EXHIBIT 5

(additions are <u>underlined</u>; deletions are [bracketed])

* * * * *

Rules of Cboe EDGX Exchange, Inc.

* * * * *

Rule 21.1. Definitions

The following definitions apply to Chapter XXI for the trading of options listed on EDGX Options.

- (a) (c) No change.
- (d) The term "Order Type" shall mean the unique processing prescribed for designated orders, subject to the restrictions set forth in paragraph (j) below with respect to orders and bulk messages submitted through bulk ports, that are eligible for entry into the System. Unless otherwise specified in the Rules or the context indicates otherwise, the Exchange determines which of the following Order Types are available on a class, system, or trading session basis. Rule 21.20 sets forth the Order Types the Exchange may make available for complex orders.
 - (1) (9) No change.
 - (10) A "Qualified Contingent Cross Order" or "QCC Order" is comprised of an originating order to buy or sell at least 1,000 standard option contracts (or 10,000 mini-option contracts) that is identified as being part of a qualified contingent trade, as that term is defined in subparagraph (A) below, coupled with a contra-side order or orders totaling an equal number of contracts. If a QCC Order has more than one option leg (a "Complex QCC Order"), each option leg must have at least 1,000 standard option contracts (or 10,000 mini-option contracts). See Rule 21.20 for a definition of a QCC with Stock Order. For purposes of this order type:
 - (A) (B) No change.
 - (C) Complex QCC Orders may execute automatically on entry without exposure if: (i) [each option leg executes at a price that complies with Rule 21.20(c)(1)(C), provided that] no option leg executes at a price of zero or at the same price as a Priority Customer Order in the Simple Book; (ii) each option leg executes at a price at or between the NBBO for the applicable series; and (iii) the execution price is better than the price of any complex order resting in the COB, unless the Complex QCC Order is a Priority Customer Order and the resting complex order is a non-Priority Customer Order, in which case the execution price may be the same as or better than the price of the resting complex order.
 - (D) No change.

(E) QCC Orders with one option leg may only be entered in the standard increments applicable to the options class under Rule 21.5, and Complex QCC Orders may be entered in the increments applicable to complex orders set forth in Rule $21.20([c]\underline{f})(1)$.

* * * * *

Rule 21.17. Additional Price Protection Mechanisms and Risk Controls

The System's acceptance and execution of orders, quotes, and bulk messages, as applicable, are subject to the price protection mechanisms and risk controls in Rule 21.16, this Rule 21.17. [(related to all orders other than complex orders), Rule 21.20 (related to complex orders)] and as otherwise set forth in the Rules. [All numeric values established by the Exchange pursuant to this Rule will be maintained by the Exchange in publicly available specifications and/or published in a Regulatory Circular.] Unless otherwise specified the price protections set forth in this Rule, including the numeric values established by the Exchange, may not be disabled or adjusted. The Exchange may share any of a User's risk settings with the Clearing Member that clears transactions on behalf of the User.

(a) Simple Orders.

- ([a]1) Market Order NBBO Width Protection. If a User submits a Market Order to the System when the NBBO width is greater than x% of the midpoint of the NBBO, subject to minimum and maximum dollar values established by the Exchange, the System will reject or cancel back to the User the Market Order. The Exchange will establish "x" and the minimum and maximum values on a class-by-class basis. This protection does not apply to bulk messages.
- ([b]2) Limit Order Fat Finger Check. If a User submits a buy (sell) limit order to the System with a price that is more than a buffer amount established by the Exchange above (below) the NBO (NBB), or, in the case of an order received prior to the conclusion of the RTH opening auction process, (i) the last disseminated NBBO on that trading day, or (ii) the midpoint of the prior trading day's closing NBBO, if no NBBO has been disseminated on that trading day, the System will reject or cancel back to the User the limit order. This check does not apply to bulk messages.
- ([c]3) Buy Order Put Check. If a User enters a buy limit order for a put with a price that is higher than or equal to the strike price of the option, the System will reject or cancel back to the User the limit order. If a User enters a buy Market Order for a put that would execute at (or the remaining portion would execute at) a price higher than or equal to the strike price of the option, the System will reject or cancel back to the User the Market Order (or remaining portion). This check does not apply to adjusted options or bulk messages.

([d]4) Drill-Through Price Protection.

([1]A) If a buy (sell) order enters the EDGX Options Book at the conclusion of the opening auction process, the System executes the order up to a buffer amount

(established by the Exchange) above (below) the offer (bid) limit of the Opening Collar (the "Drill-Through Price").

([2]B) If a buy (sell) order would execute or post to the EDGX Options Book at the time of order entry, the System executes the order up to a buffer amount (established by the Exchange) above (below) the NBO (NBB) that existed at the time of order entry (the "Drill-Through Price").

If a buy (sell) order would execute or post to the EDGX Options Book at a price higher (lower) than the Drill-Through Price, the System will instead post the order to the EDGX Options Book at the Drill-Through Price, unless the terms of the order instruct otherwise. Any order (or unexecuted portion thereof) will rest in the EDGX Options Book (based on the time at which it enters the book for priority purposes) for a time period in milliseconds that may not exceed three seconds with a price equal to the Drill-Through Price. If the order (or unexecuted portion thereof) does not execute during that time period, the System will cancel it. This protection does not apply to bulk messages.

- ([e]5) Market Orders in No-Bid (Offer) Series.
 - ([1]A) If the System receives a sell Market Order in a series after it is open for trading with an NBB of zero:
 - ($[A]\underline{i}$) if the NBO in the series is less than or equal to \$0.50, then the System converts the Market Order to a Limit Order with a limit price equal to the minimum trading increment applicable to the series and enters the order into the EDGX Options Book with a timestamp based on the time it enters the Book. If the order has a Time-in-Force of GTC or GTD that expires on a subsequent day, the order remains on the Book as a Limit Order until it executes, expires, or the User cancels it.
 - ([B]<u>ii</u>) if the NBO in the series is greater than \$0.50, then the System cancels or rejects the market order.
 - ([2]B) If the System receives a buy market order in a series after it is open for trading with an NBO of zero, the System cancels or rejects the market order.
 - ([3]C) This protection does not apply to bulk messages.
- ([f]6) Bulk Message Fat Finger Check. The System cancels or rejects any bulk message bid (offer) above (below) the NBO (NBB) by more than a specified amount determined by the Exchange. This check does not apply to bulk messages submitted prior to the conclusion of the Opening Process or when no NBBO is available.
- ([g]7) Rejection of Bulk Message Updates. If, pursuant to the Rules, the System cancels or rejects a bulk message bid (offer) to update a resting bulk message bid (offer) submitted for the same EFID and bulk port, the System also cancels the resting bulk message bid (offer).

(b) Complex Orders.

- (1) *Definitions*. For purposes of this paragraph (b):
 - (A) Vertical Spread. A "vertical" spread is a two-legged complex order with one leg to buy a number of calls (puts) and one leg to sell the same number of calls (puts) with the same expiration date but different exercise prices.
 - (B) Butterfly Spread. A "butterfly" spread is a three-legged complex order with two legs to buy (sell) the same number of calls (puts) and one leg to sell (buy) twice as many calls (puts), all with the same expiration date but different exercise prices, and the exercise price of the middle leg is between the exercise prices of the other legs. If the exercise price of the middle leg is halfway between the exercise prices of the other legs, it is a "true" butterfly; otherwise, it is a "skewed" butterfly.
 - (C) Box Spread. A "box" spread is a four-legged complex order with one leg to buy calls and one leg to sell puts with one strike price, and one leg to sell calls and one leg to buy puts with another strike price, all of which have the same expiration date and are for the same number of contracts.
- (2) Credit-to-Debit Parameters. The System cancels or rejects a market order that would execute at a net debit price after receiving a partial execution at a net credit price.
- (3) Debit/Credit Price Reasonability Checks.
 - (A) If the Exchange applies this check to a class, the System cancels or rejects a complex order (or unexecuted portion) that is a limit order for a debit strategy with a net credit price that exceeds a pre-set buffer, a limit order (or unexecuted portion) for a credit strategy with a net debit price that exceeds a pre-set buffer, or a market order (or unexecuted portion) for a credit strategy that would execute at a net debit price that exceeds an Exchange-determined pre-set buffer.
 - (B) The System defines a complex order as a debit or credit as follows:
 - (i) a call butterfly spread for which the middle leg is to sell (buy) and twice the exercise price of that leg is greater than or equal to the sum of the exercise prices of the buy (sell) legs is a debit (credit);
 - (ii) a put butterfly spread for which the middle leg is to sell (buy) and twice the exercise price of that leg is less than or equal to the sum of the exercise prices of the buy (sell) legs is a debit (credit);
 - (iii) an order for which all pairs and loners are debits (credits) is a debit (credit). For purposes of this check, a "pair" is a pair of legs in an order for which both legs are calls or both legs are puts, one leg is a buy and one leg is a sell, and the legs have the same expiration date but different exercise prices or the same exercise price but different expiration dates. A "loner" is any leg in an order that the System cannot pair with another leg in the order; and

