February 13, 2023

Christopher J. Kirkpatrick
Secretary
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

Re: Cboe Futures Exchange, LLC Rule Certification
Submission Number CFE-2023-002

Dear Mr. Kirkpatrick:

Pursuant to Section 5c(c)(1) of the Commodity Exchange Act, as amended ("Act"), and Regulation 40.6(a) promulgated by the Commodity Futures Trading Commission ("CFTC" or "Commission") under the Act, Cboe Futures Exchange, LLC ("CFE" or "Exchange") hereby submits a CFE rule amendment ("Amendment") to amend CFE's rules to reflect changes that CFE is making to its trading system in connection with CFE's planned listing of options on futures.

Exhibits A and B to this submission set forth the rule changes included in the Amendment. Exhibit A reflects changes to the CFE Rulebook, and Exhibit B reflects changes to the Policies and Procedures Section of the CFE Rulebook.

The Amendment will become effective on or after February 28, 2023, on an implementation date to be announced by the Exchange through the issuance of an Exchange notice ("Effective Date").

Overview

CFE plans to offer options on futures for trading on CFE.

CFE previously listed options on futures for trading on CFE from 2010 to 2012 when CFE used a different trading system than it does today. Accordingly, CFE's rules already contemplate and address trading in options on futures in many ways and refer to options on futures as Options.

CFE is enhancing its current trading system to accommodate trading in options on futures. In connection with doing so, CFE is making changes to CFE's current trading system and is implementing new trading system functionality relating to the trading of options on futures. Some of these changes require updates and additions to how CFE's rules currently address the trading of options on futures.

The purpose of this rule certification is to update CFE's rules to address the changes to CFE's current trading system and the new trading system functionality that CFE is implementing in order accommodate the trading of options on futures on CFE.

This rule certification has general application to any options on futures that may be offered for trading on CFE. CFE will submit separate product and rule certifications to the Commission relating specifically to any options on futures that CFE intends to list for trading. Those submissions will be product specific and include the contract specifications and product rules related to those particular options on futures.

CFE is also taking the opportunity in this rule certification to make some rule updates that relate to options on futures which also have broader application, such as rule updates that would apply in relation to futures offered for trading on CFE which are referred to as Futures in CFE's rules.

Description of Rule Changes

Below is a description by rule number of the substantive rule changes included in the Amendment. The trading system functionality that is discussed below is described at a high level with a focus on noting the primary aspects of the functionality, and the functionality may have other more technical features that are described in the applicable rule language.

CFE Rule Chapter 1 (Definitions) – CFE is amending Chapter 1 of the CFE Rulebook in order to update various definitions of defined terms that are utilized within CFE's rules.

CFE utilizes The Options Clearing Corporation as CFE's derivatives clearing organization. The term "Clearing Corporation" is defined in Chapter 1 as The Options Clearing Corporation or such other clearing organization as the Exchange may designate in the future to provide clearing services with respect to any or all of CFE's Contracts. CFE is revising this definition to provide that The Options Clearing Corporation may also be referred to as "OCC" within CFE's rules.

CFE is amending the definition of "Contract" in Chapter 1 to provide that each single leg Futures expiration and each single leg Options series is a separate Contract and that each Futures spread and each Options spread for a product is treated like a separate Contract from a system perspective. These revisions are consistent with the current language of this definition and specifically apply the existing language to both Futures and Options.

CFE is adding the term "Related Options Product" to Chapter 1. A Related Options Product is an Options product offered for trading on the Exchange that overlies a Futures product offered for trading on the Exchange, in that the Futures product serves as the underlying interest for the Options product.

CFE is revising the definition of the term "Spread Processing Sequence" to cross-reference the updated CFE rule provisions that define the current Spread Processing Sequence applicable to Futures (now called the "Futures Spread Processing Sequence") and the new Spread Processing Sequence applicable to Options (called the "Options Spread Processing Sequence"). The Spread Processing Sequence is the order in which CFE's trading system ("CFE System") processes spreads for various purposes, such as in connection with opening process under CFE Rule 405A.

CFE Rule 403 (Order Entry and Maintenance of Front-End Audit Trail Information) – CFE is amending Rule 403(b) to update the contract identifier information that is required to be submitted in an Options Order. Specifically, amended Rule 403(b) provides that an Options Order, other than a Cancel Order or Cancel/Replace Modify Order, must contain either a Contract identifier or each of the strike price(s), type(s) of option(s) (put or call), expiration(s), and underlying Futures Contract(s).

CFE Rule 404 (Acceptable Orders) – CFE is amending Rule 404(a) to make clear that each permitted Order type under Rule 404 may be submitted in a Futures product or an Options product unless otherwise specified. The Amendment revises Rule 404 to identify two situations in which permitted Options Orders are different from permitted Futures Orders. First, the Amendment provides in Rule 404(a)(iv) that a Stop Limit Order may not be submitted in an Options product. Second, the Amendment provides in Rule 404(a)(vii)(D) that only a simple Futures Immediate Cancel Order may be submitted with a specified minimum quantity that will cause the Order to be canceled in its entirety if the specified minimum quantity is not executed upon receipt of the Order. A simple Options Immediate Cancel Order may not be submitted with a specified minimum quantity.

