while facilitation orders can be canceled during the time period given for the entry of Responses, if a Member were to cancel a facilitation order when there was a superior price available on the Exchange and subsequently re-enter the facilitation order at the same facilitation price after the better price was no longer available without attempting to obtain that better price for its customer, there would be a presumption that the Member did so to avoid execution of its customer order in whole or in part by other brokers at the better price.

.02 Responses represent non-firm interest that can be canceled at any time prior to execution. Responses are not displayed to any market participants.

.03 Under paragraph (d) above, Members may enter contra orders that are solicited. The Solicited Order Mechanism provides a facility for Members that locate liquidity for their customer orders. Members may not use the Solicited Order Mechanism to circumvent Exchange Options 3, Section 22(d) limiting principal transactions. This may include, but is not limited to, Members entering contra orders that are solicited from (1) affiliated broker-dealers, or (2) broker-dealers with which the Member has an arrangement that allows the Member to realize similar economic benefits from the solicited transaction as it would achieve by executing the customer order in whole or in part as principal. Additionally, any solicited contra orders entered by Members to trade against Agency Orders may not be for the account of an Exchange Market Maker that is assigned to the options class.

.04 Split Prices. Orders and Responses may be entered into the Facilitation and Solicitation Mechanisms and receive executions at the mid-price between the standard minimum trading increments for the options series ("Split Prices"). This means that orders and Responses for options with a minimum increment of 5 cents may be entered into the Facilitation and Solicitation Mechanisms and receive executions in 2.5 cent increments (e.g., \$1.025, \$1.05, \$1.075, etc.), and that orders and Responses for options with a minimum increment of 10 cents may be entered into the Facilitation and Solicitation Mechanism and receive executions at 5 cent increments (e.g., \$4.05, \$4.10, \$4.15, etc.). Orders and quotes in the market that receive the benefit of the facilitation price under paragraph (b) may also receive executions at Split Prices.

.05 Penny Prices. Orders and Responses may be entered into the Block Mechanism and receive executions at penny increments. Orders and quotes in the market that receive the benefit of the block execution price under paragraph (a)(2)(i) may also receive executions at penny increments.

Section 12. Crossing Orders

(a) Customer Cross Orders. Customer Cross Orders are automatically executed upon entry provided that the execution is at or between the best bid and offer on the Exchange and (i) is not at the same price as a Priority Customer Order on the Exchange's limit order book and (ii) will not trade through the NBBO.

(1) Customer Cross Orders will be automatically canceled if they cannot be executed.

(2) Customer Cross Orders may only be entered in the regular trading increments applicable to the options class under Options 3, Section 3.

(3) Supplementary Material .01 to Options 3, Section 22 applies to the entry and execution of Customer Cross Orders.

(b) Reserved.

(c) Qualified Contingent Cross Orders. Qualified Contingent Cross Orders are automatically executed upon entry provided that the execution (i) is not at the same price as a Priority Customer Order on the Exchange's limit order book and (ii) is at or between the NBBO.

(1) Qualified Contingent Cross Orders will be automatically canceled if they cannot be executed.

(2) Qualified Contingent Cross Orders may only be entered in the regular trading increments applicable to the options class under in Options 3, Section 3.

Section 13. Price Improvement Mechanism for Crossing Transactions

(a) The Price Improvement Mechanism is a process by which an Electronic Access Member can provide price improvement opportunities for a transaction wherein the Electronic Access Member seeks to facilitate an order it represents as agent, and/or a transaction wherein the Electronic Access Member solicited interest to execute against an order it represents as agent (a "Crossing Transaction").

(b) Crossing Transaction Entry. A Crossing Transaction is comprised of the order the Electronic Access Member represents as agent (the "Agency Order") and a counter-side order for the full size of the Agency Order (the "Counter-Side Order"). The Counter-Side Order may represent interest for the Member's own account, or interest the Member has solicited from one or more other parties, or a combination of both.

(1) If the Agency Order is for less than 50 option contracts, and if the difference between the National Best Bid and National Best Offer ("NBBO") is \$0.01, the Crossing Transaction must be entered at one minimum price improvement increment better than the NBBO on the

opposite side of the market from the Agency Order and better than the limit order or quote on the Nasdaq GEMX order book on the same side of the Agency Order.

(2) If the Agency Order is for 50 option contracts or more, or if the difference between the NBBO is greater than \$0.01, a Crossing Transaction must be entered only at a price that is equal to or better than the national best bid or offer ("NBBO") and better than the limit order or quote on the Nasdaq GEMX order book on the same side of the Agency Order.

(3) The Crossing Transaction may be priced in one-cent increments.

(4) The Crossing Transaction may not be canceled, but the price of the Counter-Side Order may be improved during the exposure period.

(c) Exposure Period. Upon entry of a Crossing Transaction into the Price Improvement Mechanism, a broadcast message that includes the series, price and size of the Agency Order, and whether it is to buy or sell, will be sent to all Members. This broadcast message will not be included in the Exchange's disseminated best bid or offer and will not be disseminated through OPRA.

(1) The Exchange will designate via an Options Trader Alert a time of no less than 100 milliseconds and no more than 1 second for Members to indicate the size and price at which they want to participate in the execution of the Agency Order ("Improvement Orders").

(2) Improvement Orders may be entered by all Members in one-cent increments at the same price as the Crossing Transaction or at an improved price for the Agency Order, and for any size up to the size of the Agency Order.

(3) During the exposure period, Improvement Orders may not be canceled, but may be modified to (1) increase the size at the same price, or (2) improve the price of the Improvement Order for any size up to the size of the Agency Order.

(4) During the exposure period, responses (including the Counter-Side Order, Improvement Orders, and any changes to either) submitted by Members shall not be visible to other auction participants.

(5) The exposure period will automatically terminate (i) at the end of the time period designated by the Exchange pursuant to Options 3, Section 13(c)(1) above, (ii) upon the receipt of a market or marketable limit order on the Exchange in the same series, or (iii) upon the receipt of a non-marketable limit order in the same series on the same side of the market as the Agency Order that would cause the price of the Crossing Transaction to be outside of the best bid or offer on the Exchange.

(d) Execution. At the end of the exposure period the Agency Order will be executed in full at the best prices available, taking into consideration orders and quotes in the Exchange market,

Improvement Orders, and the Counter-Side Order. The Agency Order will receive executions at multiple price levels if there is insufficient size to execute the entire order at the best price.

(1) At a given price, "Priority Customer Interest" (Priority Customer Orders and Improvement Orders from Priority Customers) is executed in full before "Professional Interest" (Professional Orders, Improvement Orders from non- Priority Customers and Market Maker quotes).

(2) After Priority Customer Interest at a given price, Professional Interest will participate in the execution of the Agency Order based upon the percentage of the total number of contracts available at the price that is represented by the size of such interest.

(3) In the case where the Counter-Side Order is at the same price as Professional Interest in (d)(2), the Counter-Side order will be allocated the greater of one (1) contract or forty percent (40%) of the initial size of the Agency Order before Professional Interest is executed. Upon entry of Counter-Side orders, Members can elect to automatically match the price and size of orders, quotes and responses received during the exposure period up to a specified limit price or without specifying a limit price. In this case, the Counter-Side order will be allocated its full size at each price point, or at each price point within its limit price if a limit is specified, until a price point is reached where the balance of the order can be fully executed. At such price point, the Counter-Side order shall be allocated the greater of one contract or forty percent (40%) of the original size of the Agency Order, but only after Priority Customer Interest at such price point are executed in full. Thereafter, all Professional Interest at the price point will participate in the execution of the Agency Order based upon the percentage of the total number of contracts available at the price that is represented by the size of the Professional Interest. An election to automatically match better prices cannot be cancelled or altered during the exposure period.

(4) When a market order or marketable limit order on the opposite side of the market from the Agency Order ends the exposure period, it will participate in the execution of the Agency Order at the price that is mid-way between the best counter-side interest and the NBBO, so that both the market or marketable limit order and the Agency Order receive price improvement. Transactions will be rounded, when necessary, to the \$.01 increment that favors the Agency Order.

(5) If a trading halt is initiated after an order is entered into the Price Improvement Mechanism, such auction will be automatically terminated without execution.

Supplementary Material to Options 3, Section 13

.01 It shall be considered conduct inconsistent with just and equitable principles of trade for any Member to enter orders, quotes, Agency Orders, Counter-Side Orders or Improvement Orders for the purpose of disrupting or manipulating the Price Improvement Mechanism. Such conduct includes, but is not limited to, engaging in a pattern of conduct where the Member submitting the Agency Order into the PIM breaks-up the Agency Order into separate orders for two (2) or fewer contracts for the purpose of gaining a higher allocation percentage than the Member would have

otherwise received in accordance with the allocation procedures contained in paragraph (d) above.

.02 The Price Improvement Mechanism may only be used to execute bona fide Crossing Transactions.

.03 There will be no minimum size requirements for orders to be eligible for the Price Improvement Mechanism.

.04 Only one PIM may be ongoing at any given time in a series. PIMs will not queue or overlap in any manner.

.05 Pursuant to Options 3, Section 13(c)(2), Electronic Access Members may enter Improvement Orders for the account of Public Customers.

.06 Any solicited Counter-Side Orders submitted by an Electronic Access Member to trade against Agency Orders may not be for the account of an Exchange Market Maker assigned to the options class.

.07 Counter-Side Orders and Improvement Orders entered into the Price Improvement Mechanism only will execute against the Agency Order, and any unexecuted interest will be automatically cancelled.

.08 PIM ISO Order. A PIM ISO order (PIM ISO) is the transmission of two orders for crossing pursuant to this Rule without regard for better priced Protected Bids or Protected Offers (as defined in Options 5, Section 1) because the Member transmitting the PIM ISO to the Exchange has, simultaneously with the routing of the PIM ISO, routed one or more ISOs, as necessary, to execute against the full displayed size of any Protected Bid or Protected Offer that is superior to the starting PIM auction price and has swept all interest in the Exchange's book priced better than the proposed auction starting price. Any execution(s) resulting from such sweeps shall accrue to the PIM order.