- (iv) if the stock component of a stock-option order is to buy (sell), the stock-option order is a debit (credit).
 - (a) The System first pairs legs to the extent possible within each expiration date, pairing one leg with the leg that has the next highest exercise price.
 - (b) The System then pairs legs to the extent possible with the same exercise prices across expiration dates, pairing one leg with the leg that has the next nearest expiration date.
 - (c) A pair of calls is a credit (debit) if the exercise price of the buy (sell) leg is higher than the exercise price of the sell (buy) leg (if the pair has the same expiration date) or if the expiration date of the sell (buy) leg is farther than the expiration date of the buy (sell) leg (if the pair has the same exercise price).
 - (d) A pair of puts is a credit (debit) if the exercise price of the sell (buy) leg is higher than the exercise price of the buy (sell) leg (if the pair has the same expiration date) or if the expiration date of the sell (buy) leg is farther than the expiration date of the buy (sell) leg (if the pair has the same exercise price).
 - (e) A loner to buy (sell) is a debit (credit).
- (C) The System does not apply this check to an order it cannot define as a debit or credit.
- (D) This check applies to auction responses in the same manner as it does to orders.
- (4) Buy Strategy Parameters. The System cancels or rejects a limit complex order where all the components of the strategy are to buy and the order has (A) a price of zero, (B) a net credit price that exceeds a pre-set buffer (which the Exchange determines), or (C) a net debit price that is less than the number of individual legs in the strategy (or applicable ratio) multiplied by \$0.01.
- (5) Maximum Value Acceptable Price Range. The System cancels or rejects an order that is a vertical, true butterfly, or box spread and is a limit order with, or a market order that would execute at, a price that is outside of an acceptable price range, set by the minimum and maximum possible value of the spread, subject to an additional buffer amount (which the Exchange determines).
 - (A) The maximum possible value of a vertical, true butterfly, and box spread is the difference between the exercise prices of (1) the two legs; (2) the middle leg and the legs on either side; and (3) each pair of legs, respectively.
 - (B) The minimum possible value of the spread is zero.

- (C) This check applies to auction responses in the same manner as it does to orders.
- (6) *Drill-Through Protection*. If a User enters a buy (sell) complex order into the System, the System executes the order pursuant to Rule 21.20(e) up to a buffer amount above (below) the SNBO (SNBB) that existed at the time of order entry (the "drill-through price"), or initiates a COA at the drill-through price if the order would initiate a COA pursuant to Rule 21.20(d). The Exchange determines a default buffer amount; however, a User may establish a higher or lower amount than the Exchange default amount.
 - (A) If a buy (sell) complex order (or unexecuted portion) would execute or enter the COB at a price higher (lower) than the drill-through price, the System enters the order in the COB at the drill-through price (receiving a timestamp based on the time it enters the COB for priority purposes), unless the terms of the order instruct otherwise.
 - (B) Any unexecuted order (or unexecuted portion) with a displayed price equal to the drill-through price (unless the drill-through price equals the order's limit price) will rest in the COB for a time period in milliseconds (the Exchange determines the time period, which may not exceed three seconds). If the order (or unexecuted portion) does not execute during that time period, the System cancels or rejects it. However, if the SBBO changes prior to the end of the time period but the complex order cannot Leg, and the new SBO (SBB) crosses the drill-through price, the System changes the displayed price of the complex order to the new SBO (SBB) minus (plus) \$0.01, and the order is not cancelled at the end of the time period.
- (7) Limit Order Fat Finger Check. If the Exchange applies this check to a class, if a User submits a buy (sell) complex limit order to the System with a price that is more than a buffer amount above (below) the SNBO (SNBB), the System cancels or rejects the complex order. The Exchange determines a default buffer amount; however, a User may establish a higher or lower amount than the Exchange default. The check does not apply to complex orders prior to the conclusion of the Opening Process or when no SNBBO is available.
- (8) Maximum Contract Size. If the Exchange applies this check to a class, the System cancels or rejects an incoming order or quote with a size that exceeds the maximum contract size. The Exchanges designates a default maximum size; however, a User may establish a higher or lower amount than the Exchange default. The size of a complex order for purposes of this check is the size of the largest leg of the order.
- (9) Buy-Write/Married Put Check. If the Exchange applies this check to a class, the System cancels or rejects a stock-option order to buy the stock leg and sell a call (buy a put) for the option leg with a price that is more than the strike price of the call (put) plus (minus) a buffer amount (which the Exchange determines on a class-by-class basis).

* * * * *

Rule 21.20. Complex Orders

Trading of complex orders is subject to all other Rules applicable to the trading of orders, unless otherwise provided in this Rule 21.20.

(a) *Definitions*. For purposes of this Rule 21.20, the following terms [will] have the meanings [specified in this paragraph (a)]below. A term defined elsewhere in the Exchange Rules [will have]has the same meaning with respect to this Rule 21.20, unless otherwise defined below.

[(1)] **ABBO**[.]

The term "ABBO" means the best bid(s) or offer(s) disseminated by other Eligible Exchanges (as defined in Rule 27.1(a)(7)) and calculated by the Exchange based on market information received by the Exchange from OPRA.

[(2)] **BBO**[.]

The term "BBO" means the best bid or offer [on the Simple Book (as defined below) on]disseminated by the Exchange.

Complex Order

A "complex order" is any order involving the concurrent purchase and/or sale of two or more different series in the same class (the "legs" or "components" of the complex order), for the same account, in a ratio that is equal to or greater than one-to-three (.333) and less than or equal to three-to-one (3.00) and for the purposes of executing a particular investment strategy. Only those complex orders with no more than the applicable number of legs (determined by the Exchange) are eligible for processing. The term "complex order" includes all types of complex orders that are available on the Exchange pursuant to paragraph (b) below, unless the Rules specify otherwise.

[(3)] Complex Order Auction [or]and COA[.]

[A]<u>The terms "Complex Order Auction" and</u> "COA" [is]<u>mean</u> an auction of a complex order as set forth in [sub]paragraph (d) below.

[(4) COA-Eligible Order. A "COA-eligible order" is a complex order designated to be placed into a Complex Order Auction upon receipt that meets the requirements of subparagraph (d)(1) below.

(5) Complex Order.

A "complex order" is any order involving the concurrent purchase and/or sale of two or more different options in the same underlying security (the "legs" or "components" of the complex order), for the same account, in a ratio that is equal to or greater than one-to-three (.333) and less than or equal to three-to-one (3.00) and for the purposes of executing a particular investment strategy. Only those complex orders in the classes designated by the Exchange and communicated to Members with no more than the applicable number of legs, as determined by the Exchange on a class-by-class basis and communicated to Members, are eligible for processing. The Exchange will communicate

such information to Members by making publicly available specifications and/or publishing a Regulatory Circular.]

[(6)] Complex Order Book [or]and COB[.]

The terms "Complex Order Book" and "COB" [is]mean the Exchange's electronic book of complex orders [and] used for all trading sessions.

[(7)] Complex Strategy[.]

The term "complex strategy" means a particular combination of components and their ratios to one another. New complex strategies can be created as the result of the receipt of a complex instrument creation request or complex order for a complex strategy that is not currently in the System. The Exchange may limit the number of new complex strategies that may be in the System at a particular time[and will communicate any such limitation to Members via specifications and/or Regulatory Circular].

Legging

The term "Legging" is defined in paragraph (g) below.

[(8)] **NBBO**[.]

The term "NBBO" means the national best bid or offer as calculated by the Exchange based on market information received by the Exchange from OPRA.

[(9)] **Regular Trading**[.]

The term "regular trading" means trading of complex orders that occurs during a trading session other than: ([i]1) at the opening of the COB or re-opening of the COB for trading following a halt (described in paragraph (c) below)[;] or ([ii]2) during the COA process ([as] described in paragraph (d) below[of this Rule]).

[(10)] Simple Book[.]

The term "Simple Book" [is]means the Exchange's regular electronic book of orders.

[(11)] Synthetic Best Bid or Offer [or] and SBBO[.]

The <u>terms "Synthetic Best Bid or Offer" and "SBBO" mean the best bid and offer on the Exchange for a complex strategy calculated using:</u>

(1) for complex orders, the BBO for each component (or the NBBO for a component if the BBO for that component is not available) [is calculated using the best displayed price for each component] of a complex strategy from the Simple Book, and

(2) for stock-option orders, the BBO for each option component (or the NBBO for a component if the BBO for that component is not available) and the NBBO of the stock component of a complex strategy.

[(12)] Synthetic National Best Bid or Offer [or]and SNBBO[.]

The terms "Synthetic National Best Bid or Offer" and "SNBBO" [is] mean the national best bid and offer for a complex strategy calculated using:

- (1) for complex orders, [calculated using] the NBBO for each component of a complex strategy [to establish the best net bid and offer for a complex strategy], and
- (2) for stock-option orders, the NBBO for each option component and the NBBO of the stock component of a complex strategy.
- (b) [Availability of] *Types of Complex Orders*. Complex orders are available in all classes listed for trading on the Exchange. The Exchange [will] determines [and communicate to Members via specifications and/or a Regulatory Circular listing when the complex order types, among the complex order types set forth in this Rule, are available for use on the Exchange. The complex order types that may be submitted are limit orders and market orders, and orders with a] which Times-[jin[]-Force of DAY, GTC, GTD, IOC, [DAY, GTC,] or OPG as such terms are defined in Rule 21.1(f). [Members]Users may not submit complex orders through bulk ports. The following complex orders will also be accepted by the Exchange: Jare available for complex orders (including for eligibility to enter the COB and initiate a COA). The Exchange determines which Capacities (i.e., non-broker-dealer customers, broker-dealers that are not Market-Makers on an options exchange, or Market-Makers on an options exchange) are eligible for COA and for entry onto the COB. Complex orders may be market or limit orders. Users may designate complex orders as Attributable or Non-Attributable. The System also accepts the following instructions for complex orders:

All Sessions Complex Order

An "All Sessions" complex order is a complex order a User designates as eligible to trade during both GTH and RTH. An unexecuted All Sessions complex order on the COB at the end of a GTH trading session remains on the COB and becomes eligible for execution during the RTH COB Opening Process or trading session on that same trading day, subject to a User's instructions.