CFE is revising Rule 404(b) to provide that a Bulk Message may be utilized to submit Quotes in multiple Contracts in the same Options product that have the same initial identifier within their options trading symbols and may not be utilized to submit Quotes for Options Contracts in the same Options product with different initial identifiers within their options trading symbols.

CFE Rule 405A (Opening Process) – The CFE System will utilize a substantially similar opening process to open an Options product to the process that the CFE System currently uses to open a Futures product. Each of the steps in the opening process for an Options product occurs after the related step in the opening process for the Futures product that serves as the underlying interest for the Options product. Specifically, as with the opening process for a Futures product, the opening process for an Options product includes the following steps, each of which is further described in amended Rule 405A:

(i) there is a queuing period prior to the opening time for the product during which the CFE System accepts Orders but Orders are not executable;

(ii) the opening processing for an Options product commences immediately after the commencement of the opening process for the Futures product that serves as the underlying interest for the Options product (which for the Futures product occurs at the opening time for the Futures product plus a randomized time period within a designated time frame following the opening time for the Futures product);

(iii) the CFE System matches simple (single-leg) Orders in the Options product and determines an opening trade price for each single leg Options series for the Options product;

(iv) the CFE System matches Spread Orders in the Options product with other Spread Orders and determines an opening trade price for each Options spread for the Options product;

(v) the CFE System disseminates for each single leg Options series in the Options product a notice of commencement of an open state for trading and all opening prints, if any;

(vi) the CFE System disseminates for each spread in the Options product a notice of commencement of an open state for trading and all opening prints for the spread trades and the individual leg trades that comprise the spread trades, if any; and

(vii) the CFE System releases remaining Orders in an open state for trading with executable quantity not executed as part of an opening trade and allows for matching between those Orders and other released Orders.

Following the completion of the opening process, the CFE System opens any spreads that remain in a queuing state because the price of the spread generated by the opening process would be below the Implied Spread Bid or above the Impled Spread Offer (which are implied values for a spread based upon the prices of the individual legs of the spread).

The CFE System does not accept Market Orders, Immediate or Cancel Orders, or Fill or Kill Orders in a Contract until the Contract is in an open state for trading.

The opening process is also utilized whenever there is a delayed opening of an Options Contract, when CFE reopens trading in an Options Contract within the same business day (such as following a trading halt), or following the end of a queuing period triggered for Options series and Options spreads because the underlying Future was at a price limit.

<u>CFE Rule 406 (Execution of Orders by CFE System)</u> – CFE is amending Rule 406(a)(ii) to revise how the pro rata priority allocation method functions if that allocation method is utilized for a product. As revised, the pro rata priority allocation method functions in the following manner: Orders for any Contract are prioritized according to price. If at any time there are two or more Orders at the best price then available, the executable quantity of Contracts is allocated to those Orders on a pro rata basis in a proportional manner based on the relative sizes of those Orders. If the application of pro rata priority would result in the allocation to any Orders of a number of contracts that is not a whole number, any fractional amounts are cumulated into a residual amount and that residual amount is allocated to those Orders in the following manner. The residual amount is allocated one contract at a time in size-time priority until the residual amount is exhausted first to those Orders for which the fractional allocation would have been 0.5 or greater and then to those Orders for which the fractional allocation would have been less than 0.5.

CFE is revising Rule 406(b) to further clarify how the trade participation right priority overlay functions if that allocation method overlay is utilized for a product. In particular, the Amendment makes clear that if an Order is executed at multiple price levels in a successive series of executions, the trade participation right only applies to the execution of that Order at the initial price level at the best bid/offer at the time of the execution of that Order at the initial price level. The trade participation right does not apply to the execution of that Order at subsequent price levels in the successive series of executions of that Order.

<u>CFE Rule 406A (Spread Order Processing)</u> – CFE is adding Rule 406A(i)(C) to describe the types of Options Spread Orders that may be submitted to the CFE System. These permissible Options spread types include a Vertical Spread, a Butterfly Spread, a Box Spread, a Calendar Spread, an Underlying Calendar Spread, a Diagonal Spread, or any other Options spread type from time to time approved by the Exchange. The futures Contracts that underlie all of the Options legs of each these spread types must have the same futures expiration date, except in the case of an Underlying Calendar Spread. Options spreads that are processed as Block Trades are not required to be one of the above spread types. As with Futures spreads, CFE Trading Privilege Holders ("TPHs") do not have the capability to create spread types within the CFE System and may request that the CFE Trade Desk create a spread type if it is not already available in the CFE System. The Amendment makes clear that the Trade Desk may determine whether or not to

make that spread available for trading in its sole discretion.

CFE is revising Rule 406A(b) to provide that an Options Spread Order may be fully or partially executed against individual Orders in the legs of the spread that are residing in the CFE System as long as (i) the Spread Order is not able, or is no longer able, to execute against Spread Orders residing in the CFE System; (ii) the Spread Order can be executed in full (or partially executed while maintaining the ratio of the Spread Order for the unexecuted portion) against the individual leg Orders residing in the CFE System; and (iii) the Spread Order is not (a) a Spread Order with two legs where both legs are to buy or both legs are to sell and where both legs are calls or both legs are puts or (b) a Spread Order with three or four legs where all legs are to buy or all legs are to sell.