Section 14. Reserved.

Section 15. Simple Order Risk Protections

Incoming orders that are executable against orders and quotes in the System will be executed automatically by the System subject to the following:

(a) NBBO Price Protection. Orders, other than Intermarket Sweep Orders (as defined in Options 5, Section 1(h)), will not be automatically executed by the System at prices inferior to the NBBO (as defined in Options 5, Section 1(j)).

(1) Orders that are not automatically executed will be handled as provided in Supplementary Material .02 to Options 5, Section 2; provided that Members may specify

that a Non-Customer order should instead be rejected automatically by the System at the time of receipt.

(2) There is no NBBO price protection with respect to any other market whose quotations are Non-Firm (as defined in Options 5, Section 1(k)).

(b) Other Risk Protections. Subject to the NBBO price protection in (a) above, the following additional risk protections are automatically enforced by the System. In the event of unusual market conditions and in the interest of a fair and orderly market, the Exchange may temporarily establish the levels at which the order protections contained in this paragraph are triggered as necessary and appropriate.

(1) The following are order risk protections on GEMX:

(A) **Limit Order Price Protection.** There is a limit on the amount by which incoming limit orders to buy may be priced above the Exchange's best offer and by which incoming limit orders to sell may be priced below the Exchange's best bid. Limit orders that exceed the pricing limit are rejected. The limit is established by the Exchange from time-to-time for orders to buy (sell) as the greater of the Exchange's best offer (bid) plus (minus): (i) an absolute amount not to exceed \$2.00, or (ii) a percentage of the Exchange's best bid/offer not to exceed 10%. Limit Order Price Protection shall not apply to the Opening Process or during a trading halt.

(B) **Market Order Spread Protection.** Market Orders will be rejected if the NBBO is wider than a preset threshold at the time the order is received by the System. Market Order Spread Protection shall not apply to the Opening Process or during a trading halt. The Exchange may establish different thresholds for one or more series or classes of options.

(C) **Size Limitation.** There is a limit on the number of contracts an incoming order may specify. Orders that exceed the maximum number of contracts are rejected. The maximum number of contracts, which shall not be less than 10,000, is established by the Exchange from time-to-time.

(D) **Market Wide Risk Protection.** All Members must provide parameters for the order entry and execution rate protections described in this Rule. The Exchange will also establish default values for each of these parameters that apply to Members that do not submit the required parameters, and will announce these default values in an Options Trader Alert to be distributed to Members. The System will maintain one or more counting programs for each Member that count orders entered and contracts traded on Nasdaq GEMX or across both Nasdaq GEMX and Nasdaq ISE. Members can use multiple counting programs to separate risk protections for different groups established within the Member. The counting programs will maintain separate counts, over rolling time periods specified by the Member for each count, of: (1) the total number of orders entered; and (2) the total number of contracts traded. The minimum and maximum

duration of the applicable time period will be established by the Exchange and announced via an Options Trader Alert

(i) If, during the applicable time period, the Member exceeds thresholds that it has set for any of the order entry or execution counts described above on Nasdaq GEMX, or across both Nasdaq GEMX and Nasdaq ISE, in either case as set by the Member, the System will automatically reject all subsequent incoming orders entered by the Member on Nasdaq GEMX or, if applicable, across both Nasdaq GEMX and Nasdaq ISE.

(ii) Members may also choose to have the System automatically cancel all of their existing orders on Nasdaq GEMX, or across both Nasdaq GEMX and Nasdaq ISE, in either case as set by the Member, when the Market Wide Risk Protection is triggered.

(iii) The Market Wide Risk Protection will remain engaged until the Member manually notifies the Exchange to enable the acceptance of new orders. For Members that still have open orders on the book that have not been cancelled pursuant to Options 3, Section 15(b)(1)(D)(ii) above, the System will continue to allow those Members to interact with existing orders entered before the protection was triggered, including sending cancel order messages and receiving trade executions for those orders.

(2) The following are order and quote risk protections on GEMX:

(A) Acceptable Trade Range.

(i) The System will calculate an Acceptable Trade Range to limit the range of prices at which an order or quote will be allowed to execute. The Acceptable Trade Range is calculated by taking the reference price, plus or minus a value to be determined by the Exchange (i.e., the reference price - (x) for sell orders/quotes and the reference price + (x) for buy orders or quotes). The Acceptable Trade Range will not be available for All-or-None Orders.

(ii) The reference price is the NBB for sell orders/quotes and the NBO for buy orders/quotes. The reference price is calculated upon receipt of a new order or quote, provided that if the applicable NBB or NBO price is improved at the time an order is routed to an away market, a new reference price is calculated based on the NBB or NBO at that time.

(iii) If an order or quote reaches the outer limit of the Acceptable Trade Range without being fully executed then any unexecuted balance will be cancelled.

(iv) There will be three categories of options for Acceptable Trade Range: (1) Penny Pilot Options trading in one cent increments for options trading at less than \$3.00 and increments of five cents for options trading at \$3.00 or more, (2) Penny

Pilot Options trading in one-cent increments for all prices, and (3) Non-Penny Pilot Options.

(3) The following are Market Maker risk protections on GEMX:

(A) **Anti-Internalization.** Quotes and orders entered by Market Makers will not be executed against quotes and orders entered on the opposite side of the market by the same Market Maker using the same Market Maker identifiers, or alternatively, if selected by the Member, the same Exchange account number or Member firm identifier. In such a case, the System will cancel the resting quote or order back to the entering party prior to execution. This functionality shall not apply in any auction.

(B) **Automated Quotation Adjustments.**

(i) Market Makers are required to utilize the Percentage, Volume, Delta and Vega Thresholds, each a Threshold, described in (a) - (d) below. For each of these features, the System will automatically remove a Market Maker's quotes in all series in an options class when any of the Percentage Threshold, Volume Threshold, Delta Threshold or Vega Threshold, as described below, has been exceeded. A Market Maker is required to specify a period of time not to exceed 30 seconds ("Specified Time Period") during which the System will automatically remove a Market Maker's quotes in all series of an options class. The Specified Time Period will commence for an options class every time an execution occurs in any series in such option class and will continue until the System removes quotes as described in (ii) or (iii) or the Specified Time Period expires. The Specified Time Period operates on a rolling basis among all series in an options class in that there may be Specified Time Periods occurring simultaneously for each Threshold and such Specified Time Periods may overlap. The Specified Time Periods will be the same value for each protection described in (a) - (d) below.

(a) **Percentage Threshold.** A Market Maker must provide a specified percentage ("Percentage Threshold"), of not less than 1%, by which the System will automatically remove a Market Maker's quotes in all series of an options class. For each series in an options class, the System will determine (i) during a Specified Time Period and for each side in a given series, a percentage calculated by dividing the size of a Market Maker's quote size executed in a particular series (the numerator) by the Market Maker's quote size available at the time of execution plus the total number of the Market Maker's quote size previously executed during the unexpired Specified Time Period (the denominator) ("Series Percentage"); and (ii) the sum of the Series Percentage in the options class ("Issue Percentage") during a Specified Time Period. The System tracks and calculates the net impact of positions in the same options class; long call percentages are offset by short call percentages, and long put percentages are offset by short put percentages in the Issue Percentage. If the Issue Percentage exceeds the Percentage Threshold the System will automatically remove a Market Maker's quotes in all series of the options class during the Specified Time Period.

(b) **Volume Threshold.** A Market Maker must provide a Volume Threshold by which the System will automatically remove a Market Maker's quotes in all series of an options class when the Market Maker executes a number of contracts which exceeds the designated number of contracts in all series in an options class.

(c) **Delta Threshold.** A Market Maker must provide a Delta Threshold by which the System will automatically remove a Market Maker's quotes in all series of an options class. For each class of options, the System will maintain a Delta counter, which tracks the absolute value of the difference between (i) purchased call contracts plus sold put contracts and (ii) sold call contracts plus purchased put contracts. If the Delta counter exceeds the Delta Threshold established by the Member, the System will automatically remove a Market Maker's quotes in all series of the options class.

(d) **Vega Threshold.** A Market Maker must provide a Vega Threshold by which the System will automatically remove a Market Maker's quotes in all series of an options class. For each class of options, the System will maintain a Vega counter, which tracks the absolute value of purchased contracts minus sold contracts. If the Vega counter exceeds the Vega Threshold established by the Member, the System will automatically remove a Market Maker's quotes in all series of the options class.

(ii) The System will automatically remove quotes in all series of an options class when the Percentage Threshold, Volume Threshold, Delta Threshold or Vega Threshold has been exceeded. The System will send a Purge Notification Message to the Market Maker for all affected series when the above thresholds have been exceeded.

(a) The Percentage Threshold, Volume Threshold, Delta Threshold and Vega Threshold are considered independently of each other.

(b) Quotes will be automatically executed up to the Market Maker's size regardless of whether the execution would cause the Market Maker to exceed the Percentage Threshold, Volume Threshold, Delta Threshold or Vega Threshold.

(iii) Notwithstanding Options 3, Section 15(b)(3)(B)(i) and (ii) above, if a Market Maker requests the System to remove quotes in all series of an options class, the System will automatically reset all Thresholds.

(iv) When the System removes quotes as a result of exceeding the Percentage Threshold, Volume Threshold, Delta Threshold or Vega Threshold, the Market Maker must send a re-entry indicator to re-enter the System.

(v) If a Market Maker does not provide a parameter for each of the automated quotation removal protections described in (B)(i)(a) - (d) above, the Exchange will apply default parameters, which are announced to Members.