AON Complex Order

An "AON complex order" is a complex order that is to be executed in its entirety or not at all. An AON complex order may only execute following a COA, and is not eligible to rest in the COB.

Book Only Complex Order

A "Book Only complex order" is a complex order the System ranks and executes pursuant to this Rule 21.20 or cancels or rejects, as applicable (in accordance with the User's instructions).

COA-Eligible and Do-Not-COA Order

Upon receipt of an IOC complex order, the System does not initiate a COA unless a User marked the order to initiate a COA, in which case the System cancels any unexecuted portion at the end of the COA. A Post Only complex order with any Time-in-Force does not initiate a COA, and if a User marks a Post Only complex order to initiate a COA, the System cancels that order. An incoming AON complex order initiates a COA, and if a User marks an AON complex order to not initiate a COA, or an AON complex order does not satisfy the COA eligibility criteria in subparagraph (d)(1) below, the System cancels the AON complex order. Upon receipt of a complex order with any other Time-in-Force (except OPG), the System initiates a COA unless a User marked the order to not initiate a COA. A buy (sell) complex order with User instructions to (or which default to) initiate a COA that is priced (A) equal to or lower (higher) than the SBO (SBB) (provided that if any of the bids or offers on the Simple Book that comprise the SBO (SBB) is represented by a Priority Customer Order, the order must be priced at least \$0.01 lower (higher) than the SBO (SBB)) and (B) lower (higher) than the price of sell (buy) complex orders resting at the top of the COB is a "COA-eligible order." A complex order with User instructions not to (or which default to not) initiate a COA (including a Post Only complex order) or that does not satisfy the COA-eligibility requirements in this paragraph (b) is a "do-not-COA order."

[(1)] Complex Only Order[s.]

A "Complex Only order" is a Day or IOC complex order a Market Maker may designate [orders]to execute only against complex orders in[to only check against] the COB and not Leg into the Simple Book. [Only a complex order with a Time in Force of DAY or IOC may be designated as Complex Only.] Unless designated as Complex Only, and for all other Times[]-in[]-Force and complex order origin codes, a complex order [will check]may execute against [both]complex orders in the COB and may Leg into the Simple Book.

[(2) COA-Eligible and Do Not COA Orders. Complex orders that are marked as IOC will, by default, not initiate a COA upon arrival, but a Member that submits an order marked IOC may elect to opt-in to initiating a COA and any quantity of the IOC order not executed will be cancelled at the end of the COA. Complex Orders that are marked Post Only with any Time in Force will, by default, not initiate a COA, and if a Member marks a Post Only complex order to initiate a COA, that order will be cancelled. An incoming AON complex order will initiate a COA, and if a Member marks an AON complex order to not initiate a COA, or an AON complex order does not satisfy the COA eligibility criteria in subparagraph (d)(1) below, the System cancels the AON complex order. All other Times in Force will by default initiate a COA, but a Member may elect to opt-out of initiating a COA. Orders with instructions to (or which default to) initiate a COA are referred to as COA-eligible orders, subject to the additional eligibility requirements set forth in this rule, while

orders with instructions not to (or which default not to) initiate a COA, including orders that are marked Post Only, are referred to as do-not-COA orders.]

[(3)] Complex Orders with [Match Trade Prevention]MTP Modifiers[.]

[The System will support, when trading against other complex orders on the COB, complex orders with] Users may apply the following MTP Modifiers [defined in Rule 21.1(g)] to complex orders: MTP Cancel Newest, MTP Cancel Oldest, and MTP Cancel Both. If a complex order would execute against a complex order in the COB with an MTP Modifier and the same Unique Identifier, the System handles the complex orders with these MTP Modifiers as described in Rule 21.1(g). [When Legging] If a complex order with an MTP Modifier would Leg into the Simple Book[, a complex order with any MTP Modifier will be cancelled if it would] and execute against any leg on the Simple Book [that includes an order] with an MTP Modifier and the same Unique Identifier, the System cancels [as] the complex order.

[(4) Book Only Complex Order. A "Book Only complex order" is a complex order the System ranks and executes pursuant to this Rule 21.20 or cancels or rejects, as applicable (in accordance with the [Member's]<u>User's</u> instructions).]

[(5)] **Post Only Complex Order**[.]

A "Post Only complex order" is a complex order the System ranks and executes pursuant to this Rule 21.20 or cancels or rejects, as applicable (in accordance with the [Member's]<u>User's</u> instructions), except the order may not remove liquidity from the COB or the Simple Book. The System cancels or rejects a Post Only market complex order unless it is subject to the drill-through protection in <u>Rule 21.17(b)</u>[Interpretation and Policy .04(f) of this Rule 21.20].

RTH Only Complex Order

An "RTH Only" complex order is a complex order a User designates as eligible to trade only during RTH or not designated as All Sessions. An unexecuted RTH Only complex order with a Time-in-Force of GTC or GTD on the COB at the end of an RTH trading session remains on the COB and becomes eligible for execution during the RTH trading session on the following trading day (but not during the GTH trading session on the following trading day), subject to a User's instructions.

[(6)] QCC with Stock Order[s.]

A "QCC with Stock Order" is a [qualified contingent cross order]QCC Order (including a Complex QCC Order), as defined in Rule 21.1(d)(10), entered with a stock component to be electronically communicated by the Exchange to a designated broker-dealer for execution on behalf of the submitting User pursuant to subparagraph [(c)(7)](1)(3) below. QCC with Stock Orders are available to Users on a voluntary basis.

- [(6) AON Complex Order. An "AON complex order" is a complex order that is to be executed in its entirety or not at all. An AON complex order may only execute following a COA, and is not eligible to rest in the COB.
- (7) All Sessions Complex Order. An "All Sessions" complex order is a complex order a User designates as eligible to trade during both GTH and RTH. An unexecuted All Sessions complex order on the COB at the end of a GTH trading session remains on the COB and becomes eligible for execution during the RTH COB Opening Process or trading session on that same trading day, subject to a User's instructions.
- (8) RTH Only Complex Order. An "RTH Only" complex order is a complex order a User designates as eligible to trade only during RTH or not designated as All Sessions. An unexecuted RTH Only complex order with a Time-in-Force of GTC or GTD on the COB at the end of an RTH trading session remains on the COB and becomes eligible for execution during the RTH trading session on the following trading day (but not during the GTH trading session on the following trading day), subject to a User's instructions.]

Stock-Option Orders

A "stock-option order" is the purchase or sale of a stated number of units of an underlying stock or a security convertible into the underlying stock ("convertible security") coupled with the purchase or sale of an option contract(s) on the opposite side of the market representing either (A) the same number of units of the underlying stock or convertible security or (B) the number of units of the underlying stock necessary to create a delta neutral position, but in no case in a ratio greater than eight-to-one (8.00), where the ratio represents the total number of units of the underlying stock or convertible security in the option leg(s) to the total number of units of the underlying stock or convertible security in the stock leg. Only those stock-option orders in the classes designated by the Exchange with no more than the applicable number of legs are eligible for processing. Stock-option orders execute in the same manner as other complex orders, except as otherwise specified in this Rule.

- (c) <u>COB Opening Process (Including After a Trading Halt)</u>. [Trading of Complex Orders. The Exchange will determine and communicate to Members via specifications and/or Regulatory Circular which complex order origin codes (i.e., non-broker-dealer customers, broker-dealers that are not Market Makers on an options exchange, and/or Market Makers on an options exchange) are eligible for entry onto the COB. Complex orders will be subject to all other Exchange Rules that pertain to orders submitted to the Exchange generally, unless otherwise provided in this Rule.
 - (1) Minimum Increments and Trade Prices.
 - (A) Bids and offers on complex orders may be expressed in \$0.01 increments, and the component(s) of a complex order may be executed in \$0.01 increments, regardless of the minimum increments otherwise applicable to individual components of the complex order.
 - (B) If any component of a complex strategy would be executed at a price that is equal to a Priority Customer bid or offer on the Simple Book, at least one other

component of the complex strategy must trade at a price that is better than the corresponding BBO.