CFE Rule 412 (Position Limits) and CFE Rule 412A (Position Accountability) – CFE is adding Rule 412(g) to provide for two additional provisions relating to the applicability of position limits to Options. Rule 412(g) provides that if a position exceeds a position limit as a result of an Option assignment, the Person who owns or controls that position shall be allowed one Business Day to liquidate the excess position without being considered in violation of the position limit. Additionally, Rule 412(g) provides that if, at the close of trading on a Business Day, a position that includes Options exceeds a position limit when evaluated using the Options delta values disseminated by the Exchange for that Business Day, but does not exceed the position limit when evaluated using the Options delta values disseminated by the Exchange for the previous Business Day, then the position shall not constitute a position limit violation. CFE is also adding Rule 412A(h) to include substantially similar provisions in relation to determining when position accountability levels have been exceeded.

CFE Rule 513A (Risk Controls) – CFE is amending Rule 513A to describe risk controls that CFE is implementing with respect to trading in Options. As amended, Rule 513A describes which risk controls under Rule 513A are applicable to Futures products, Options products, or both Futures and Options products; whether CFE Clearing Members, TPHs, and/or the Exchange may set the applicable risk control; and that the most restrictive setting applies if more than one party is able to set a particular risk control. Rule 513A already provides that CFE Clearing Members are required to obtain access to and utilize the risk control mechanisms that the Exchange makes available for use by Clearing Members and this provision is applicable in relation to Options.

CFE is revising Rule 513A(b) to specifically provide that the maximum Order contract size limit risk control may be utilized for Options. This risk control allows Clearing Members and TPHs to designate maximum Order contract size limits by Executing Firm ID ("EFID") and Options product. The risk control rejects or cancels back to the sender an Order with a quantity that is greater than the applicable designated maximum Order contract size limit.

CFE is amending Rule 513A(b) to add an Options maximum notional value Order size limit that may be utilized for Options. This risk control allows Clearing Members and TPHs to designate maximum notional value Order size limits by Executing Firm ID ("EFID") and Options product for single leg Orders. The risk control rejects or cancels back to the sender a single leg Options Order with a notional value that is greater than the applicable designated maximum notional value Order size limit.

CFE is revising Rule 513A(d) to specifically provide that the limit order price reasonability checks risk control applies to Options. CFE will utilize this risk control to set limit order price reasonability percentage parameters by product which will be set forth in the rules governing the applicable product. Clearing members and TPHs will also have the ability to designate limit order price reasonability percentage parameters by EFID and Options product. The risk control rejects or cancels back to the sender any single leg Options buy order with a limit price that is equal to or more than the applicable designated percentage above the prevailing best offer and any single leg Options sell order with a limit price that is equal to or more than the applicable designated percentage below the prevailing best bid. This risk control also rejects or cancels back to the sender any buy order for an Options spread with a limit price that is equal to or more than the applicable designated percentage above the prevailing best offer in the applicable spread as reflected by any pending opposite side Spread Orders and the Implied Spread Offer for that spread and any sell order for an Options spread with a limit price that is equal to or more than the applicable designated percentage below the prevailing best bid in the applicable spread as reflected by any pending opposite side Spread Orders and the Implied Spread Bid for that spread.

CFE is amending Rule 513A(e) to specifically provide that the Market Order price reasonability checks risk control applies to Options. CFE will utilize this risk control to set Market Order price reasonability percentage parameters and Threshold Widths by Options product for Options products in which Market Orders may be submitted, which will be set forth in the rules governing the applicable product. If an Options Market Order is partially executed at an initial price level, the risk control rejects or cancels back to the sender any remaining portion of the Market Order that would execute at a price that is more than the applicable designated percentage above or below that initial price level. Additionally, the risk control rejects or cancels back to the sender any portion of an Options Market Order that would execute at a price level that is outside of the applicable Threshold Width.

CFE is revising Rule 513A(e) to add provisions to address how the CFE System will handle Market Orders in no-bid (offer) series in Options products in which Market Orders may be submitted. These Market Orders will be handled in the following manner:

(i) In the event that the CFE System receives a sell Market Order in an Options series that is in an open state for trading and in which there is currently no bid or the current best bid has a value of zero:

(a) if the current best offer in the Options series is less than or equal to a designated minimum offer price level that is set forth in the rules governing the applicable Options product, the CFE System converts the Market Order to a Limit Order with a limit price equal to the minimum increment for the Options product; and

(b) if the current best offer in the Options series is greater than a designated minimum offer price level set forth in the rules governing the applicable Options product, the Market Order is rejected or canceled back to the sender by the CFE System.

(ii) In the event that a sell Market Order received in an Options series when it is in an open state for trading partially executes against one or more resting bids resulting in no current bid because the previously existing quantity to buy has been exhausted through execution against the Market Order, the remaining portion of the Market Order is treated in the same manner as a sell Market Order that is received when an Options series is in an open state for trading and there is no current bid.