(vi) In addition to the automated quotation removal protections described in (B)(i)(a) - (d) above, a Market Maker must provide a market wide parameter by which the Exchange will automatically remove a Market Maker's quotes in all classes when, during a time period established by the Market Maker, the total number of quote removal events specified in (B)(i)(a) - (d) exceeds the market wide parameter provided to the Exchange by the Market Maker. Market Makers may request the Exchange to set the market wide parameter to apply to just Nasdaq GEMX or across Nasdaq GEMX and Nasdaq ISE. Market Makers must request the Exchange enable re-entry by contacting the Exchange's Operations Department.

(c) In the event of unusual market conditions and in the interest of a fair and orderly market, the Exchange may temporarily establish the levels at which the order protections contained in paragraph (b) are triggered as necessary and appropriate.

(d) Market Wide Risk Protection. All Members must provide parameters for the order entry and execution rate protections described in this Rule. The Exchange will also establish default values for each of these parameters that apply to Members that do not submit the required parameters, and will announce these default values in an Options Trader Alert to be distributed to Members. The System will maintain one or more counting programs for each Member that count orders entered and contracts traded on Nasdaq GEMX or across both Nasdaq GEMX and Nasdaq ISE. Members can use multiple counting programs to separate risk protections for different groups established within the Member. The counting programs will maintain separate counts, over rolling time periods specified by the Member for each count, of: (1) the total number of orders entered; and (2) the total number of contracts traded. The minimum and maximum duration of the applicable time period will be established by the Exchange and announced via an Options Trader Alert

(1) If, during the applicable time period, the Member exceeds thresholds that it has set for any of the order entry or execution counts described above on Nasdaq GEMX, or across both Nasdaq GEMX and Nasdaq ISE, in either case as set by the Member, the System will automatically reject all subsequent incoming orders entered by the Member on Nasdaq GEMX or, if applicable, across both Nasdaq GEMX and Nasdaq ISE.

(2) Members may also choose to have the System automatically cancel all of their existing orders on Nasdaq GEMX, or across both Nasdaq GEMX and Nasdaq ISE, in either case as set by the Member, when the Market Wide Risk Protection is triggered.

(3) The Market Wide Risk Protection will remain engaged until the Member manually notifies the Exchange to enable the acceptance of new orders. For Members that still have open orders on the book that have not been cancelled pursuant to Options 3, Section 15(d)(2) above, the System

will continue to allow those Members to interact with existing orders entered before the protection was triggered, including sending cancel order messages and receiving trade executions for those orders

Section 16. Reserved

Section 17. Kill Switch

(a) Kill Switch enables Members to initiate a message to the System to promptly cancel orders and restrict entry of new orders until re-entry has been enabled. Members may submit a request to the System to cancel orders for that Member. The System will send an automated message to the Member when a Kill Switch request has been processed by the Exchange's System.

(1) If orders are cancelled by the Member utilizing the Kill Switch, it will result in the cancellation of all orders for the Member. The Member will be unable to enter additional orders until re-entry has been enabled pursuant to Options 3, Section 4.

(2) After orders are cancelled by the Member utilizing the Kill Switch, the Member will be unable to enter additional orders until the Member 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 Member. The applicable Clearing Member also will be notified of the re-entry into the System after orders are cancelled as a result of the Kill Switch, provided the Clearing Member has requested to receive such notification.

Section 18. Detection of Loss of Communication

(a) Definitions

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

(2) SQF Port is the Exchange's proprietary System component through which GEMX Market Makers communicate their quotes from the Client Application.

(3) OTTO Port is the Exchange's proprietary System component through which Members communicate their orders from the Client Application.

(4) FIX Port is the Exchange's universal System component through which Members communicate their orders from the Client Application.

(5) Client Application is the System component of the Member through which the Exchange Member communicates its quotes and orders to the Exchange.

(6) Session of Connectivity shall mean each time the Member connects to the Exchange's System. Each new connection, intra-day or otherwise, is a new Session of Connectivity.

(b) When the SQF Port detects the loss of communication with a Member'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 Member's affected Client Application and automatically cancel all of the Member's open quotes pursuant to Section 18(e). Quotes will be cancelled across all Client Applications that are associated with the same GEMX Market Maker ID and underlying issues.

(c) When the OTTO Port detects the loss of communication with a Member'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 Member's affected Client Application and if the Member has elected to have its orders cancelled pursuant to Section 18(f) automatically cancel all orders.

(d) When the FIX Port detects the loss of communication with a Member'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 Member's affected Client Application and if the Member has elected to have its orders cancelled pursuant to Section 18(g) automatically cancel all orders.

(e) The default time period ("nn" seconds) for SQF Ports shall be fifteen (15) seconds. A Member may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (b) 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 Member and may not be disabled.

(1) If the Member 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 Member may change the default setting 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 Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

(f) The default period of "nn" seconds for OTTO Ports shall be fifteen (15) seconds for the disconnect and, if elected, the removal of orders. A Member may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (c) above, to trigger the disconnect and, if so elected, the 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 Member will be disconnected.

(1) If the Member 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 Member may change the default setting prior to each Session of Connectivity.

(2) If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

(g) The default period of "nn" seconds for FIX Ports shall be thirty (30) seconds for the disconnect and, if elected, the removal of orders. A Member may determine another time period of "nn" seconds of no technical connectivity, as required in paragraph (d) above, to trigger the disconnect and, if so elected, the 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 Member will be disconnected.

(1) If the Member 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 Member may change the default setting prior to each Session of Connectivity.

(2) If the time period is communicated to the Exchange by calling Exchange operations, the number of "nn" seconds selected by the Member shall persist for each subsequent Session of Connectivity until the Member either contacts Exchange operations by phone and changes the setting or the Member selects another time period through the Client Application prior to the next Session of Connectivity.

(h) The trigger for the SQF, OTTO, and FIX Ports is Client Application specific. The automatic cancellation of the GEMX Market Maker's quotes for SQF Ports and open orders, if elected by the Member, for OTTO and FIX Ports entered into the respective SQF, OTTO, or FIX Ports via a particular Client Application will neither impact nor determine the treatment of the quotes of other GEMX Market Makers entered into SQF Ports or orders of the same or other Members entered into OTTO or FIX Ports via a separate and distinct Client Application.

Section 19. Reserved.

Section 20. Nullification and Adjustment of Options Transactions including Obvious Errors

The Exchange may nullify a transaction or adjust the execution price of a transaction in accordance with this Rule. However, the determination as to whether a trade was executed at an erroneous price may be made by mutual agreement of the affected parties to a particular transaction. A trade may be nullified or adjusted on the terms that all parties to a particular transaction agree, provided, however, that such agreement to nullify or adjust must be conveyed to the Exchange in a manner prescribed by the Exchange prior to 8:30 a.m. Eastern Time on the

first trading day following the execution. It is considered conduct inconsistent with just and equitable principles of trade for any Member to use the mutual adjustment process to circumvent any applicable Exchange Rule, the Act or any of the rules and regulations thereunder.

(a) Definitions.

(1) Customer. For purposes of this Rule, Customer has the same definition as Priority Customer in Options 1, Section 1(a)(35).

(2) Erroneous Sell/Buy Transaction. For purposes of this Rule, an "erroneous sell transaction" is one in which the price received by the person selling the option is erroneously low, and an "erroneous buy transaction" is one in which the price paid by the person purchasing the option is erroneously high.

(3) Official. For purposes of this Rule, an Official is an Officer of the Exchange or such other employee designee of the Exchange that is trained in the application of this Rule.

(4) Size Adjustment Modifier. For purposes of this Rule, the Size Adjustment Modifier will be applied to individual transactions as follows:

<u>Number of Contracts per Execution</u>	<u>Adjustment - TP Plus/Minus</u>
<u>1-50</u>	<u>N/A</u>
<u>51-250</u>	<u>2 times adjustment amount</u>
<u>251-1000</u>	<u>2.5 times adjustment amount</u>
<u>1001 or more</u>	<u>3 times adjustment amount</u>

(b) Theoretical Price. Upon receipt of a request for review and prior to any review of a transaction execution price, the "Theoretical Price" for the option must be determined. For purposes of this Rule, if the applicable option series is traded on at least one other options exchange, then the Theoretical Price of an option series is the last NBB just prior to the trade in question with respect to an erroneous sell transaction or the last NBO just prior to the trade in question with respect to an erroneous buy transaction unless one of the exceptions in subparagraphs (b)(1) through (3) below exists. For purposes of this provision, when a single order received by the Exchange is executed at multiple price levels, the last NBB and last NBO just prior to the trade in question would be the last NBB and last NBO just prior to the Exchange's receipt of the order. The Exchange will rely on this paragraph (b) and Supplementary Material .04 of this Rule when determining Theoretical Price.

(1) Transactions at the Open. For a transaction occurring during the opening rotation (see Options 3, Section 8) the Exchange will determine the Theoretical Price if there is no NBB or NBO for the affected series just prior to the erroneous transaction or if the bid/ask differential of the NBB and NBO just prior to the erroneous transaction is equal to or greater than the Minimum Amount set forth in the chart contained in sub-paragraph (b)(3) below. If the bid/ask differential is less than the Minimum Amount, the Theoretical Price is the NBB or NBO just prior to the erroneous transaction.

(2) No Valid Quotes. The Exchange will determine the Theoretical Price if there are no quotes or no valid quotes for comparison purposes. Quotes that are not valid are:

(A) all quotes in the applicable option series published at a time where the last NBB is higher than the last NBO in such series (a "crossed market");

(B) quotes published by the Exchange that were submitted by either party to the transaction in question;

(C) quotes published by another options exchange if either party to the transaction in question submitted the quotes in the series representing such options exchange's best bid or offer, provided that the Exchange will only consider quotes invalid on other options exchanges in up to twenty-five (25) total options series that the party identifies to the Exchange the quotes which were submitted by such party and published by other options exchanges; and

(D) quotes published by another options exchange against which the Exchange has declared self-help.