- (C) A complex order will not be executed at a net price that would cause any component of the complex strategy to be executed:
 - (i) at a price of zero; or
 - (ii) ahead of a Priority Customer Order on the Simple Book without improving the BBO of at least one component of the complex strategy.
- (2) Execution of Complex Orders.
 - (A) Complex Order Entry and Cancellation Before COB Opening Process, Including After a Halt.] The <u>COB</u> Opening Process [for the COB will operate] occurs at the beginning of each trading session and [upon re-opening] after a <u>trading</u> halt.
- (1) [Members may submit complex orders to the Exchange as set forth in Rule 21.6(c), provided that complex orders will not participate in the Exchange's Opening Auction Process pursuant to Rule 21.7 but will instead be subject to the Opening Process for the COB as set forth in this Rule. Any complex orders designated for the Opening Process for the COB will be queued until the applicable trading session market open at which time they will be eligible to be executed in Complex Order Entry Period. The System accepts complex orders for inclusion in the COB Opening Process at the times and in the manner set forth in Rules 21.6(b) and 21.7(b), except the Queuing Period for complex orders ends when the complex strategy opens. Complex orders entered during the Queuing Period are not eligible for execution until the initiation of the COB Opening Process for the COB. The System queues a Member's open complex orders during a halt, unless the Member entered instructions to cancel its open complex orders upon a halt, until the halt has ended, at which time they will be eligible to be executed in the Opening Process for the COB]. Beginning at 7:30 a.m. and updated every five seconds thereafter until the initiation of the COB Opening Process, the Exchange disseminates indicative prices and order imbalance information [associated with the Opening Process for the COB will be disseminated by the Exchange through data feeds described in Rule 21.15 while complex orders are queued prior to the trading session market open or, in the case of a halt, prior to re-opening based on complex orders queued in the System for the COB Opening Process.
- (2) Initiation of COB Opening Process. The System initiates the COB Opening Process for a complex strategy after a number of seconds (which number the Exchange determines) after all legs of the strategy in the Simple Book are open for trading. All complex orders the System receives prior to opening a complex strategy as set forth in this subparagraph (2) (including any delay applied by the Exchange pursuant to this subparagraph (2) and subparagraph (C) below) are eligible to be matched in the COB Opening Process pursuant to this subparagraph (2) and not during the opening auction process described in Rule 21.7.
 - [(B) Opening and Re-opening of the COB for Trading. Complex orders do not participate in the Opening Process for the individual option series conducted

pursuant to Rule 21.7. The Opening Process will commence when all legs of the complex strategy are open on the Simple Book. If there are complex orders in a strategy that have been queued but none that can match, the System will open that strategy without a trade and transition such orders to the COB, subject to Legging into the Simple Book (as described in subparagraph (c)(2)(F) below).]

- [(C) Determining the Equilibrium Price.](A) COB Opening Price. If there are matching complex orders [that can match]in a complex strategy, the System [will] determines the [equilibrium]COB opening price, which is the price at which [where] the most complex orders can trade. If there are multiple price levels that would result in the same number of [strategies]complex orders executed, the System [will] chooses the price that would result in the smallest remaining imbalance as the COB opening price. If there are multiple price levels that would result in the same number of [strategies]complex orders executed and [would leave] the same "smallest" imbalance, the System [will] chooses the price [that is] closest to the [Volume Based Tie Breaker ("VBTB") as the opening price. For purposes of this subparagraph (C), the VBTB is thel midpoint of the (i) SNBBO or (ii) if there is no SNBBO available, [. If there is no valid VBTB available, the System will use the midpoint of] the highest and lowest potential opening prices as the COB opening price. If the midpoint price would result in an invalid increment, the System [will] rounds the COB opening price up to the nearest permissible increment and use that as the opening price]. If [executing at the equilibrium price] the COB opening price would require printing at the same price as a Priority Customer on any leg in the Simple Book, the System [will] adjusts the [equilibrium price]the COB opening price to a price that is better than the corresponding bid or offer in the marketplace by at least a \$0.01 increment.
- [(D) Execution and](B) Transition to Regular Trading. [When an equilibrium price is established at or within the SNBBO]After the System determines a COB opening price, the System[Exchange will] executes matching complex orders in price/time priority at the [equilibrium price]COB opening price (i.e., orders better than the [equilibrium]COB opening price are executed first in price/time priority and thereafter orders at the [equilibrium]COB opening price are executed in time priority). [Any]The System enters any remaining complex orders (or [the remaining]unexecuted portions) [thereof will be entered] into the COB, subject to the [Member's]User's instructions.
- (C) No Matching Complex Orders or No Valid COB Opening Price. If there are no matching complex orders in a complex strategy, the System opens the complex strategy without a trade. If[,] after [a configurable time period established by the Exchange]an Exchange-established period of time that may not exceed [thirty (]30[)] seconds, the System cannot match orders because (i) the System [it] cannot determine [an equilibrium]a COB opening price (i.e., all queued orders are Market Orders) or (ii) the COB opening price is outside the SNBBO[an acceptable equilibrium price (i.e., within the SNBBO that also satisfies paragraph (c)(1)(C) above)], the System [will] opens the complex strategy without a trade. In both cases,

the System enters any orders in the complex strategy in [and transition such orders to] the COB (in time priority), except it Legs any complex orders it can into the Simple Book (as described below). [All complex orders received by the Exchange prior to the Exchange opening the strategy in this fashion, including complex orders received during any delay applied by the Exchange pursuant to this paragraph (c)(2)(D), will be eligible to be matched in the Opening Process.]

- [(E) Prices for Complex Strategy Executions. Incoming complex orders will be executed by the System in accordance with the provisions set forth herein, and will not be executed at prices inferior to the SBBO or at a price that is equal to the SBBO when there is a Priority Customer Order at the best SBBO price; however, AON complex orders may only execute at prices better than the SBBO. Complex orders will never be executed at a price that is outside of the individual component prices on the Simple Book, and the net price of a complex order executed against another complex order on the COB will never be inferior to the price that would be available if the complex order legged into the Simple Book. Incoming complex orders that could not be executed because the executions would be priced (i) outside of the SBBO, or (ii) equal to the SBBO when there is a Priority Customer Order at the best SBBO price, will be cancelled if such complex orders are not eligible to be placed on the COB. Complex orders will be executed without consideration of any prices for the complex strategy that might be available on other exchanges trading the same complex strategy provided, however, that such complex order price may be subject to the Drill-Through Price Protection described in Interpretation and Policy .04(f) of this Rule.
- (F) Legging. Complex orders up to a maximum number of legs (determined by the Exchange on a class-by-class basis as either two, three, or four legs and communicated to Members via specifications and/or Regulatory Circular) may be automatically executed against bids and offers on the Simple Book for the individual legs of the complex order ("Legging"), provided the complex order can be executed in full or in a permissible ratio by such bids and offers. Complex orders with two option legs where both legs are buying or both legs are selling and both legs are calls or both legs are puts may only trade against other complex orders on the COB and will not be permitted to leg into the Simple Book. Notwithstanding the foregoing, all two leg COA-eligible Customer complex orders will be allowed to leg into the Simple Book without restriction. Complex orders with three or four option legs where all legs are buying or all legs are selling may only trade against other complex orders on the COB and will not leg into the Simple Book, regardless of whether the option leg is a call or a put. Complex orders marked Post Only and AON complex orders may not Leg into the Simple Book.
- (G) Evaluation. The System will evaluate complex orders initially once all components of the complex strategy are open as described in subparagraph (c)(2)(B)-(D) above, upon receipt as described in subparagraph (c)(5)(A) below, and continually as described in subparagraph (c)(5)(B) below. The evaluation process for complex orders is used to determine:

- (i) their eligibility to initiate, or to participate in, a COA as described in subparagraph (d)(1) below;
- (ii) their eligibility to participate in the managed interest process as described in subparagraph (c)(4) below;
- (iii) their eligibility for full or partial execution against a complex order resting on the COB or through Legging into the Simple Book (as described in subparagraph (c)(2)(F) above);
- (iv) whether the complex order should be cancelled; and
- (v) whether the complex order or any remaining portion thereof should be placed or remain on the COB.

(3) Complex Order Priority.

- (A) Notwithstanding the provisions of Rule 21.8, a complex order may be executed at a net credit or debit price against another complex order without giving priority to bids or offers established in the marketplace that are no better than the bids or offers comprising such net credit or debit; provided, however, that if any of the bids or offers established in the marketplace consist of a Priority Customer Order, at least one component of the complex strategy must trade at a price that is better than the corresponding BBO by at least a \$0.01 increment.
- (B) Complex orders will be automatically executed against bids and offers on the COB in price priority. Bids and offers at the same price on the COB will be executed in time priority. Complex orders that leg into the Simple Book (as described in subparagraph (c)(2)(F) above) will be executed in accordance with Rule 21.8.
- (4) Managed Interest Process for Complex Orders. Complex orders will not be routed outside of the Exchange regardless of prices displayed by away markets. The managed interest process is used to manage the prices at which a complex order that is not immediately executed upon entry is handled by the System, including how such an order is priced and re-priced on the COB. The managed interest process for complex orders will be based upon the SBBO.
 - (A) A complex order that is resting on the COB and is either a complex market order (as described in subparagraph (c)(6) below), or has a limit price that locks or crosses the current opposite side SBBO when the SBBO is the best price, may be subject to the managed interest process for complex orders as discussed herein. If the order is not a COA-eligible order, the System will first determine if the inbound complex order can be matched against other complex orders resting on the COB at a price that is at or inside the SBBO (provided there are no Priority Customer Orders on the Simple Book at that price). Second, the System will determine if the inbound complex order can be executed by Legging against individual orders resting on the Simple Book at the SBBO. A complex order subject to the managed interest process

will never be executed at a price that is through the individual component prices on the Simple Book. The net price of a complex order subject to the managed interest process that is executed against another complex order on the COB will never be inferior to the price that would be available if the complex order legged into the Simple Book. When the opposite side SBBO includes a Priority Customer Order, the System will book and display such booked complex order on the COB at a price (the "book and display price") that is \$0.01 away from the current opposite side SBBO. When the opposite side SBBO does not include a Priority Customer Order and is not available for execution in the ratio of such complex order, or cannot be executed through Legging with the Simple Book (as described in subparagraph (c)(2)(F) above), the System will place such complex order on the COB and display such booked complex order at a book and display price that will lock the current opposite side SBBO.