(iii) In the event that the CFE System receives a buy Market Order in an Options series that is in an open state for trading and in which there is currently no offer or the current best offer has a value of zero, the Market Order is rejected or canceled back to the sender by the CFE System.

(iv) These Options Market Order risk controls do not apply to Quotes.

CFE is revising Rule 513A(f) to add three Options Spread Order price reasonability checks. These risk controls include an all buy legs Options Spread Order price reasonability check, a debit/credit Options Spread Order price reasonability check, and an acceptable price range Options Spread Order price reasonability check.

Under the all buy legs Options Spread Order price reasonability check, an Options Spread Order is rejected or canceled back to the sender by the CFE System if all of the legs of the Options Spread Order are to buy and the Options Spread Order has: (i) a price of zero; (ii) a net credit price that exceeds a buffer amount designated by the Exchange by spread type and Options product (which may be set at zero or another amount); or (iii) a net debit price that is less than the number of individual legs in the spread multiplied by the minimum increment for the individual legs of spread trades in the applicable Options product. The Exchange shall disseminate to TPHs in a form and manner determined by the Exchange the buffer amounts for this price reasonability check.

Under the debit/credit Options Spread Order price reasonability check, an Options Spread Order is rejected or canceled back to the sender by the CFE System if the Options Spread Order or an unexecuted portion of an Options Spread Order: (i) is for a debit strategy with a net credit price that exceeds a buffer amount designated by the Exchange by spread type and Options product (which may be set at zero or another amount); or (ii) is for a credit strategy with a net debit price that exceeds a buffer amount designated by the Exchange by spread type and Options product (which may be set at zero or another amount). The rule provisions further define what a debit strategy and credit strategy are for this purpose. The Exchange shall disseminate to TPHs in a form and manner determined by the Exchange the buffer amounts for this price reasonability check.

Under the acceptable price range Options Spread Order price reasonability check, an Options Spread Order is rejected or canceled back to the sender by the CFE System if the Options Spread Order: (i) is for a Vertical Spread, a true Butterfly Spread, or a Box Spread; and (ii) has a limit 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 designated by the Exchange by spread type and Options product (which may be set at zero or another amount). The rule provisions further define what the maximum and minimum possible values of these spread types are for this purpose. The Exchange shall disseminate to TPHs in a form and manner determined by the Exchange the buffer amounts for this price reasonability check.

CFE is amending Rule 513A(h) to specifically provide that Order rate limits may be applicable to Options. An Order rate limit is a maximum number of Orders or Orders of a particular type that may be received by the CFE System per time interval through a particular type of match capacity allocation. If the applicable Order rate limit is exceeded, the CFE System rejects or cancels back to the sender those Orders received by the CFE System during the applicable time interval after the Order rate limit is reached during that time interval.

CFE adding new Rule 513A(j) in order to provide for an Options risk monitor mechanism that includes the following primary components:

(i) TPHs will have the ability to designate the following Options risk monitor mechanism parameters by EFID and Options product:

(a) number of contracts executed (“volume”);

(b) notional value of executions (“notional”), which the CFE System calculates for purposes of the Options risk monitor mechanism by multiplying the number of contracts executed by the Options Premium to determine the notional value of each Options execution;

(c) number of executions (“count”); and

(d) number of contracts executed as a percentage of number of contracts outstanding within an Exchange-designated time period or during a trading day, as applicable (“percentage”), which the CFE System determines for purposes of the Options risk monitor mechanism by calculating the percentage of outstanding contracts that executed on each side of the market during the time period or trading day, as applicable, and then summing the series percentages on each side of the market.

(ii) TPHs may establish Options risk monitor mechanism parameters over a time period established by the TPH (“interval limit”) and on an absolute basis for a trading day (“absolute limit”).

(iii) Clearing Members will have the ability to designate absolute notional limits by EFID and Options product.

(iv) When the CFE System determines that a volume, notional, count, or percentage limit designated by a TPH or a Clearing Member has been reached within an interval or absolute limit for an EFID and Options product, the CFE System will trigger the Options risk monitor mechanism which cancels all Orders residing in the CFE System for the applicable EFID and Options product and rejects or cancels back to the sender any new Orders for the applicable EFID and Options product until the counting program resets.

(v) The CFE System will not accept new Orders from a TPH after a volume, notional, count, or percentage limit designated by a TPH has been reached within an interval or absolute limit for an EFID and Options product. This block on the acceptance of new Orders shall remain in place until the earlier of the end of the Business Day on which the block is activated or when the TPH submits an electronic instruction to the CFE System to reset the count for the applicable limit in a form and manner prescribed by the Exchange.

(vi) The CFE System will not accept new Orders from a TPH after an absolute notional count limit designated by a Clearing Member has been reached for an EFID and Options product. This block on the acceptance of new Orders shall remain in place until the earlier of the end of the Business Day on which the block is activated or until the Trade Desk resets the count for the applicable limit after receiving a request from the Clearing Member to do so.