(3) Wide Quotes. The Exchange will determine the Theoretical Price if the bid/ask differential of the NBB and NBO for the affected series just prior to the erroneous transaction was equal to or greater than the Minimum Amount set forth below and there was a bid/ask differential less than the Minimum Amount during the 10 seconds prior to the transaction. If there was no bid/ask differential less than the Minimum Amount during the 10 seconds prior to the transaction then the Theoretical Price of an option series is the last NBB or NBO just prior to the transaction in question, as set forth in paragraph (b) above.

<u>Bid Price at Time of Trade</u>	<u>Minimum Amount</u>
<u>Below \$2.00</u>	<u>\$0.75</u>
<u>\$2.00 to \$5.00</u>	<u>\$1.25</u>

<u>Above \$5.00 to \$10.00</u>	<u>\$1.50</u>
<u>Above \$10.00 to \$20.00</u>	<u>\$2.50</u>
<u>Above \$20.00 to \$50.00</u>	<u>\$3.00</u>
<u>Above \$50.00 to \$100.00</u>	<u>\$4.50</u>
<u>Above \$100.00</u>	<u>\$6.00</u>

(c) Obvious Errors.

(1) Definition. For purposes of this Rule, an Obvious Error will be deemed to have occurred when the Exchange receives a properly submitted filing where the execution price of a transaction is higher or lower than the Theoretical Price for the series by an amount equal to at least the amount shown below:

<u>Theoretical Price</u>	<u>Minimum Amount</u>
<u>Below \$2.00</u>	<u>\$0.25</u>
<u>\$2.00 to \$5.00</u>	<u>\$0.40</u>
<u>Above \$5.00 to \$10.00</u>	<u>\$0.50</u>
<u>Above \$10.00 to \$20.00</u>	<u>\$0.80</u>
<u>Above \$20.00 to \$50.00</u>	<u>\$1.00</u>
<u>Above \$50.00 to \$100.00</u>	<u>\$1.50</u>
<u>Above \$100.00</u>	<u>\$2.00</u>

(2) Time Deadline. A party that believes that it participated in a transaction that was the result of an Obvious Error must notify the Exchange's Market Control in the manner specified from time to time by the Exchange in an Options Trader Alert distributed to Members. Such notification must be received by the Exchange's Market Control within the timeframes specified below:

(A) *Customer Orders.* For an execution of a Customer order, a filing must be received by the Exchange within thirty (30) minutes of the execution, subject to sub-paragraph (C) below; and

(B) *"Non-Customer" Orders.* For an execution of any order other than a Customer order, a filing must be received by the Exchange within fifteen (15) minutes of the execution, subject to sub-paragraph (C) below.

(C) *Linkage Trades.* Any other options exchange will have a total of forty-five (45) minutes for Customer orders and thirty (30) minutes for non-Customer orders, measured from the time of execution on the Exchange, to file with the Exchange for review of transactions routed to the Exchange from that options exchange and executed on the Exchange ("linkage trades"). This includes filings on behalf of another options exchange filed by a third-party routing broker if such third-party broker identifies the affected transactions as linkage trades. In order to facilitate timely reviews of linkage trades the Exchange will accept filings from either the other options exchange or, if applicable, the third-party routing broker that routed the applicable order(s). The additional fifteen (15) minutes provided with respect to linkage trades shall only apply to the extent the options exchange that originally received and routed the order to the Exchange itself received a timely filing from the entering participant (i.e., within 30 minutes if a Customer order or 15 minutes if a non-Customer order).

(3) *Official Acting on Own Motion.* An Official may review a transaction believed to be erroneous on his/her own motion in the interest of maintaining a fair and orderly market and for the protection of investors. A transaction reviewed pursuant to this paragraph may be nullified or adjusted only if it is determined by the Official that the transaction is erroneous in accordance with the provisions of this Rule, provided that the time deadlines of sub-paragraph (c)(2) above shall not apply. The Official shall act as soon as possible after becoming aware of the transaction, and ordinarily would be expected to act on the same day that the transaction occurred. In no event shall the Official act later than 8:30 a.m. Eastern Time on the next trading day following the date of the transaction in question. A party affected by a determination to nullify or adjust a transaction pursuant to this provision may appeal such determination in accordance with paragraph (k) below; however, a determination by an Official not to review a transaction or determination not to nullify or adjust a transaction for which a review was conducted on an Official's own motion is not appealable. If a transaction is reviewed and a determination is rendered pursuant to another provision of this Rule, no additional relief may be granted under this provision.

(4) *Adjust or Bust.* If it is determined that an Obvious Error has occurred, the Exchange shall take one of the actions listed below. Upon taking final action, the Exchange shall promptly notify both parties to the trade electronically or via telephone.

(A) *Non-Customer Transactions.* Where neither party to the transaction is a Customer, the execution price of the transaction will be adjusted by the Official

pursuant to the table below. Any non-Customer Obvious Error exceeding 50 contracts will be subject to the Size Adjustment Modifier defined in subparagraph (a)(4) above.

<u>Theoretical Price (TP)</u>	<u>Buy Transaction Adjustment - TP Plus</u>	<u>Sell Transaction Adjustment - TP Minus</u>
<u>Below \$3.00</u>	<u>\$0.15</u>	<u>\$0.15</u>
<u>At or above \$3.00</u>	<u>\$0.30</u>	<u>\$0.30</u>

(B) Customer Transactions. Where at least one party to the Obvious Error is a Customer, the trade will be nullified, subject to subparagraph (C) below.

(C) If any Member submits requests to the Exchange for review of transactions pursuant to this Rule, and in aggregate that Member has 200 or more Customer transactions under review concurrently and the orders resulting in such transactions were submitted during the course of 2 minutes or less, where at least one party to the Obvious Error is a non-Customer, the Exchange will apply the non-Customer adjustment criteria set forth in subparagraph (A) above to such transactions.

(d) Catastrophic Errors.

(1) Definition. For purposes of this Rule, a Catastrophic Error will be deemed to have occurred when the execution price of a transaction is higher or lower than the Theoretical Price for the series by an amount equal to at least the amount shown below:

<u>Theoretical Price</u>	<u>Minimum Amount</u>
<u>Below \$2.00</u>	<u>\$0.50</u>
<u>\$2.00 to \$5.00</u>	<u>\$1.00</u>
<u>Above \$5.00 to \$10.00</u>	<u>\$1.50</u>
<u>Above \$10.00 to \$20.00</u>	<u>\$2.00</u>
<u>Above \$20.00 to \$50.00</u>	<u>\$2.50</u>
<u>Above \$50.00 to \$100.00</u>	<u>\$3.00</u>

<u>Above \$100.00</u>	<u>\$4.00</u>
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(2) Time Deadline. A party that believes that it participated in a transaction that was the result of a Catastrophic Error must notify the Exchange's Market Control in the manner specified from time to time by the Exchange in an Options Trader Alert distributed to Members. Such notification must be received by the Exchange's Market Control by 8:30 a.m. Eastern Time on the first trading day following the execution. For transactions in an expiring options series that take place on an expiration day, a party must notify the Exchange's Market Control within 45 minutes after the close of trading that same day.

(3) Adjust or Bust. If it is determined that a Catastrophic Error has occurred, the Exchange shall take action as set forth below. Upon taking final action, the Exchange shall promptly notify both parties to the trade electronically or via telephone. In the event of a Catastrophic Error, the execution price of the transaction will be adjusted by the Official pursuant to the table below. Any Customer order subject to this sub-paragraph will be nullified if the adjustment would result in an execution price higher (for buy transactions) or lower (for sell transactions) than the Customer's limit price.

<u>Theoretical Price (TP)</u>	<u>Buy Transaction Adjustment - TP Plus</u>	<u>Sell Transaction Adjustment - TP Minus</u>
<u>Below \$2.00</u>	<u>\$0.50</u>	<u>\$0.50</u>
<u>\$2.00 to \$5.00</u>	<u>\$1.00</u>	<u>\$1.00</u>
<u>Above \$5.00 to \$10.00</u>	<u>\$1.50</u>	<u>\$1.50</u>
<u>Above \$10.00 to \$20.00</u>	<u>\$2.00</u>	<u>\$2.00</u>
<u>Above \$20.00 to \$50.00</u>	<u>\$2.50</u>	<u>\$2.50</u>
<u>Above \$50.00 to \$100.00</u>	<u>\$3.00</u>	<u>\$3.00</u>
<u>Above \$100.00</u>	<u>\$4.00</u>	<u>\$4.00</u>

(e) Significant Market Events.

(1) Definition. For purposes of this Rule, a Significant Market Event will be deemed to have occurred when: criterion (A) below is met or exceeded or the sum of all applicable event statistics, where each is expressed as a percentage of the relevant threshold in criteria (A) through (D) below, is greater than or equal to 150% and 75% or more of at least one category is reached, provided that no single category can contribute more than 100% to the sum and any category contributing more than 100% will be rounded down to 100%. All criteria set forth below will be measured in aggregate across all exchanges.

(A) Transactions that are potentially erroneous would result in a total Worst-Case Adjustment Penalty of \$30,000,000, where the Worst- Case Adjustment Penalty is computed as the sum, across all potentially erroneous trades, of:

(i) \$0.30 (i.e., the largest Transaction Adjustment value listed in sub-paragraph (e)(3)(A) below); times

(ii) the contract multiplier for each traded contract; times

(iii) the number of contracts for each trade; times

(iv) the appropriate Size Adjustment Modifier for each trade, if any, as defined in sub-paragraph (e)(3)(A) below.

(B) Transactions involving 500,000 options contracts are potentially erroneous;

(C) Transactions with a notional value (i.e., number of contracts traded multiplied by the option premium multiplied by the contract multiplier) of \$100,000,000 are potentially erroneous;

(D) 10,000 transactions are potentially erroneous.