- (B) Should the SBBO change, the complex order's book and display price will continuously re-price to the new SBBO until: (i) the complex order has been executed in its entirety; (ii) if not executed, the complex order's book and display price has reached its limit price or, in the case of a complex market order, the new SBBO, subject to any applicable price protections; (iii) the complex order has been partially executed and the remainder of the order's book and display price has reached its limit price or, in the case of a complex market order, the new SBBO, subject to any applicable price protections; or (iv) the complex order or any remaining portion of the complex order is cancelled. If the Exchange receives a new complex order for the complex strategy on the opposite side of the market from the managed complex order that can be executed, the System will immediately execute the remaining contracts from the managed complex order to the extent possible at the complex order's current book and display price. If unexecuted contracts remain from the complex order on the COB, the complex order's size will be revised and disseminated to reflect the complex order's remaining contracts at its current managed book and display price.
- (C) The System will cancel or reject an incoming Post Only complex order if it locks or crosses a resting complex order in the COB or the then-current opposite side SBBO. The System cancels a resting Post Only complex limit order after evaluation pursuant to paragraph (c)(2)(G) above if the System determines the resting Post Only complex limit order locks or crosses the updated SBBO.
- (5) Evaluation Process. The COB is evaluated upon receipt of a new complex order, and is evaluated continually thereafter by the System.
 - (A) Evaluation Upon Receipt During Regular Trading. After a complex strategy is open for trading, all new complex orders that are received for the complex strategy are evaluated upon arrival. The System will determine if such complex orders are COA-eligible orders, using the process and criteria described in subparagraph (d) below. The System will also evaluate:

- (i) whether such complex orders are eligible for full or partial execution against a complex order resting on the COB;
- (ii) whether such complex orders are eligible for full or partial execution through Legging with the Simple Book (as described in subparagraph (c)(2)(F) above);
- (iii) whether all or any remaining portion of a complex order should be placed on the COB;
- (iv) the eligibility of such complex orders (as applicable) to participate in the managed interest process as described in subparagraph (c)(4) above; and
- (v) whether such complex orders should be cancelled.
- (B) Continual Evaluation. The System will continue to evaluate complex orders on the COB. The System will also continue to evaluate:
 - (i) whether such complex orders are eligible for full or partial execution against a complex order resting on the COB;
 - (ii) whether such complex orders are eligible for full or partial execution through Legging with the Simple Book (as described in subparagraph (c)(2)(F) above);
 - (iii) whether all or any remaining portion of a complex order should be placed on the COB;
 - (iv) the eligibility of such complex orders (as applicable) to participate in the managed interest process as described in subparagraph (c)(4) above; and
 - (v) whether such complex orders should be cancelled.

The System will also continue to evaluate whether there is a trading halt affecting any component of a complex strategy, and, if so, the System will handle complex orders in the manner set forth in Interpretation and Policy .05 of this Rule.

- (C) Complex Orders That Are COA-eligible. If the System determines that a complex order is a COA-eligible order, such complex order will be submitted into the COA process as described in subparagraph (d) below.
- (D) Complex Orders That Are Not COA-eligible. If the System determines that a complex order is not a COA-eligible order, such complex order may be, as applicable:
 - (i) immediately matched and executed against a complex order resting on the COB;

- (ii) executed against the individual components of the complex order on the Simple Book through Legging (as described in subparagraph (c)(2)(F) above);
- (iii) placed on the COB and managed pursuant to the managed interest process as described in subparagraph (c)(4) above; or
- (iv) cancelled by the System if the time-in-force of the complex order does not allow it to rest on the COB.
- (6) Complex Market Orders. Complex orders may be submitted as market orders and may be designated as COA-eligible.
 - (A) Complex market orders designated as COA-eligible may initiate a COA upon arrival.
 - (B) Complex market orders not designated as COA-eligible will trade immediately with any contra-side complex orders, or against the individual legs, up to and including the SBBO, and if not fully executed due to applicable price protections, may be posted to the COB subject to the managed interest process described in subparagraph (c)(4) above, and the Evaluation Process described in subparagraph (c)(5) above.
- (7) QCC with Stock Orders. The System processes QCC with Stock Orders as follows:
 - (A) Entry of QCC with Stock Order. When a User enters a QCC with Stock Order on the Exchange, it enters a QCC Order with a stock component (pursuant to Rule 21.10(d)(10)). When entering a QCC with Stock Order, the User must:
 - (i) include a net price for the stock and option components;
 - (ii) give up a Clearing Member in accordance with Rule 21.12; and
 - (iii) designate a specific broker-dealer to which the stock components will be communicated, which broker-dealer the Exchange must have identified as having connectivity to electronically communicate the stock components of QCC with Stock Orders to stock trading venues and with which the User must have entered into a brokerage agreement (the "designated broker-dealer"). The Exchange will have no financial arrangements with the broker-dealers it has identified with respect to communicating stock orders to them.

(B) Option Component.

(i) If the option component (i.e., the QCC Order) of a QCC with Stock Order can execute, the System executes it in accordance with Rule 21.8, but does not immediately send the User a trade execution report. The System then automatically communicates the stock component to the designated broker-dealer for execution at a stock trading venue.

(ii) If the option component of a QCC with Stock Order cannot execute, the System cancels the QCC with Stock Order, including both the stock and option components.

(C) Stock Component.

- (i) If the System receives an execution report for the stock component of a QCC with Stock Order from the designated broker-dealer, the Exchange sends the User the trade execution report for the QCC with Stock Order, including execution information for both the stock and option components. The execution price of the buy (sell) stock leg of a QCC with Stock Order may be any price (including outside the NBBO for the stock leg), except the price must be permitted by Regulation SHO and the Limit Up-Limit Down Plan.
- (ii) If the System receives a report from the designated broker-dealer that the stock component of a QCC with Stock Order cannot execute, the Exchange nullifies the option component trade and notifies the User of the reason for the nullification.]
- (d) <u>Complex Order Auctions (COAs).</u> [Process. All option classes will be eligible to participate in a COA. Upon evaluation as set forth in subparagraph (c)(5) above, the Exchange may determine to automatically submit a COA-eligible order into a COA.
 - (1) COA-eligible order. A "COA-eligible order" means a complex order that, as determined by the Exchange, is eligible to initiate a COA based upon the Member's instructions, the order's marketability (i.e., if the price of such order is equal to or better than the current SBBO, subject to applicable restrictions when a Priority Customer Order comprises a portion of the SBBO) as determined by the Exchange, number of components, and complex order origin codes (i.e., non-broker-dealer customers, broker-dealers that are not market makers on an options exchange, and/or market makers on an options exchange as determined by the Exchange). An AON complex order that does not satisfy these eligibility criteria will be cancelled. Determinations by the Exchange with respect to COA eligibility will be communicated to Members via specifications and/or Regulatory Circular. In order to initiate a COA upon receipt, a COA-eligible order must be designated as such and must meet the criteria described in Interpretation and Policy .02 of this Rule. Complex orders processed through a COA may be executed without consideration to prices of the same complex interest that might be available on other exchanges. A COA will be allowed to occur at the same time as other COAs for the same complex strategy.
 - (2)] (1) Commencement of COA. Upon receipt of a COA-eligible order in any class, the [Exchange will begin] System initiates the COA process by sending a COA auction message[. The COA auction message will be sent] to all subscribers to the Exchange's data feeds that deliver COA auction messages. [The] A COA auction message [will identify] identifies the COA auction ID, instrument ID (i.e., complex strategy), origin code, quantity, and side of the market of the COA-eligible order. The Exchange may also determine to include the price in COA auction messages [and if it does so it will announce

such determination in published specifications and/or a Regulatory Circular to Members. The price included in the COA auction message will be], which is (A) the limit order price, [unless the COA is initiated by a complex market order, in which case such price will be] (B) the SB[B]O (SBB) (if initiated by a buy (sell) market complex order), [subject to any applicable price protections] or (C) the drill-through price if the order is subject to the drill-through protection in Rule 21.17(b).

- (2) Concurrent COAs. The System may initiate a COA in a complex strategy even though another COA in that complex strategy is ongoing.
 - (A) If there are multiple COAs ongoing for a specific complex strategy, each COA concludes sequentially based on the time each COA commenced, unless terminated early pursuant to paragraph (d)(3) below. At the time each COA concludes, the System allocates the COA-eligible order pursuant to this Rule and takes into account all COA Responses for that COA, orders in the Simple Book, and unrelated complex orders on the COB at the time the COA concludes.
 - (B) If there are multiple COAs ongoing for a specific complex strategy that are each terminated early pursuant to paragraph (d)(3) below, the System processes the COAs sequentially based on the order in which they commenced.
 - (C) If a COA Response is not fully executed at the end of the identified COA to which the COA Response was submitted, the System cancels or rejects the COA Response (or unexecuted portion) at the conclusion of the specified COA.
- (3) Response Time Interval. The "Response Time Interval" means the period of time during which <u>Users may submit</u> responses to the COA auction message [may be entered]("COA Responses"). The Exchange [will] determines the duration of the Response Time Interval, which [shall]may not exceed 500 milliseconds[, and will communicate it to Members via specifications and/or Regulatory Circular]. <u>However, the Response Time Interval terminates</u> prior to the end of that time duration:
 - (A) when the System receives a non-COA-eligible order on the same side as the COA-eligible order that initiated the COA but with a price better than the COA price, in which case the System terminates the COA and processes the COA-eligible order pursuant to subparagraph (5) below and posts the new order to the COB;
 - (B) when the System receives an order in a leg of the complex order that would improve the SBBO on the same side as the COA-eligible order that initiated the COA to a price equal to or better than the COA price, in which case the System terminates the COA and processes the COA-eligible order pursuant to subparagraph (5) below, posts the new order to the Simple Book, and updates the SBBO; or
 - (C) if the System receives a Priority Customer Order that would join or improve the SBBO on the same side as the COA in progress to a price equal to or better than the COA price, in which case the System terminates the COA and processes the COA-