CFE adding new Rule 513A(k) in order to provide for a duplicate Order protection risk control under which TPHs will have the ability to enable duplicate Order protection by match capacity allocation for both Futures and Options Orders. When duplicate Order protection is enabled for a match capacity allocation:

(i) If the CFE System receives through the match capacity allocation a specified number of duplicate Orders during a specified time interval in a Futures or Options Contract that have the same EFID, side, price, and quantity, the CFE System will:

(a) reject or cancel back to the sender additional duplicate Orders submitted through the match capacity allocation until the CFE System receives through the match capacity allocation an Order in the Futures or Options Contract with a different EFID, side, price, or quantity, at which time this risk control is reset; or

(b) reject all incoming Orders (except Cancel Orders) submitted through the match capacity allocation for that EFID until the Trade Desk resets this risk control after receiving a request from TPH to do so.

(ii) The TPH will have the ability to designate the number of duplicate Orders and the applicable time interval in which that number of duplicate orders will trigger one of the outcomes specified above and to designate which of these occurs if the duplicate Order protection risk control is triggered.

(iii) The triggering of the duplicate Order protection risk control does not prevent the submission of Cancel Orders to the CFE System and does not apply to Quotes.

CFE is updating the rule provisions relating to the kill switch risk control, which are now included in Rule 513A(l), to specifically provide that the kill switch may be utilized for Options. CFE is also updating these rule provisions to provide that the party activating a kill switch shall have the ability to designate whether the kill switch is applicable to all products, to all Futures products, or to all Options products. This risk control allows CFE, Clearing Members, and TPHs to activate a kill switch by EFID. If a kill switch is activated, the CFE System cancels all Orders residing in the CFE System for the applicable EFID for all products, all Futures products, or all Options products, as designated by the party activating the kill switch. The party activating a kill switch also has the option to have the kill switch cause the CFE System to reject or cancel back to the sender any new Orders for the applicable EFID for all products, all Futures products, or all Options products, as designated by the party activating the kill switch. TPHs also have the ability to utilize mass cancel requests, purge requests, and the Portal (an internet-based interface component of the CFE System made available to TPHs by the Exchange to manage Orders) to cancel Orders, including Options Orders.

CFE is updating the rule provisions relating to disconnection risk controls, which are now included in Rule 513A(m), to specifically provide that disconnection risk controls apply to Options. These risk controls include cancel on match capacity allocation disconnect functionality (which applies when there is a disconnection from a match capacity allocation), cancel on matching engine disconnect functionality (which applies when there is a loss of connectivity between a match capacity allocation and the CFE System matching engine), and cancel on drop disconnect functionality (which applies when all of the drop ports for receipt of execution report messages associated with a match capacity allocation are disconnected from the CFE System). TPHs may either activate these risk controls by match capacity allocation or they are automatically enabled by match capacity allocation depending on the type of match capacity allocation and risk control . As a general matter, when one of these risk controls is activated, the CFE System cancels either all Day Orders or all Orders as designated by the TPH.

CFE is updating the rule provisions relating to the cancel on reject risk control, which are now included in Rule 513A(n), to specifically provide that the cancel on reject risk control applies to Options. TPHs have the ability to activate this risk control by order match capacity allocation and by quoting match capacity allocation with respect to single Orders and this risk control is automatically enabled for each quoting match capacity allocation with respect to Quotes. This risk control cancels a resting single Order if the CFE System rejects or cancels back to the sender a Cancel Order or Cancel Replace/Modify Order relating to the resting Order. Similarly, this risk control cancels an existing bid or offer established by a previous Quote if the CFE System rejects or cancels back to the sender a replacement Quote to cancel or modify the existing bid or offer and the CFE System does not reject or cancel back to the sender the Bulk Message which contains the replacement Quote.

CFE Policy and Procedure I (Options Spread Types) – CFE is adding Policy and Procedure ("P&P") I to the Policies and Procedure Section of the CFE Rulebook (which is currently reserved) to supplement Rule 406A by providing further description and examples of the common Options spread types permitted under Rule 406A. The example spreads described in P&P I include a Long Call Calendar Spread, Long Put Calendar Spread, Bull Call Vertical Spread, Bear Put Vertical Spread, Bull Call Diagonal Spread, Bear Put Diagonal Spread, Strategy 1 Variation of a Long Call Calendar Spread, Strategy 2 Variation of a Long Put Calendar Spread, Strategy 3 Variation of a Bull Call Vertical Spread, Strategy 4 Variation of a Bear Put Vertical Spread, Strategy 5 Variation of a Bull Call Diagonal Spread, Strategy 6 Variation of a Bear Put Diagonal Spread, Long Call Underlying Calendar Spread, Long Put Underlying Calendar Spread, Call Butterfly, Put Butterfly, Skewed Call Butterfly, Skewed Put Butterfly, and Box Spread. Policy and Procedure I also sets forth any limitations that are applicable regarding the extent to which an Options spread type may be utilized for a particular Options product.

CFE P&P III (Resolution of Error Trades) – CFE is amending P&P III to add various provisions relating specifically to Options and to include some additional language to further clarify the existing provisions of P&P III as they currently relate to Futures or generally apply.