(2) Coordination with Other Options Exchanges. To ensure consistent application across options exchanges, in the event of a suspected Significant Market Event, the Exchange shall initiate a coordinated review of potentially erroneous transactions with all other affected options exchanges to determine the full scope of the event. When this paragraph is invoked, the Exchange will promptly coordinate with the other options exchanges to determine the appropriate review period as well as select one or more specific points in time prior to the transactions in question and use one or more specific points in time to determine Theoretical Price. Other than the selected points in time, if applicable, the Exchange will determine Theoretical Price in accordance with paragraph (b) above.

(3) Adjust or Bust. If it is determined that a Significant Market Event has occurred then, using the parameters agreed as set forth in sub-paragraph (e)(2) above, if applicable, an Official will determine whether any or all transactions under review qualify as Obvious Errors. The Exchange shall take one of the actions listed below with respect to all transactions that qualify as Obvious Errors pursuant to sub-paragraph (c)(1) above. Upon

taking final action, the Exchange shall promptly notify both parties to the trade electronically or via telephone.

(A) The execution price of each affected transaction will be adjusted by an Official to the price provided below unless both parties agree to adjust the transaction to a different price or agree to bust the trade. In the context of a Significant Market Event, any error exceeding 50 contracts will be subject to the Size Adjustment Modifier defined in subparagraph (a)(4) above.

<u>Theoretical Price (TP)</u>	<u>Buy Transaction Adjustment - TP Plus</u>	<u>Sell Transaction Adjustment - TP Minus</u>
<u>Below \$3.00</u>	<u>\$0.15</u>	<u>\$0.15</u>
<u>At or above \$3.00</u>	<u>\$0.30</u>	<u>\$0.30</u>

(B) Where at least one party to the transaction is a Customer, the trade will be nullified if the adjustment would result in an execution price higher (for buy transactions) or lower (for sell transactions) than the Customer's limit price.

(4) Nullification of Transactions. If the Exchange, in consultation with other options exchanges, determines that timely adjustment is not feasible due to the extraordinary nature of the situation, then the Exchange will nullify some or all transactions arising out of the Significant Market Event during the review period selected by the Exchange and other options exchanges consistent with this paragraph. To the extent the Exchange, in consultation with other options exchanges, determines to nullify less than all transactions arising out of the Significant Market Event, those transactions subject to nullification will be selected based upon objective criteria with a view toward maintaining a fair and orderly market and the protection of investors and the public interest.

(5) Final Rulings. With respect to rulings made pursuant to this paragraph, the number of affected transactions is such that immediate finality is necessary to maintain a fair and orderly market and to protect investors and the public interest. Accordingly, rulings by the Exchange pursuant to this paragraph are non-appealable.

(f) Trading Halts. The Exchange shall nullify any transaction that occurs during a trading halt in the affected option on the Exchange pursuant to Options 3, Section 9.

(g) Erroneous Print in Underlying. A trade resulting from an erroneous print(s) disseminated by the underlying market that is later nullified by that underlying market shall be adjusted or busted

as set forth in sub-paragraph (c)(4) of this Rule, provided a party notifies the Exchange's Market Control in a timely manner as set forth below. For purposes of this paragraph, a trade resulting from an erroneous print(s) shall mean any options trade executed during a period of time for which one or more executions in the underlying security are nullified and for one second thereafter. If a party believes that it participated in an erroneous transaction resulting from an erroneous print(s) pursuant to this paragraph it must notify the Exchange's Market Control within the timeframes set forth in sub-paragraph (c)(2) above, with the allowed notification timeframe commencing at the time of notification by the underlying market(s) of nullification of transactions in the underlying security. If multiple underlying markets nullify trades in the underlying security, the allowed notification timeframe will commence at the time of the first market's notification.

(h) *Erroneous Quote in Underlying.* A trade resulting from an erroneous quote(s) in the underlying security shall be adjusted or busted as set forth in subparagraph (c)(4) this Rule, provided a party notifies the Exchange's Market Control in a timely manner as set forth below. An erroneous quote occurs when the underlying security has a width of at least \$1.00 and has a width at least five times greater than the average quote width for such underlying security during the time period encompassing two minutes before and after the dissemination of such quote. For purposes of this paragraph, the average quote width shall be determined by adding the quote widths of sample quotations at regular 15-second intervals during the four-minute time period referenced above (excluding the quote(s) in question) and dividing by the number of quotes during such time period (excluding the quote(s) in question). If a party believes that it participated in an erroneous transaction resulting from an erroneous quote(s) pursuant to this paragraph it must notify the Exchange's Market Control in accordance with sub-paragraph (c)(2) above.

(i) *Stop (and Stop-Limit) Order Trades Triggered by Erroneous Trades.* Transactions resulting from the triggering of a stop or stop-limit order by an erroneous trade in an option contract shall be nullified by the Exchange, provided a party notifies the Exchange's Market Control in a timely manner as set forth below. If a party believes that it participated in an erroneous transaction pursuant to this paragraph it must notify the Exchange's Market Control within the timeframes set forth in sub-paragraph (c)(2) above, with the allowed notification timeframe commencing at the time of notification of the nullification of transaction(s) that triggered the stop or stop-limit order.

(j) *Linkage Trades.* If the Exchange routes an order pursuant to the Plan (as defined in Options 5, Section 1(n)) that results in a transaction on another options exchange (a "Linkage Trade") and such options exchange subsequently nullifies or adjusts the Linkage Trade pursuant to its Rules, the Exchange will perform all actions necessary to complete the nullification or adjustment of the Linkage Trade.

(k) *Appeals.* If a Member affected by a determination made under this Rule so requests within the time permitted below, an Exchange Review Council panel will review decisions made by the Official under this Rule, including whether an obvious error occurred and whether the correct determination was made.

(1) An Exchange Review Council panel will be comprised minimally of representatives of one (1) Member engaged in market making and two (2) industry representatives not engaged in market making. At no time should a review panel have more than 50% Members engaged in market making.

(2) A request for review on appeal must be made in writing via e-mail or other electronic means specified from time to time by the Exchange in an Options Trader Alert distributed to Members within thirty (30) minutes after the party making the appeal is given notification of the initial determination being appealed. The Exchange Review Council panel shall review the facts and render a decision as soon as practicable, but generally on the same trading day as the execution(s) under review. On requests for appeal received after 3:00 p.m. Eastern Time, a decision will be rendered as soon as practicable, but in no case later than the trading day following the date of the execution under review.

(3) The Exchange Review Council panel may overturn or modify an action taken by the Official under this Rule. All determinations by the Exchange Review Council panel shall constitute final action by the Exchange on the matter at issue.

(4) If the Exchange Review Council panel votes to uphold the decision made pursuant to paragraph (k) above, the Exchange will assess a \$5,000.00 fee against the Member(s) who initiated the request for appeal. In addition, in instances where the Exchange, on behalf of a Member, requests a determination by another market center that a transaction is clearly erroneous, the Exchange will pass any resulting charges through to the relevant Member.

(5) Any determination by an Official or by the Exchange Review Council panel shall be rendered without prejudice as to the rights of the parties to the transaction to submit their dispute to arbitration.

(1) Erroneous Trades due to System Disruptions and Malfunctions

(1) Verifiable Disruptions or Malfunctions of Exchange Systems.

(A) Transactions arising out of a "verifiable disruption or malfunction" in the use or operation of any Exchange automated quotation, dissemination, execution, or communication system may either be nullified or adjusted by Market Control. Transactions that qualify for price adjustment will be adjusted in accordance with the guidelines contained in Options 3, Section 20(b)(2)(i)(A) and (B).

(B) Absent extraordinary circumstances, any such action by Market Control pursuant to this Rule shall be initiated within sixty (60) minutes of the occurrence of the erroneous transaction that resulted from a verifiable disruption or malfunction. Each Member involved in the transaction shall be notified as soon as practicable.

(C) Any Member aggrieved by the action of Market Control taken pursuant to paragraph (A) above may appeal such action in accordance with the provisions of subsection (2).

(2) Procedures for Review of Decisions Made Pursuant to Options 3, Section 20(l)(1).

(A) If a party to a ruling by Market Control made pursuant to subsection (1) of this Rule requests within the time permitted below, an Exchange Review Council panel will be utilized to review decisions made by Market Control under this Rule.

(i) An Exchange Review Council panel will be comprised minimally of representatives of one (1) Member engaged in market making and two (2) industry representatives not engaged in market making. At no time should a review panel have more than 50% Members engaged in market making.

(ii) A request for review on appeal must be made via facsimile or e-mail within thirty (30) minutes after the party making the appeal is given notification of the initial determination being appealed. The Exchange Review Council panel shall review the facts and render a decision within the time frame prescribed by the Exchange.

(iii) The Exchange Review Council panel may overturn or modify an action taken by the Exchange under this Rule. All determinations by the Exchange Review Council panel shall constitute final action by the Exchange on the matter at issue.

Supplementary Material to Options 3, Section 20

.01 Limit Up-Limit Down State. During a pilot period set that expires at the close of business on October 18, 2019, an execution will not be subject to review as an Obvious Error or Catastrophic Error pursuant to paragraph (c) or (d) of this Rule if it occurred while the underlying security was in a "Limit State" or "Straddle State," as defined in the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS under the Act (the "Limit Up-Limit Down Plan"). Nothing in this provision shall prevent such execution from being reviewed on an Official's own motion pursuant to sub-paragraph (c)(3) of this Rule, or a bust or adjust pursuant to paragraphs (e) through (j) of this Rule.

.02 For the purposes of this Rule, to the extent the provisions of this Rule would result in the Exchange applying an adjustment of an erroneous sell transaction to a price lower than the execution price or an erroneous buy transaction to a price higher than the execution price, the Exchange will not adjust or nullify the transaction, but rather, the execution price will stand.