- eligible order pursuant to subparagraph (5) below, posts the new order to the Simple Book, and updates the SBBO.
- (4) *COA Responses*. [Members may submit a response to the COA auction message (a "COA Response") during the Response Time Interval. COA Responses can be submitted by a Member with any origin code, including Priority Customer. COA Responses may be submitted] The System accepts a COA Response(s) with any origin code in \$0.01 increments during the Response Time Interval.
 - (A) A COA Response [and] must specify the price, size, side of the market (*i.e.*, a response to a buy COA as a sell or a response to a sell COA as a buy) and COA auction ID for the COA to which the [response is targeted]the User is submitting the COA Response.
 - (B) The System aggregates the size of COA Responses submitted at the same price for an EFID, and caps the size of the aggregated COA Responses at the size of the COA-eligible order. [Multiple COA Responses from the same Member may be submitted during the Response Time Interval.]
 - (C) During the Response Time Interval, COA Responses [represent non-firm interest that can be modified or withdrawn] are not firm, and Users can modify or withdraw them at any time prior to the end of the Response Time Interval, although [any modification to a COA Response other than a decrease of size will result in] the System applies a new timestamp to any modified COA Response (unless the modification was to decrease its size), which results in [and a] loss of priority. The Exchange does not display COA Responses [will not be displayed by the Exchange]. At the end of the Response Time Interval, COA Responses are firm (i.e., guaranteed at their price and size).
 - (D) A COA Response may only execute against the COA-eligible order for the COA to which a User submitted the COA Response. The System cancels or rejects any unexecuted [Any] COA Responses (or unexecuted portions) at the conclusion of the COA [not executed in full will expire at the end of the COA]. [Any COA Responses not executable based on the price of the COA will be cancelled immediately.]
- (5) Processing of COA-[e]Eligible [o] Orders.
 - (A) At the end of the Response Time Interval, the System executes a COA-eligible order[s may be executed] (in whole or in part)[. COA-eligible orders will be executed] against [the best priced] contra side interest in price priority. If there is contra side interest at the same price, the System allocates the contra side interest as follows: [as described in subparagraphs (6) and (7) below.]
 - (i) Priority Customer Orders resting on the Simple Book for the individual leg components of the complex order through Legging (subject to paragraph (g)) in time priority;

- (ii) COA Responses and unrelated orders on the COB in time priority; and
- (iii) remaining orders in the Simple Book for the individual leg components of the complex order through Legging (subject to paragraph (g)), which the System allocates in accordance with Rule 21.8.

Notwithstanding the foregoing, at the conclusion of a COA of an AON complex order, the AON complex order may only execute against COA Responses and unrelated orders on the COB in price-time priority if there is sufficient size to satisfy the AON complex order (and may not execute against orders in the Simple Book). If there is insufficient size to satisfy the AON complex order, the System cancels the order.

- (B) [Any unexecuted portion of a] The System enters any COA-eligible order (or unexecuted portion) that does not execute [remaining] at the end of the [Response Time Interval will be placed on] COA into the COB (if eligible to rest), and applies a timestamp based on the time it enters the COB. The System cancels or rejects any COA-eligible order (or unexecuted portion) that does not execute at the end of the COA if not eligible for entry into the COB or in accordance with the User's instructions. Complex orders resting on the COB may execute pursuant to paragraph (e) following evaluation pursuant to paragraph (i) and remain on the COB until they execute or are cancelled or rejected [and ranked pursuant to subparagraph (c)(3) above or cancelled, if IOC].
- [(C) Notwithstanding the foregoing in this subparagraph (d)(5), the COA will terminate:
 - (i) upon receipt of a new non-COA-eligible order on the same side as the COA but with a better price, in which case the COA will be processed and the new order will be posted to the COB;
 - (ii) if an order is received that would improve the SBBO on the same side as the COA in progress to a price better than the auction price, in which case the COA will be processed, the new order will be posted to the Simple Book and the SBBO will be updated; or
 - (iii) if a Priority Customer Order is received that would join or improve the SBBO on the same side as the COA in progress to a price equal to or better than the auction price, in which case the COA will be processed, the new order will be posted to the Simple Book and the SBBO will be updated.
- (6) COA Pricing. A complex strategy will not be executed at a net price that would cause any component of the complex strategy to be executed: (A) at a price of zero: or (B) ahead of a Priority Customer Order on the Simple Book without improving the BBO on at least one component of the complex strategy by at least \$.01. At the conclusion of the Response Time Interval, COA-eligible orders will be allocated pursuant to subparagraph (7) below.

An AON complex order may only execute following a COA at a price that improves the then-current SBBO.

- (7) Allocation at the Conclusion of a COA. Orders executed in a COA will be allocated first in price priority based on their original limit price as follows:
 - (A) Priority Customer Orders resting on the Simple Book;
 - (B) COA Responses and unrelated orders on the COB in time priority; and
 - (C) Remaining individual orders in the Simple Book (i.e., non-Priority Customer), which will be allocated pursuant to Rule 21.8.

Notwithstanding the foregoing, at the conclusion of a COA of an AON complex order, the AON complex order may only execute against COA Responses and unrelated orders on the COB in price-time priority if there is sufficient size to satisfy the AON complex order (and may not execute against orders in the Simple Book). If there is insufficient size to satisfy the AON complex order, the System cancels the order.]

- (e) Processing of Do-Not-COA Orders/Orders Resting on the COB. Upon receipt of a do-not-COA order, or if the System determines an order resting on the COB is eligible for execution following evaluation pursuant to paragraph (i), the System executes it (in whole or in part) against contra side interest in price priority. If there is contra side interest at the same price, the System allocates the contra side interest as follows:
 - (1) Priority Customer Orders resting on the Simple Book for the individual leg components of the complex order through Legging (subject to paragraph (g)) in time priority;
 - (2) unrelated orders on the COB in time priority; and
 - (3) remaining orders in the Simple Book for the individual leg components of the complex order through Legging (subject to paragraph (g)), which the System allocates in accordance with Rule 21.8.

The System enters any do-not-COA order (or unexecuted portion) that does not execute against the individual leg markets or complex orders into the COB (if eligible to rest), and applies a timestamp based on the time it enters the COB. The System cancels or rejects any complex order (or unexecuted portion) that would execute at a price outside of the SBBO or equal to the SBBO when there is a Priority Customer Order at the SBBO and the complex order is not eligible for entry into the COB, that is otherwise not eligible for entry into the COB, or in accordance with the User's instructions. Complex orders resting on the COB may execute pursuant to this paragraph (e) following evaluation pursuant to paragraph (i) and remain on the COB until they execute or are cancelled or rejected.

(f) Minimum Increments and Execution Prices.

(1) Minimum Increments.

- (A) Complex Orders. The minimum increment for bids and offers on a complex order is \$0.01, and the components of a complex order may be executed in \$0.01 increments, regardless of the minimum increments otherwise applicable to the individual components of the complex order.
- (B) Stock-Option Orders. Users may express bids and offers for a stock-option order (including a QCC with Stock Order) in any decimal price the Exchange determines. The option leg(s) of a stock-option order may be executed in \$0.01 increments, regardless of the minimum increments otherwise applicable to the option leg(s), and the stock leg of a stock-option order may be executed in any decimal price permitted in the equity market.

(2) Execution Prices and Complex Order Priority.

- (A) Complex Orders. The System does not execute a complex order pursuant to this Rule 21.20 at a net price (i) that would cause any component of the complex strategy to be executed at a price of zero; (ii) worse than the SBBO or equal to the SBBO when there is a Priority Customer Order at the SBBO, except AON complex orders may only execute at prices better than the SBBO; (iii) that would cause any component of the complex strategy to be executed at a price worse than the individual component prices on the Simple Book; (iv) worse than the price that would be available if the complex order Legged into the Simple Book; or (v) that would cause any component of the complex strategy to be executed at a price ahead of a Priority Customer Order on the Simple Book without improving the BBO of at least one component of the complex strategy.
- (B) Stock-Option Orders. For a stock-option order with one option leg, the option leg may not trade at a price worse than the individual component price on the Simple Book or at the same price as a Priority Customer Order on the Simple Book. For a stock-option order with more than one option leg, the option legs must trade at prices pursuant subparagraph (A) above. A stock-option order may only execute if the stock leg is executable at the price(s) necessary to achieve the desired net price. The System executes the buy (sell) stock leg of a stock-option order pursuant to Rule 21.20 up to a buffer amount above (below) the NBO (NBB) for the stock leg. The execution price of the buy (sell) stock leg of a QCC with Stock Order may be any price (including outside the NBBO for the stock leg), except the price must be permitted by Regulation SHO and the Limit Up-Limit Down Plan.
- (3) Other Exchanges. The System executes complex orders without consideration of any prices for the complex strategy that might be available on other exchanges trading the same complex strategy; provided, however, that such complex order price may be subject to the drill-through price protection described in Rule 21.17(b).