The primary additional provisions relating to Options include the following:

(i) CFE is revising P&P III to provide that the theoretical value of an Option, as determined by the Exchange, is one of the factors that the CFE Trade Desk may consider in determining what the true market price for the Option was immediately before the potential error trade occurred.

(ii) CFE is adding the following provisions to P&P III relating to an Options trade that occurs outside of the "no bust range" for the relevant Contract.

(a) The Trade Desk is authorized in its sole discretion to adjust an Options error trade that was outside the "no bust range" for the relevant Contract, with the following exception. If the adjustment of an Options error trade involving the execution of a Limit Order with a Customer Type Indicator Code of 4 would result in an adjusted trade price for the transaction that is greater than the limit price of the Limit Order if it was an Order to buy or that is less than the limit price of the Limit Order if it was an Order to sell, the Trade Desk will not adjust the trade and instead is authorized in its sole discretion to bust the trade.

(b) If the Trade Desk determines that the trade price of a potential Options error trade was outside the "no bust range" for the relevant Contract, the Trade Desk will review the circumstances surrounding the trade to determine whether the trade should be adjusted or whether in the circumstance described in the preceding paragraph the trade should be busted. The factors that may be considered by Trade Desk in this connection include: the market conditions immediately before and after the trade occurred; the volatility of the market; the prices of related instruments in other markets; whether one or more parties to the trade believe that the trade was made at a valid price; and any other factors that the Trade Desk may deem relevant. The Trade Desk shall make its decision as promptly as practicable. The decision shall be final.

(c) If a trade is adjusted, the Trade Desk will adjust the price of the transaction to a price that is equal to the highest level of the "no bust range" if the original trade price was above that level or will adjust the price of the transaction to a price that is equal to the lowest level of the "no bust range" if the original trade price was below that level. If a trade is busted, the Trade Desk will cancel the trade.

(d) As with a Futures trade, if an Options trade is not adjusted or busted, the parties to the trade cannot reverse the trade, except in specified circumstances currently described in P&P III, and cannot "trade out" of the trade by entering into a pre-arranged offsetting transaction, except pursuant to CFE rule provisions relating to pre-execution discussions.

The primary clarifying revision to P&P III is to further clarify that references P&P III and in the rules governing each Contract to consideration of all relevant factors in relation to the determination of the theoretical net price of a Spread Order and the true market price for a Contract are non-exclusive. Specific factors enumerated in P&P III and in the rules governing each Contract in relation to those determinations are examples of factors that may be considered by the Trade Desk in making those determinations. The Trade Desk may consider other factors as well, such as, for example, the market conditions at the time of the trade, and may determine which factor or factors are relevant for consideration in each determination based upon the facts and circumstances in that particular instance.

Non-Substantive and Technical Rule Updates

CFE is also making various non-substantive and technical rule provision updates to various rules, including the rules noted above, in connection with further addressing Options within CFE's rules. These updates include revisions to make clear which rule provisions apply to Futures and which rule provisions apply to Options; changes to the numbering of rule provisions in connection with adding and amending various rule provisions; related updates to rule provision cross-references; minor corrections to rule text; and the inclusion of technical rule provisions applicable to Options and

Futures which are substantially similar to existing rule provisions or which further describe the technical operation of the mechanisms that are described in the rule provisions discussed above.

Statutory Basis

CFE believes that the Amendment is consistent with the Designated Contract Market ("DCM") Core Principles under Section 5 of the Act. In particular, CFE believes that the Amendment is consistent with:

(i) DCM Core Principle 2 (Compliance with Rules) because CFE rules include existing prohibitions against market manipulation and fraudulent, non-competitive, and disruptive trading practices that will apply to trading activity in the Options and CFE will conduct monitoring and surveillance of trading in Options for compliance with CFE rules;

(ii) DCM Core Principle 4 (Prevention of Market Disruption) in that the risk controls and error trade provisions applicable to Options provided for in the Amendment are intended to reduce the potential risk of price distortions and market disruptions;

(iii) DCM Core Principle 5 (Position Limitations or Accountability) in that the Amendment addresses how CFE's rule provisions relating to position limits and position accountability apply in two situations that could arise in relation to Options that would not arise in relation to Futures in light of the differences between Options and Futures;

(iv) DCM Core Principle 7 (Availability of General Information) because the Amendment describes in CFE's rules the manner of operation of the CFE System related to trading in Options;

(v) DCM Core Principle 9 (Execution of Transactions) in that the CFE System rules for the execution of Options Orders provide for a competitive, open, and efficient market and mechanism for executing transactions that protects the price discovery process of trading on CFE's centralized market;

(vi) DCM Core Principle 11 (Financial Integrity of Transactions) because the Amendment provides for automated pre-trade risk controls that enable CFE Clearing Members to facilitate the management of their financial risk in relation to the trading activity in Options by the TPHs for which they act as a Clearing Member;

(vii) DCM Core Principle 12 (Protection of Markets and Market Participants) in that CFE rules include existing prohibitions against abusive practices, including abusive practices committed by a party acting as an agent for a participant, that will apply in relation to Options; and

(viii) DCM Core Principle 20 (System Safeguards) in that, among other things, CFE will have conducted extensive internal testing as well as testing with external parties prior to the implementation of the changes to CFE's current trading system and the new trading system functionality that CFE is implementing in order accommodate the trading of Options on CFE.