.03 When Market Control determines that an Error has occurred and action is warranted under paragraphs (c) or (d) above, the identity of the parties to the trade will be disclosed to each other in order to encourage conflict resolution.

.04 Exchange Determining Theoretical Price. For purposes of this Rule, when the Exchange must determine Theoretical Price pursuant to sub-paragraphs (b)(1)-(3) of this Rule (i.e., at the open, when there are no valid quotes or when there is a wide quote), then the Exchange will determine Theoretical Price as follows.

(a) The Exchange will request Theoretical Price from the third party vendor defined in paragraph (d) below ("TP Provider") to which the Exchange and all other options exchanges have subscribed. The Exchange will apply the Theoretical Price provided by the TP Provider, except as otherwise described below.

(b) To the extent an Official of the Exchange believes that the Theoretical Price provided by the TP Provider is fundamentally incorrect and cannot be used consistent with the maintenance of a fair and orderly market, the Official shall contact the TP Provider to notify the TP Provider of the reason the Official believes such Theoretical Price is inaccurate and to request a review and correction of the calculated Theoretical Price. The Exchange shall also promptly provide electronic notice to other options exchanges that the TP Provider has been contacted consistent with this paragraph and include a brief explanation of the reason for the request.

(c) An Official of the Exchange may determine the Theoretical Price if the TP Provider has experienced a systems issue that has rendered its services unavailable to accurately calculate Theoretical Price and such issue cannot be corrected in a timely manner.

(d) The current TP Provider to which the Exchange and all other options exchanges have subscribed is: CBOE Livevol, LLC. Neither the Exchange, the TP Provider, nor any affiliate of the TP Provider (the TP Provider and its affiliates are referred to collectively as the "TP Provider"), makes any warranty, express or implied, as to the results to be obtained by any person or entity from the use of the TP Provider pursuant to this Supplementary Material .04. The TP Provider does not guarantee the accuracy or completeness of the calculated Theoretical Price. The TP Provider disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to such Theoretical Price. Neither the Exchange nor the TP Provider shall have any liability for any damages, claims, losses (including any indirect or consequential losses), expenses, or delays, whether direct or indirect, foreseen or unforeseen, suffered by any person arising out of any circumstance or occurrence relating to the use of such Theoretical Price or arising out of any errors or delays in calculating such Theoretical Price.

Section 21. Access to and Conduct on the Exchange

(a) Access to Exchange. Unless otherwise provided in the Rules, no one but a Member or a person associated with a Member shall effect any Exchange Transactions. The Exchange may share any Member-designated risk settings in the System with the Clearing Member that clears transactions on behalf of the Member.

(b) Exchange Conduct. Members and persons employed by or associated with any Member, while using the facilities of the Exchange, shall not engage in conduct (i) inconsistent with the maintenance of a fair and orderly market; (ii) apt to impair public confidence in the operations of the Exchange; or (iii) inconsistent with the ordinary and efficient conduct of business. Activities that may violate the provisions of this paragraph (b) include, but are not limited to, the following:

(1) failure of a Market Maker to provide quotations in accordance with Options 2, Section 5;

(2) failure of a Market Maker to bid or offer within the ranges specified by Options 2, Section 4;

(3) failure of a Member to supervise a person employed by or associated with such Member adequately to ensure that person's compliance with this paragraph (b);

(4) failure to abide by a determination of the Exchange;

(5) refusal to provide information requested by the Exchange; and

(6) failure to abide by the provisions of Options 3, Section 22.

Supplementary Material to Options 3, Section 21

.01

(a) General. The Exchange shall be available for entry and execution of orders by Sponsored Customers with authorized access. Sponsored Access shall mean an arrangement whereby a Member permits its customers to enter orders into the System that bypass the Member's trading system and are routed directly to the Exchange, including routing through a service bureau or other third party technology provider.

(b) Sponsored Customers. A Sponsored Customer may obtain authorized access to the Exchange only if such access is authorized in advance by one or more Sponsoring Members as follows:

(1) Sponsored Customers must enter into and maintain customer agreements with one or more Sponsoring Members establishing proper relationship(s) and account(s) through which the Sponsored Customers may trade on the Exchange ("Customer Agreement"). Such Customer Agreement(s) must incorporate the sponsorship provisions set forth in paragraph (2) below.

(2) For a Sponsored Customer to obtain and maintain authorized access to the Exchange, a Sponsored Customer and its Sponsoring Member must agree in writing to the following sponsorship provisions:

(i) The authorized access must comply with Rule 15c3-5 under the Securities Exchange Act of 1934.

(ii) Sponsoring Member acknowledges and agrees that

(A) All orders entered by the Sponsored Customer and any person acting on behalf of or in the name of such Sponsored Customer and any executions occurring as a result of such orders are binding in all respects on the Sponsoring Member, and

(B) Sponsoring Member is responsible for any and all actions taken by such Sponsored Customer and any person acting on behalf of or in the name of such Sponsored Customer.

(iii) Sponsoring Member shall comply with the Exchange's Certificate of Formation, By-Laws, Rules and procedures with regard to the Exchange and Sponsored Customer shall comply with Exchange's Certificate of Formation, By-Laws, Rules and procedures with regard to the Exchange, as if Sponsored Customer were an Exchange Member.

(iv) Sponsored Customer shall maintain, keep current and provide to the Sponsoring Member a list of persons who have been granted access to the Exchange on behalf of the Sponsored Customer ("Authorized Traders").

(v) Sponsored Customer shall familiarize its Authorized Traders with all of the Sponsored Customer's obligations under this Rule and will assure that they receive appropriate training prior to any use or access to the Exchange.

(vi) Sponsored Customer may not permit anyone other than Authorized Traders to use or obtain access to the Exchange.

(vii) Sponsored Customer shall take reasonable security precautions to prevent unauthorized use or access to the Exchange, including unauthorized entry of information into the Exchange's System, or the information and data made available therein. Sponsored Customer understands and agrees that Sponsored Customer is responsible for any and all orders, trades and other messages and instructions entered, transmitted or received under identifiers, passwords and security codes of Authorized Traders, and for the trading and other consequences thereof.

(viii) Sponsored Customer acknowledges its responsibility to establish adequate procedures and controls that permit it to effectively monitor its employees, agents and customers' use and access to the Exchange for compliance with this Rule.

(ix) Sponsored Customer shall pay when due all amounts, if any, payable to Sponsoring Member, the Exchange or any other third parties that arise from the

Sponsored Customer's access to and use of the Exchange. Such amounts include, but are not limited to applicable exchange and regulatory fees.

Section 22. Limitations on Orders

(a) Limit Orders. Electronic Access Members shall not enter Priority 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.

(b) Principal Transactions. Electronic Access Members may not execute as principal orders they represent as agent unless (i) agency orders are first exposed on the Exchange for at least one (1) second, (ii) the Electronic Access Member has been bidding or offering on the Exchange for at least one (1) second prior to receiving an agency order that is executable against such bid or offer, or (iii) the Member utilizes the Facilitation Mechanism pursuant to Options 3, Section 11(d), or (iv) the Member utilizes the Price Improvement Mechanism for Crossing Transactions pursuant to Options 3, Section 13.

(c) Solicitation Orders. Electronic Access Members may not execute orders they represent as agent on the Exchange against orders solicited from Members and non-Member broker-dealers to transact with such orders unless (i) the unsolicited order is first exposed on the Exchange for at least one (1) second, (ii) the Member utilizes the Solicited Order Mechanism pursuant to Options 3, Section 11(e), (iii) the Member utilizes the Facilitation Mechanism pursuant to Options 3, Section 11(d) or (iv) the Member utilizes the Price Improvement Mechanism for Crossing Transactions pursuant to Options 3, Section 13.

(d) Orders for the Account of Another Member. Electronic Access Members shall not cause the entry of orders for the account of an Exchange Market Maker that is exempt from the provisions of Regulation T of the Board of Governors of the Federal Reserve System pursuant to Section 7(c)(2) of the Exchange Act unless such orders are identified as orders for the account of an Exchange Market Maker in the manner prescribed by the Exchange.

Supplementary Material to Options 3, Section 22

.01 Options 3, Section 22(b) prevents an Electronic Access Member from executing agency orders to increase its economic gain from trading against the order without first giving other trading interest on the Exchange an opportunity to either trade with the agency order or to trade at the execution price when the Member was already bidding or offering on the book. However, the Exchange recognizes that it may be possible for an Electronic Access Member to establish a relationship with a customer or other person (including affiliates) to deny agency orders the opportunity to interact on the Exchange and to realize similar economic benefits as it would achieve by executing agency orders as principal. It will be a violation of Options 3, Section 22(d) for an Electronic Access Member to be a party to any arrangement designed to circumvent

Options 3, Section 22(d) by providing an opportunity for a customer or other person (including affiliates) to regularly execute against agency orders handled by the Electronic Access Member immediately upon their entry into the System.

.02 It will be a violation of Options 3, Section 22(c) for an Electronic Access Member to cause the execution of an order it represents as agent on the Exchange by orders it solicited from Members and non-Member broker-dealers to transact with such orders, whether such solicited orders are entered into the System directly by the Electronic Access Member or by the solicited party (either directly or through another Member), if the Member fails to expose orders on the Exchange as required by Options 3, Section 22(e).

.03 With respect to the non-displayed reserve portion of a reserve order, the exposure requirement of paragraphs (b) and (c) are satisfied if the displayable portion of the reserve order is displayed at its displayable price for one second.

.04 The exposure requirement of paragraph (b) and (c) of Options 3, Section 22 applies to the entry of orders with knowledge that there is a pre-existing unexecuted agency, proprietary, or solicited order on the Exchange. Members may demonstrate that orders were entered without knowledge by providing evidence that effective information barriers between the persons, business units and/or systems entering the orders onto the Exchange were in existence at the time the orders were entered. Such information barriers must be fully documented and provided to the Exchange upon request.