- (g) Legging Restrictions. A complex order may execute against orders and quotes in the Simple Book pursuant to subparagraphs (d)(5)(A) and (e) if it can execute in full or in a permissible ratio and if it has no more than a maximum number of legs (which the Exchange determines on a class-by-class basis and may be two, three, or four) ("Legging"), subject to the following restrictions:
 - (1) All two leg COA-eligible Customer complex orders may Leg into the Simple Book without restriction.
 - (2) Complex orders for any other Capacity with two option legs that are both buy or both sell and that are both calls or both puts may not Leg into the Simple Book. These orders may execute against other complex orders in the COB.
 - (3) All complex orders with three or four option legs that are all buy or all sell (regardless of whether the option legs are calls or puts) may not Leg into the Simple Book. These orders may execute against other complex orders in the COB.
 - (4) Post Only complex orders and AON complex orders may not Leg into the Simple Book.
 - (5) Stock-option orders may not Leg into the Simple Book and may only execute against other stock-option orders.
- (h) Additional Complex Order Handling. Processing and execution of complex orders pursuant to this Rule 21.20 (including pursuant to paragraphs (d) and (e), and following evaluation pursuant to paragraph (i)) are subject to the following:
 - (1) A complex market order or limit order with a price that locks or crosses the then-current opposite side SBBO and does not execute because the SBBO is the best price but not available for execution (because it does not satisfy the complex order ratio or the complex order cannot Leg into the Simple Book) enters the COB with a book and display price that (A) is \$0.01 away from the current opposite side SBBO if the opposite side SBBO is represented by a Priority Customer Order or (B) locks the current opposite side SBBO. If the SBBO changes, the System continuously reprices the book and display price of the complex order (or unexecuted portion) based on the new SBBO (up to the limit price, if it is a limit order), subject to the drill-through price protection described in Rule 21.17(b) until:
 - (A) the complex order has been executed in its entirety; or
 - (B) the complex order (or unexecuted portion) of the complex order is cancelled or rejected.
 - (2) The System cancels or rejects an incoming Post Only complex order if it locks or crosses a resting complex order in the COB or the then-current opposite side SBBO. The System cancels a resting Post Only complex limit order after evaluation pursuant to paragraph (i) below if the System determines the resting Post Only complex limit order locks or crosses the updated SBBO.
 - (3) If there is a zero NBO for any leg, the System replaces the zero with a price \$0.01 above the NBB to calculate the SNBBO, and complex orders with any buy legs do not Leg into the

Simple Book. If there is a zero NBB, the System replaces the zero with a price of \$0.01, and complex orders with any sell legs do not Leg into the Simple Book. If there is a zero NBB and zero NBO, the System replaces the zero NBB with a price of \$0.01 and replaces the zero NBO with a price of \$0.02, and complex orders do not Leg into the Simple Book.

- (i) Evaluation. The System evaluates an incoming complex order upon receipt or after the open of trading to determine whether it is a COA-eligible order or a do-not-COA order and thus whether it should be processed pursuant to paragraph (d) or (e), respectively, or cancelled. The System reevaluates a complex order resting on the COB (including an order (or unexecuted portion) that did not execute pursuant to paragraph (d) or (e) upon initial receipt):
 - (1) at time the COB opens;
 - (2) following a halt; and
 - (3) during the trading day when the leg market price or quantity changes to determine whether the complex order:
 - (A) can execute (pursuant to paragraph (e));
 - (B) should be repriced (pursuant to paragraph (h));
 - (C) should remain resting on the COB; or
 - (D) should be cancelled.
- ([8]i) [Effect of] Limit Up-Limit Down State. [Consistent with Rule 21.1(d)(5), t]
 - (1) The System [will]cancels or rejects a complex market order it receives[d] when the underlying security is subject to a Limit State or Straddle [s]State, as such terms are defined in the Limit Up-Limit Down Plan.
 - (2) If during a COA of a market order the underlying security [of a COA-eligible order that is a market order] enters a Limit State or Straddle State, the System terminates the COA [will end early] without trading and cancels or rejects all COA Responses[will be cancelled].
 - (3) The Exchange only executes the stock leg of a stock-option order at a price permissible under the Limit Up-Limit Down Plan. If a stock-option order cannot execute, the System calculates the SBBO or SNBBO with a price for the stock leg that would be permissible under that Plan, and posts the stock-option order on the COB at that price (if eligible to rest), subject to a User's instructions.
- ([9]k) [Effect of] *Trading Halts*.
- [If, during a COA, the underlying security and/or any component of a COA-eligible order is subject to a trading halt, the COA will be handled as set forth in Interpretation and Policy .05 of this Rule.]

- (1) Halts During Regular Trading. If a trading halt exists for the underlying security or a component of a complex strategy, trading in the complex strategy will be suspended, and the System queues a User's complex orders unless the User instructed the Exchange to cancel its complex orders upon a trading halt. The COB will remain available for Users to enter and manage complex orders. Incoming complex orders that could otherwise execute or initiate a COA in the absence of a halt will be placed on the COB. Incoming complex orders with a time in force of IOC will be cancelled.
- (2) Halts During a COA. If, during a COA, any component(s) and/or the underlying security of a COA-eligible order is halted, the COA ends early without trading, and the System cancels or rejects all COA Responses. The System enters remaining complex orders on the COB (if eligible to rest) or cancels complex orders that are not eligible to rest on the COB.
- (3) Resumption of Trading Following a Halt. When trading in the halted component(s) and/or underlying security of the complex order resumes, the System re-opens the COB pursuant to paragraph (c) above. The System queues any complex orders designated for a re-opening following a halt until the halt has ended, at which time they are eligible for execution in the Opening Process.
- (1) Stock-Option Orders. Stock-option orders execute in the same manner as other complex orders pursuant to this Rule, except as follows:
 - (1) Designated Broker-Dealer. When a User submits to the System a stock-option order, it must designate a specific broker-dealer with which it has entered into a brokerage agreement pursuant to Interpretation and Policy .03 of this Rule (the "designated broker-dealer") to which the Exchange will electronically communicate the stock component of the stock-option order on behalf of the User.
 - (2) Execution. A stock-option order may execute against other stock-option orders (or COA Responses, if applicable), but may not execute against orders in the Simple Book. A stock-option order may only execute if the price complies with subparagraph (f)(2)(B) above.
 - (A) Execution of Option Component. If a stock-option order can execute upon entry or following a COA, or if it can execute following evaluation while resting in the COB pursuant to paragraph (i), the System executes the option component (which may consist of one or more option legs) of a stock-option order against the option component of other stock-option orders resting in the COB or COA responses (in time priority), as applicable, but does not immediately send the User a trade execution report, and then automatically communicates the stock component to the designated broker-dealer for execution at a stock trading venue.
 - (B) Execution of Stock Component. If the System receives an execution report for the stock component from the designated broker-dealer, the Exchange sends the User the trade execution report for the stock-option order, including execution information for the stock and option components. If the System receives a report from the designated broker-dealer that the stock component cannot execute, the

Exchange nullifies the option component trade and notifies the User of the reason for the nullification.

If a stock-option order is not marketable, it rests in the COB (if eligible to rest), subject to a User's instructions.

- (3) QCC with Stock Orders. The System processes QCC with Stock Orders as follows:
 - (A) Entry of QCC with Stock Order. When a User submits a QCC with Stock Order to the System, it enters a QCC Order (which may be a Complex QCC Order) pursuant to Rule 21.1(d)(10) with a stock component (pursuant to this Rule 21.20). When entering a QCC with Stock Order, the User must: (i) include a net price for the stock and option components in accordance with the minimum increments for stock-option orders set forth in paragraph (f) above, and (ii) identify the designated broker-dealer as set forth in subparagraph (l)(2) above.
 - (B) Execution of Option Component. If the option component (i.e., the QCC Order or Complex QCC Order) of a QCC with Stock Order can execute, the System executes it in accordance with Rule 21.1(d)(10), but does not immediately send the User a trade execution report, and automatically communicates the stock component to the designated broker-dealer for execution at a stock trading venue. If the option component(s) of a QCC with Stock Order cannot execute, the System cancels the QCC with Stock Order, including both the stock and option components.
 - (C) Execution of Stock Component. If the System receives an execution report for the stock component of a QCC with Stock Order from the designated broker-dealer, the Exchange sends the User the trade execution report for the QCC with Stock order, including execution information for both the stock and option components. If the System receives a report from the designated broker-dealer that the stock component of a QCC with Stock Order cannot execute, the Exchange nullifies the option component trade and notifies the User of the reason for the nullification.

(4) Regulation SHO.

- (A) If a User submits to the System a stock-option order with a stock leg to sell, the User must mark the stock leg "long," "short," or "short exempt" in compliance with Regulation SHO under the Exchange Act.
- (B) The Exchange only executes the stock leg of a stock-option order at a price permissible under Regulation SHO. If a stock-option order cannot execute, the System calculates the SBBO or SNBBO with a price for the stock leg that would be permissible under Regulation SHO, and posts the stock-option order on the COB at that price (if eligible to rest), subject to a User's instructions.

Interpretations and Policies:

.01. No change.

.02. [COA Eligibility.

Upon receipt of a complex order that is designated as a COA-eligible order when the complex strategy is open, the System will determine whether the order is qualified to initiate a COA. If a COA-eligible order is priced equal to, or improves, the SBBO and is also priced to improve other complex orders resting at the top of the COB, the complex order will be eligible to initiate a COA, provided that if any of the bids or offers on the Simple Book that comprise the SBBO consists of a Priority Customer Order, the COA will only be initiated if it will trade at a price that is better than the corresponding bid or offer by at least a \$0.01 increment.