CFE believes that the impact of the Amendment will be beneficial to the public and market participants. CFE sought and received input from TPHs in a number of ways regarding the enhancements that CFE is making to the CFE System to accommodate trading in Options and took that input into consideration in the design and implementation of the changes to the CFE System that are reflected in the rule changes included in the Amendment. CFE is not aware of any substantive opposing views to the implementation of the changes to the CFE System or the Amendment. CFE hereby certifies that the Amendment complies with the Act and the regulations thereunder. CFE further certifies that CFE has posted a notice of pending certification with the Commission and a copy of this submission on CFE's website (http://www.cboe.com/us/futures/regulation/rule_filings/cfe/) concurrent with the filing of this submission with the Commission.

Contact Information

Questions regarding this submission may be directed to Arthur Reinstein at (312) 786-7570 and Shane Wilkerson at (484) 798-9350. Please reference our submission number CFE-2023-002 in any related correspondence.

Cboe Futures Exchange, LLC

/s/ Arianne Adams

By: Arianne Adams
Senior Managing Director

EXHIBIT 1

Changes to
Cboe Futures Exchange, LLC Rules

(Additions are shown in double-underlined text and
deletions are shown in ~~stricken~~ text)

* * * * *

CHAPTER 1
DEFINITIONS

* * * * *

Class of Options

The term "Class of Options" means Options of the same category (*e.g.*, traditional or binary) covering the same underlying Future ~~of~~or commodity.

Clearing Corporation

The term "Clearing Corporation" means The Options Clearing Corporation, a Delaware corporation (including its successors), or such other clearing organization as the Exchange may designate in the future to provide clearing services with respect to any or all of its Contracts. The Options Clearing Corporation may also be referred to as "OCC".

* * * * *

Contract

The term "Contract" means any Future, Option or Security Future offered for trading on the Exchange. Each single leg Futures expiration and each single leg Options series is a separate Contract. Each Futures spread and each Options spread for a product is treated like a separate Contract from a system perspective. If TAS transactions are permitted in a product, each TAS single leg expiration and TAS spread for the product is treated like a separate Contract from a system perspective.

* * * * *

Option

The term "Option" means any commodity option, as that term is defined in Commission Regulation § 1.3~~(hh)~~, from time to time traded subject to the Rules of the Exchange and issued or subject to issuance by the Clearing Corporation pursuant to the Rules of the Clearing Corporation.

* * * * *

Pre-Opening Notice

The term "Pre-Opening Notice" has the meaning set forth in Rule ~~405A(a)(iii)(C)(1)~~ Rule 405A(a)(iv)(E)(1).

* * * * *

Related Options Product

The term "Related Options Product" means an Options product offered for trading on the Exchange that overlies a Futures product offered for trading on the Exchange, in that the Futures product serves as the underlying interest for the Options product.

* * * * *

Spread Processing Sequence

The term "Spread Processing Sequence" ~~has the meaning set forth in Rule 405A(a)(iii)(B)~~ means either the Futures Spread Processing Sequence as defined by Rule 405A(a)(iv)(B) or the Options Spread Processing Sequence as defined by Rule 405A(a)(iv)(D), as applicable.

* * * * *

403. Order Entry and Maintenance of Front-End Audit Trail Information

(a) All Orders shall be entered into the CFE System by electronic transmission through a CFE Workstation, and the Exchange shall maintain an electronic record of those entries. Each Trading Privilege Holder (including its Authorized Traders) shall be responsible in every respect for any and all Orders entered by it (including its Related Parties) and for compliance by its Related Parties with this Rule 403. Prior to entering any Order, the relevant Related Party shall connect to the CFE System in a form and manner prescribed by the Exchange.

(b) Each single Order other than a Cancel Order or Cancel Replace/Modify Order must contain the following information: (i) whether such Order is a buy or sell Order; (ii) Order type; (iii) price or premium (if the Order is not a Market Order); (iv) quantity; (v) in the case of Orders for Futures, Contract identifier or product and contract expiration(s); (vi) in the case of Orders for Options, either Contract identifier or each of strike price(s), type(s) of option(s) (put or call), expiration(s) and underlying Futures Contract(s); (vii) Client Order ID; (~~vii~~viii) EFID; (~~viii~~ix) Order Entry Operator ID; (~~ix~~x) Clearing Corporation origin code (C for Customer or F for Firm); (~~x~~xi) Customer Type Indicator code; (~~xi~~xii) manual Order indicator; (~~xii~~xiii) account designation (which shall be the account number of the account of the party for which the Order was placed, except that a different account designation may be included in the case of a bunched Order processed in accordance with Rules 406(g) and 605 or in the case of an Order for which there will be a post-trade allocation of the resulting trade(s) to a different clearing member); ~~(xiii) in the case of Orders for Options, either Contract identifier or each of strike price, type of option (put or call) and expiration;~~ and (xiv) such additional information as may be prescribed from time to time by the Exchange.