Section 23. Data Feeds and Trade Information

(a) The following data feeds contain ISE trading information offered by GEMX:

(1) Nasdaq GEMX Depth of Market Data Feed ("Depth of Market Feed") provides aggregate quotes and orders at the top five price levels on GEMX, and provides subscribers with a consolidated view of tradable prices beyond the BBO, showing additional liquidity and enhancing transparency for GEMX traded options. The data provided for each option series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on ISE and identifies if the series is available for closing transactions only. In addition, subscribers are provided with total aggregate quantity, Public Customer aggregate quantity, Priority Customer aggregate quantity, price, and side (i.e., bid/ask). This information is provided for each of the top five price levels on the Depth Feed. The feed also provides order imbalances on opening/reopening.

(2) Nasdaq GEMX Order Feed ("Order Feed") provides information on new orders resting on the book (e.g. price, quantity and market participant capacity). In addition, the feed also announces all auctions. The data provided for each option series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on GEMX and identifies if the series is available for closing transactions only. The feed also provides order imbalances on opening/reopening.

(3) Nasdaq GEMX Top Quote Feed ("Top Quote Feed") calculates and disseminates GEMX's best bid and offer position, with aggregated size (including total size in aggregate, for Professional Order size in the aggregate and Priority Customer Order size in the aggregate), based on displayable order and quote interest in the System. The feed also provides last trade information along with opening price, daily trading volume, high and low prices for the day. The data provided for each option series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on GEMX and identifies if the series is available for closing transactions only. The feed also provides order imbalances on opening/reopening.

(4) Nasdaq GEMX Trades Feed ("Trades Feed") displays last trade information along with opening price, daily trading volume, high and low prices for the day. The data provided for each option series includes the symbols (series and underlying security), put or call indicator, expiration date, the strike price of the series, and whether the option series is available for trading on GEMX and identifies if the series is available for closing transactions only.

(b) The following order and execution information is available to Members:

(1) Clearing Trade Interface ("CTI") is a real-time cleared trade update message that is sent to a Member after an execution has occurred and contains trade details specific to that Member. The information includes, among other things, the following: (i) The Clearing Member Trade Agreement ("CMTA") or The Options Clearing Corporation ("OCC") number; (ii) badge or mnemonic; (iii) account number; (iv) information which identifies the transaction type (e.g. auction type) for billing purposes; and (v) market participant capacity.

(2) TradeInfo, a user interface, permits a Member to: (i) search all orders submitted in a particular security or all orders of a particular type, regardless of their status (open, canceled, executed, etc.); (ii) view orders and executions; and (iii) download orders and executions for recordkeeping purposes. TradeInfo users may also cancel open orders at the order, port or firm mnemonic level through TradeInfo.

(3) FIX DROP is a real-time order and execution update message that is sent to a Member after an order been received/modified or an execution has occurred and contains trade details specific to that Member. The information includes, among other things, the following: (i) executions; (ii) cancellations; (iii) modifications to an existing order; and (iv) busts or post-trade corrections.

Section 24. Transaction Price Binding

The price at which an order is executed shall be binding notwithstanding that an erroneous report in respect thereto may have been rendered, or no report rendered. A report shall not be binding if an order was not actually executed but was reported to have been executed in error.

Section 25. Reserved

Section 26. Message Traffic Mitigation

In order to control the number of quotations the Exchange disseminates, the Exchange shall disseminate an updated bid and offer price, together with the size associated with such bid and offer, when: (1) the Exchange's disseminated bid or offer price increases or decreases; (2) the size associated with the Exchange's disseminated bid or offer decreases; or (3) the size associated with the Exchange's bid (offer) increases by an amount greater than or equal to a percentage (never to exceed 20%) of the size associated with previously disseminated bid (offer). Such percentage, which shall never exceed 20%, shall be determined on an issue-by-issue basis by the Exchange and announced to membership via an Options Trader Alert.

Section 27. Limitation of Liability

(a) The Exchange, its Directors, officers, committee members, employees, contractors or agents shall not be liable to Members nor any persons associated with Members for any loss, expense, damages or claims arising out of the use of the facilities, systems or equipment afforded by the Exchange, nor any interruption in or failure or unavailability of any such facilities, systems or equipment, whether or not such loss, expense, damages or claims result or are alleged to result from negligence or other unintentional errors or omissions on the part of the Exchange, its Directors, officers, committee members, employees, contractors, agents or other persons acting on its behalf, or from systems failure, or from any other cause within or outside the control of the Exchange. Without limiting the generality of the foregoing, the Exchange shall have no liability to any person for any loss, expense, damages or claims which result from any error, omission or delay in calculating or disseminating any current or closing index value or any reports of transactions in or quotations for options or other securities, including underlying securities.

(b) The Exchange makes no warranty, express or implied, as to results to be obtained by any person or entity from the use of any data transmitted or disseminated by or on behalf of the Exchange or any reporting authority designated by the Exchange, including but not limited to, reports of transactions in or quotations for securities traded on the Exchange or underlying securities, or reports of interest rate measures or index values or related data, and the Exchange makes no express or implied warranties of merchantability or fitness for a particular purpose or use with respect to any such data.

(c) No Member or person associated with a Member shall institute a lawsuit or other legal proceeding against the Exchange or any Director, officer, employee, contractor, agent or other official of the Exchange or any subsidiary of the Exchange, for actions taken or omitted to be taken in connection with the official business of the Exchange or any subsidiary, except to the extent such actions or omissions constitute violations of the federal securities laws for which a private right of action exists. This provision shall not apply to appeals of disciplinary actions or other actions by the Exchange as provided for in the Rules.

(d) Notwithstanding paragraph (a) above, the Exchange, subject to the express limits set forth below, may compensate users of the Exchange for losses directly resulting from the actual failure of the System, or any other Exchange quotation, transaction reporting, execution, order routing or other systems or facility to correctly process an order, quote, message, or other data, provided that the Exchange has acknowledged receipt of the order, quote, message, or data.

(1) For the aggregate of all claims made by all market participants related to the use of the Exchange during a single calendar month, the Exchange's payments shall not exceed the larger of \$500,000, or the amount of the recovery obtained by the Exchange under any applicable insurance policy.

(2) In the event that all of the claims arising out of the use of the Exchange cannot be fully satisfied because in the aggregate they exceed the limitations provided for in this Rule, then the maximum permitted amount will be proportionally allocated among all such claims arising during a single calendar month.

(3) All claims for compensation pursuant to this Rule shall be in writing and must be submitted no later than 12:00 P.M. ET on the next business day following the day on which the use of the Exchange gave rise to such claims. Nothing in this Rule shall obligate the Exchange to seek recovery under any applicable insurance policy.

Options 4 Options Listing Rules

The rules contained in Nasdaq ISE Options 4, as such rules may be in effect from time to time (the "Options 4 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 4, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 4 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 4 Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 4 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 4 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Market Maker" in the Options 4 Rules shall be read to refer to the Nasdaq GEMX Market Maker; and the defined term "Member" in the Options 4 Rules shall be read to refer to the Nasdaq GEMX Member.

Options 4A Options Index Rules

The rules contained in Nasdaq ISE Options 4A, as such rules may be in effect from time to time (the "Options 4A Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 4A, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 4A Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 4A Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 4A Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 4A Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Exchange Official" in the Options 4A Rules shall be read to refer to the Nasdaq GEMX Exchange Official; and the defined term "Member" in the Options 4A Rules shall be read to refer to the Nasdaq GEMX Member.

Options 5 [Options Trade Administration] Order Protections and Locked and Crossed Markets

The rules contained in Nasdaq ISE Options 5, as such rules may be in effect from time to time (the "Options 5 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 5, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 5 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 5 Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 5 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 5 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Bid" in the Options 5 Rules shall be read to refer to the Nasdaq GEMX Bid; and the defined term "Member" in the Options 5 Rules shall be read to refer to the Nasdaq GEMX Member.

Options 6 [Order Protection and Locked and Crossed Markets]Options Trade Administration

Section 1. Authorization to Give Up

(a) General. For each transaction in which a Member participates, the Member may indicate, at the time of the trade or through post-trade allocation, any Options Clearing Corporation ("OCC") number of a Clearing Member through which a transaction will be cleared ("Give Up"), provided the Clearing Member has not elected to Opt In, as defined and described in paragraph (b) below, and restrict one or more of its OCC number(s) ("Restricted OCC Number"). A Member may Give Up a Restricted OCC Number provided the Member has written authorization as described in paragraph (b)(ii) below ("Authorized Member").

(b) Opt In. Clearing Members may request the Exchange restrict one or more of their OCC clearing numbers ("Opt In") as described in subparagraph (i) below. If a Clearing Member Opts In, the Exchange will require written authorization from the Clearing Member permitting a Member to Give Up a Clearing Member's Restricted OCC Number. An Opt In would remain in effect until the Clearing Member terminates the Opt In as described in subparagraph (iii) below. If a Clearing Member does not Opt In, that Clearing Member's OCC number would be subject to Give Up by any Member.

(i) Clearing Member Process to Opt In. A Clearing Member may Opt In by sending a completed "Clearing Member Restriction Form" listing all Restricted OCC Numbers and Authorized Members. A Clearing Member may elect to restrict one or more OCC clearing numbers that are registered in its name at OCC. The Clearing Member would be required to submit the Clearing Member Restriction Form to the Exchange's Membership Department as described on the form. Once submitted, the Exchange requires ninety days before a Restricted OCC Number is effective within the System.

(ii) Member Give Up Process for Restricted OCC Numbers. A Member desiring to Give Up a Restricted OCC Number must become an Authorized Member. The Clearing Member will be required to authorize a Member as described in subparagraph (i) or (iii), unless the Restricted OCC Number is already subject to a Letter of Guarantee that the Member is a party to, as set forth in paragraph (d) below.