Pursuant to this Rule, a COA will be allowed to commence even to the extent a COA for the same complex strategy is already underway. To the extent there is more than one COA for a specific complex strategy underway at a time, each COA will conclude sequentially based on the exact time each COA commenced, unless terminated early pursuant to paragraph (d)(5)(C) of this Rule. At the time each COA concludes, such COA will be allocated pursuant to this Rule and will take into account all COA Responses and unrelated complex orders on the COB at the exact time of conclusion. In the event there are multiple COAs underway that are each terminated early pursuant to paragraph (d)(5)(C) of this Rule, the COAs will be processed sequentially based on the order in which they commenced. Because a COA Response must specifically identify the COA for which it is targeted, and if not fully executed will be cancelled back at the conclusion of the COA, COA Responses will only be considered in the specified COA.]

- .03.] *Dissemination of <u>COA_Information</u>*. Dissemination of information related to COA-eligible orders by the submitting [Member]<u>User</u> to third parties will be deemed conduct inconsistent with just and equitable principles of trade as described in Rule 3.1.
- .03 Stock-Option Orders. A User may only submit a stock-option order (including a QCC with Stock Order) if it complies with the Qualified Contingent Trade Exemption ("QCT Exemption") from Rule 611(a) of Regulation NMS. A User submitting a stock-option order represents that it complies with the QCT Exemption. To submit a stock-option order to the Exchange for execution, a User must enter into a brokerage agreement with one or more broker-dealers that are not affiliated with the Exchange, which broker-dealer(s) the Exchange has identified as having connectivity to electronically communicate the stock components of stock-option orders to stock trading venues.

[.04. Price and Other Protections

- (a) Definitions. For purposes of this Interpretation and Policy .04:
 - (1) Vertical Spread. A "vertical" spread is a two-legged complex order with one leg to buy a number of calls (puts) and one leg to sell the same number of calls (puts) with the same expiration date but different exercise prices.
 - (2) Butterfly Spread. A "butterfly" spread is a three-legged complex order with two legs to buy (sell) the same number of calls (puts) and one leg to sell (buy) twice as many calls (puts), all with the same expiration date but different exercise prices, and the exercise price of the middle leg is between the exercise prices of the other legs. If the exercise price of the

middle leg is halfway between the exercise prices of the other legs, it is a "true" butterfly; otherwise, it is a "skewed" butterfly.

- (3) Box Spread. A "box" spread is a four-legged complex order with one leg to buy calls and one leg to sell puts with one strike price, and one leg to sell calls and one leg to buy puts with another strike price, all of which have the same expiration date and are for the same number of contracts.
- (b) Credit-to-Debit Parameters: Market orders that would be executed at a net debit price after receiving a partial execution at a net credit price will be cancelled.
- (c) Debit/Credit Price Reasonability Checks.
 - (1) To the extent a price check parameter is applicable, the Exchange will not accept a complex order that is a limit order for a debit strategy with a net credit price that exceeds a pre-set buffer, a limit order for a credit strategy with a net debit price that exceeds a pre-set buffer, or a market order for a credit strategy that would be executed at a net debit price that exceeds a pre-set buffer. The Exchange will determine these pre-set buffer amounts and communicate them to Members via specifications and/or Regulatory Circular.
 - (2) The System defines a complex order as a debit or credit as follows:
 - (A) a call butterfly spread for which the middle leg is to sell (buy) and twice the exercise price of that leg is greater than or equal to the sum of the exercise prices of the buy (sell) legs is a debit (credit);
 - (B) a put butterfly spread for which the middle leg is to sell (buy) and twice the exercise price of that leg is less than or equal to the sum of the exercise prices of the buy (sell) legs is a debit (credit); and
 - (C) an order for which all pairs and loners are debits (credits) is a debit (credit). For purposes of this check, a "pair" is a pair of legs in an order for which both legs are calls or both legs are puts, one leg is a buy and one leg is a sell, and both legs have the same expiration date but different exercise prices or, for all options except European-style index options, the same exercise price but different expiration dates. A "loner" is any leg in an order that the System cannot pair with another leg in the order (including legs in orders for European-style index options that have the same exercise price but different expiration dates).
 - (i) The System first pairs legs to the extent possible within each expiration date, pairing one leg with the leg that has the next highest exercise price.
 - (ii) The System then, for all options except European-style index options, pairs legs to the extent possible with the same exercise prices across expiration dates, pairing one leg with the leg that has the next nearest expiration date.

- (iii) A pair of calls is a credit (debit) if the exercise price of the buy (sell) leg is higher than the exercise price of the sell (buy) leg (if the pair has the same expiration date) or if the expiration date of the sell (buy) leg is farther than the expiration date of the buy (sell) leg (if the pair has the same exercise price).
- (iv) A pair of puts is a credit (debit) if the exercise price of the sell (buy) leg is higher than the exercise price of the buy (sell) leg (if the pair has the same expiration date) or if the expiration date of the sell (buy) leg is farther than the expiration date of the buy (sell) leg (if the pair has the same exercise price).
- (v) A loner to buy is a debit, and a loner to sell is a credit.

The System does not apply the check in subparagraph (1) to an order for which the System cannot define whether it is a debit or credit.

- (3) The System rejects or cancels back to the Member any limit order or market order (or any remaining size after partial execution of the order), that does not satisfy this check.
- (4) This check applies to auction responses in the same manner as it does to orders.
- (d) Buy Strategy Parameters. The System will reject a limit order where all the components of the strategy are to buy and the order is priced at zero, any net credit price that exceeds a pre-set buffer, or a net debit price that is less than the number of individual option series legs in the strategy (or applicable ratio) multiplied by the applicable minimum net price increment for the complex order.
- (e) Maximum Value Acceptable Price Range: The System will reject an order that is a vertical, true butterfly or box spread, or a limit order or market order if it would execute at a price that is outside of an acceptable price range. The acceptable price range is set by the minimum and maximum possible value of the spread, subject to an additional buffer amount determined by the Exchange and communicated to Members via specifications and/or a Regulatory Circular:
 - (1) The maximum possible value of a vertical, true butterfly and box spread is the difference between the exercise prices of (A) the two legs; (B) the middle leg and the legs on either side; and (C) each pair of legs, respectively.
 - (2) The minimum possible value of the spread is zero.
- (f) Drill-Through Price Protection. The Drill-Through Price Protection feature is a price protection mechanism applicable to all complex orders under which a buy (sell) order will not be executed at a price that is higher (lower) than the SNBBO or the SNBBO at the time of order entry plus (minus) a buffer amount (the "Drill-Through Price"). The Exchange will adopt a default buffer amount for the Drill-Through Price Protection and will publish this amount in publicly available specifications and/or a Regulatory Circular. A Member may modify the buffer amount applicable to Drill-Through Price Protections to either a larger or smaller amount than the Exchange default. If a buy (sell) order would execute or post to the COB at a price higher (lower) than the Drill-Through Price, the System

will instead post the order to the COB at the Drill-Through Price, unless the terms of the order instruct otherwise. Any order (or unexecuted portion thereof) will rest in the COB (based on the time at which it enters the book for priority purposes) for a time period in milliseconds that may not exceed three seconds (which the Exchange will determine and communicate to Members via specifications and/or Regulatory Circular) with a price equal to the Drill-Through Price. If the order (or unexecuted portion thereof) does not execute during that time period, the System will cancel it.

.05 Trading Halts

- (a) Halts During Regular Trading. If a trading halt exists for the underlying security or a component of a complex strategy, trading in the complex strategy will be suspended. The System queues a Member's open complex orders during a halt, unless the Member entered instructions to cancel its open complex orders upon a halt, for participation in the re-opening of the COB as set forth in paragraph (c) below. The COB will remain available for Members to enter and manage complex orders. Incoming complex orders that could otherwise execute or initiate a COA in the absence of a halt will be placed on the COB. Incoming complex orders with a time in force of IOC will be cancelled.
- (b) Halts During a COA. If, during a COA, any component(s) and/or the underlying security of a COA-eligible order is halted, the COA will end early without trading and all COA Responses will be cancelled. Remaining complex orders will be placed on the COB if eligible, or cancelled.
- (c) Resumption of Trading Following a Halt. When trading in the halted component(s) and/or underlying security of the complex order resumes, the System will evaluate and re-open the COB pursuant to subparagraphs (c)(2)(B)-(D) above.

.06. Other Risk Protection for Complex Orders

- (a) Fat Finger Price Protection. The Exchange defines a price range outside of which a complex limit order will not be accepted by the System. The price range is a number defined by the Exchange and communicated to Members via specifications and/or Regulatory Circular. A Member may also establish a more aggressive or restrictive value than the Exchange default. The default price range for Fat Finger Price Protection will be greater than or equal to a price through the SNBBO for the complex strategy to be determined by the Exchange and communicated to Members via specifications and/or Regulatory Circular. A complex limit order to sell will not be accepted at a price that is lower than the SNBBO bid, and a complex limit order to buy will not be accepted at a price that is higher than the SNBBO offer, by more than the Exchange defined or Member established price range. A complex limit order that is priced through this range will be rejected.
- (b) Complex Order Size Protections. The System will prevent certain complex orders from executing or being placed on the COB if the size of the complex order exceeds the complex order size protection designated by the Member. If the maximum size of complex orders is not designated by the Member, the Exchange will set a maximum size of complex orders on behalf of the Member by default. Members may designate the complex order size protection on a firm wide basis. The default maximum size for complex orders will be determined by the Exchange and communicated to Members via specifications and/or Regulatory Circular.

(c) The protections set forth in this Interpretation and Policy .06 will be available for complex orders as determined by the Exchange and communicated to Members via specifications and/or Regulatory Circular.]

* * * * *