(iii) Amendments to Authorized Members or Restricted OCC Numbers. A Clearing Member may amend its Authorized Members or Restricted OCC Numbers by submitting a new Clearing Member Restriction Form to the Exchange's Membership Department indicating the amendment as described on the form. Once a Restricted OCC Number is effective within the System pursuant to paragraph (i) above, the Exchange may permit the Clearing Member to authorize, or remove authorization for, a Member to Give Up the Restricted OCC Number intra-day only in unusual circumstances, and on the next business day in all regular circumstances. The Exchange will promptly notify Members if they are no longer authorized to Give Up a Clearing Member's Restricted OCC Number. If a Clearing Member removes a Restricted OCC Number, any Member may Give Up that OCC clearing number once the removal has become effective on or before the next business day.

(c) System. The System will not allow an unauthorized Member to Give Up a Restricted OCC Number. If an unauthorized Give Up with a Restricted OCC Number is submitted to the System, the System will process that transaction using the Member's default OCC clearing number.

(d) Letter of Guarantee. A clearing arrangement subject to a Letter of Guarantee would immediately permit the Give Up of a Restricted OCC Number by the Member that is party to the arrangement.

(e) An intentional misuse of this Rule is impermissible, and may be treated as a violation of Options 9, Sections 1 and 2.

Section 2. Submission of Orders and Clearance of Transactions

(a) Order Identification. When entering orders on the Exchange, each Member shall submit trade information in such form as may be prescribed by the Exchange in order to allow the Exchange to properly prioritize and match orders and quotations pursuant to Options 3, Section 10 and report resulting transactions to the Clearing Corporation.

(b) All transactions made on the Exchange shall be submitted for clearance to the Clearing Corporation, and all such transactions shall be subject to the Rules of the Clearing Corporation. Every Clearing Member shall be responsible for the clearance of the Exchange Transactions of such Clearing Member and of each Member who gives up such Clearing Member's name pursuant to a written Letter of Guarantee or written authorization to become an Authorized Member under Options 6, Section 1, which authorization must be submitted to the Exchange.

(c) On each business day at or prior to such time as may be prescribed by the Clearing Corporation, the Exchange shall furnish the Clearing Corporation a report of each Clearing Member's matched trades.

Section 3. Trade Reporting and Comparison

The details of each trade executed on the Exchange are automatically reported at the time of execution. Members need not separately report their transactions for trade comparison purposes.

Section 4. Letters of Guarantee

(a) Required of Each Market Maker. No Market Maker shall make any transactions on the Exchange unless a Letter of Guarantee has been issued for such Member by a Clearing Member and filed with the Exchange, and unless such Letter of Guarantee has not been revoked pursuant to paragraph (c) of this Rule.

(b) Terms of Letter of Guarantee. A Letter of Guarantee shall provide that the issuing Clearing Member accepts financial responsibilities for all Exchange Transactions made by the guaranteed Member.

(c) Revocation of Letter of Guarantee. A Letter of Guarantee filed with the Exchange shall remain in effect until a written notice of revocation has been filed with the Exchange. A revocation shall in no way relieve a Clearing Member of responsibility for transactions guaranteed prior to the effective date of such revocation.

Options 6A Closing Transactions

The rules contained in Nasdaq ISE Options 6A, as such rules may be in effect from time to time (the "Options 6A Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 6A, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 6A Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 6A Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 6A Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 6A Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Clearing Member" in the Options 6A Rules shall be read to refer to the Nasdaq GEMX Clearing Member; and the defined term "Member" in the Options 6A Rules shall be read to refer to the Nasdaq GEMX Member.

Options 6B Exercises and Deliveries

The rules contained in Nasdaq ISE Options 6B, as such rules may be in effect from time to time (the "Options 6B Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 6B, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 6B Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 6B Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 6B Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 6B Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Clearing Member" in the Options 6B Rules shall be read to refer to the Nasdaq GEMX Clearing Member; and the defined term "Member" in the Options 6B Rules shall be read to refer to the Nasdaq GEMX Member.

Options 6C Margins

The rules contained in Nasdaq ISE Options 6C, as such rules may be in effect from time to time (the "Options 6C Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 6C, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 6C Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 6C Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 6C Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 6C Rules shall be read to refer to the Nasdaq GEMX Rule; and the defined term "Member" in the Options 6C Rules shall be read to refer to the Nasdaq GEMX Member.

Options 6D Net Capital Requirements

The rules contained in Nasdaq ISE Options 6D, as such rules may be in effect from time to time (the "Options 6D Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 6D, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 6D Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 6D Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 6D Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 6D Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "President" in the Options 6D Rules shall be read to refer to the Nasdaq GEMX President; and the defined term "Member" in the Options 6D Rules shall be read to refer to the Nasdaq GEMX Member.

Options 6E Records, Reports and Audits

The rules contained in Nasdaq ISE Options 6E, as such rules may be in effect from time to time (the "Options 6E Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 6E, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 6E Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 6E Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 6E Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 6E Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Market Maker" in the Options 6E Rules shall be read to refer to the Nasdaq GEMX Market Maker; and the defined term "Member" in the Options 6E Rules shall be read to refer to the Nasdaq GEMX Member.

Options 7 Pricing Schedule**Section 1. General Provisions**

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A "**Priority Customer**" is a person or entity that is not a broker/dealer in securities, and does not place more than 390 orders in listed options per day on average during a calendar month for its own beneficial account(s), as defined in Nasdaq GEMX Options 1, Section 1(a)(35)[Rule 100(a)(37A)]. Unless otherwise noted, when used in this Pricing Schedule the term "Priority Customer" includes "Retail" as defined below.

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A "**Flash Order**" is an order that is exposed at the National Best Bid or Offer by the Exchange to all Members for execution, as provided under Supplementary Material .02 to Nasdaq GEMX Options 5, Section 2[Rule 1901]. For all Flash Orders, the Exchange will charge the applicable taker fee and for responses that trade against a Flash Order, the Exchange will provide the applicable maker rebate.

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Section 2. Collection of Exchange Fees and Other Claims

(a) Each Member, and all applicants for registration as such shall be required to provide a clearing account number for an account at the National Securities Clearing Corporation ("NSCC") for purposes of permitting the Exchange to debit any undisputed or final fees, fines, charges and/or other monetary sanctions or other monies due and owing to the Exchange or other charges related to General 2, Section 2[Rules 205 and 206]; provided, however, that the fees set forth in Section 7 (Market Data) of the Exchange's Pricing Schedule shall be excluded from this Rule. If a Member disputes an invoice, the Exchange will not include the disputed amount in the debit if the Member has disputed the amount in writing to the Exchange's designated staff by the 15th of the month, or the following business day if the 15th is not a business day, and the amount in dispute is at least \$10,000 or greater.

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Section 5. Legal & Regulatory

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B. FINRA Web CRD Fees

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\$60-S501. Assessed to each individual who is solely registered as a Proprietary Trader required to complete the Regulatory Element of the Continuing Education Requirements pursuant to Nasdaq GEMX Rule [604]1240.

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Section 8. Sales Value Fee

The Sales Value Fee is assessed by the Exchange to each Member for sales on the Exchange with respect to which the Exchange is obligated to pay a fee to the Commission under Section 31 of the Exchange Act. To the extent that there may be any excess monies collected under this Rule, the Exchange may retain those monies to help fund its general operating expenses. The sales transactions to which the fee applies are sales of options (other than options on a security index) and the sales of securities resulting from the exercise of physical-delivery options. The fee is collected indirectly from Members through their clearing firms by the Clearing Corporation on behalf of Nasdaq GEMX with respect to options sales and options exercises. The Sales Value Fee is equal to (a) the Section 31 fee rate multiplied by (b) the Member's aggregate dollar amount of covered sales resulting from options transactions occurring on the Exchange during any computational period.

Options 8 Reserved

Options 9 [Reserved]Business Conduct

The rules contained in Nasdaq ISE Options 9, as such rules may be in effect from time to time (the "Options 9 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 9, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 9 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 9 Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 9 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 9 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Chapter" in the Options 9 Rules shall be read to refer to the Nasdaq GEMX Chapter; and the defined term "Member" in the Options 9 Rules shall be read to refer to the Nasdaq GEMX Member. For the avoidance of doubt, the reference to "lessor" in Options 9, Section 9 shall not apply to Nasdaq GEMX, as Nasdaq GEMX memberships cannot be leased under Nasdaq GEMX Rules.

Options 10 Doing Business with the Public

The rules contained in Nasdaq ISE Options 10, as such rules may be in effect from time to time (the "Options 10 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 10, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 10 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 10 Rules shall be read to refer to the Nasdaq GEMX-related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 10 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 10 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Options Principal" in the Options 10 Rules shall be read to refer to the Nasdaq GEMX Options Principal; and the defined term "Member" in the Options 10 Rules shall be read to refer to the Nasdaq GEMX Member.

Options 11 Minor Rule Plan Violations

The rules contained in Nasdaq ISE Options 11, as such rules may be in effect from time to time (the "Options 11 Rules"), are hereby incorporated by reference into this Nasdaq GEMX Options 11, and are thus Nasdaq GEMX Rules and thereby applicable to Nasdaq GEMX Members. Nasdaq GEMX Members shall comply with the Options 11 Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in the Options 11 Rules shall be read to refer to the Nasdaq GEMX related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Options 11 Rules shall be read to refer to the Nasdaq GEMX Exchange; the defined term "Rule" in the Options 11 Rules shall be read to refer to the Nasdaq GEMX Rule; the defined term "Affiliate" in the Options 11 Rules shall be read to refer to the Nasdaq GEMX Affiliate; and the defined term "Member" in the Options 11 Rules shall be read to refer to the Nasdaq GEMX Member.