(c) - (i) No change.

404. Acceptable Orders

(a) *Single Orders*. Any Trading Privilege Holder may submit the following types of single Orders to the CFE System in a form and manner prescribed and provided by the Exchange. Each of these Order types may be submitted in a Futures product or an Options product unless otherwise specified. A "single Order" refers to an Order that is submitted to the CFE System through a message type that may include one Order in each message. A single Order may not be submitted through a Bulk Message and does not include a Quote.

(i) *Market Order*. A "Market Order" is an Order to buy or sell a stated number of Contracts at the best price(s) available on the Exchange and to cancel any remaining portion of the Order that is not executed upon receipt of the Order.

(ii) *Limit Order*. A "Limit Order" is an Order to buy or sell a stated number of Contracts at a specified limit price, or at a better price.

(iii) *Spread Order*. A "Spread Order" is an Order to simultaneously purchase, sell or purchase and sell at least two Contracts in a form permitted by the Exchange. A "strip" is a type of Spread Order that is exclusively for the purchase or exclusively for the sale of at least two Contracts in a form permitted by the Exchange. A Spread Order must be a Limit Order and may not be submitted as a Market Order, Stop Limit Order or Fill or Kill Order.

(iv) *Stop Limit Order*. A "Stop Limit Order" is an Order to buy or sell when a Contract trades at a specified trigger price. A Stop Limit Order to buy becomes a Limit Order to buy a stated number of Contracts at a specified limit price, or at a better price, when the relevant Contract trades at or above the trigger price of the Order. A Stop Limit Order to sell becomes a Limit Order to sell a stated number of Contracts at a specified limit price, or at a better price, when the relevant Contract trades at or below the trigger price of the Order. If an Order is traded in a sequence of transactions at multiple price points and one of those price points is the trigger price for a Stop Limit Order, the Stop Limit Order is not triggered until the sequence of transactions with that Order is concluded (including if subsequent transactions occur in that sequence after the transaction with that Order at the trigger price). Block Trades and Exchange of Contract for Related Position transactions do not trigger Stop Limit Orders.

A Stop Limit Order is not entered into the Order book or reflected in the disseminated depth of the Order book until the Stop Limit Order is triggered when the relevant Contract trades at the trigger price as described above. When a Stop Limit Order is triggered, its time priority in the Order Book in relation to Limit Orders is based on the trigger time of the Stop Limit Order and not its entry time. If multiple Stop Limit Orders are triggered at the same time, the time priority as between those Stop Limit Orders is based on the price of the transaction that triggered each Stop Limit Order and its entry time.

A Stop Limit Order may not be submitted in an Options product.

(v) *Cancel Order*. A "Cancel Order" is an Order that cancels, partially or fully, an existing individual buy or sell Order. A Cancel Order shall also be deemed to include a mass cancel, purge request, Portal cancel request or Kill Switch request submitted through the use of CFE System functionality that enables the cancellation of all or a subset of a Trading Privilege Holder's pending Orders with a single message.

(vi) *Cancel Replace/Modify Order*. A "Cancel Replace/Modify Order" is an Order to cancel a buy or sell Order and replace it with a new Order. A Cancel Replace/Modify Order may only be used to modify certain Order information fields designated by the Exchange. The replacement Order retains the other Order information from the existing Order. In order to modify other Order information fields, a Cancel Order must be used to cancel the existing Order and a separate new Order must be submitted.

(vii) *Time in Force*. An Order entered into the CFE System, other than a Cancel Order, is required to have one of the following time in force conditions:

(A) *Day Order*. A "Day Order" is an Order for any Contract that, unless executed or canceled, remains as an executable Order in the CFE System until the end of the Business Day on which it is entered. The end of the Business Day for this purpose is when Trading Hours for the applicable Contract end on that Business Day.

(B) *Good-'til-Canceled Order*. A "Good-'til-Canceled Order" is an Order that, unless executed, remains in the CFE System until it is canceled or the Contract to which it relates expires, whichever occurs first.

(C) *Good-'til-Date Order*. A "Good-'til-Date Order" is an Order that, unless executed, remains in the CFE System until the earlier to occur of the date and time specified in the Order, the Order is canceled or the Contract to which the Order relates expires.

(D) *Immediate or Cancel Order*. An "Immediate or Cancel Order" is an Order with respect to which any remaining portion of the Order that is not executed upon receipt is canceled. A simple Futures Immediate or Cancel Order may include a specified minimum quantity. If a minimum quantity is included, a Futures simple Immediate or Cancel Order will be canceled in its entirety if the specified minimum quantity is not executed upon receipt of the Order. A Stop Limit Order may not be submitted as an Immediate or Cancel Order.

(E) *Fill or Kill Order*. A "Fill or Kill Order" is an Order which is canceled unless executed in its entirety upon receipt of the Order. A Spread Order and Stop Limit Order may not be submitted as a Fill or Kill Order.

(b) *Bulk Messages and Quotes*. Any Trading Privilege Holder may submit Bulk Messages and Quotes to the CFE System in a form and manner prescribed and provided by the Exchange.

(i) *Bulk Message*. A "Bulk Message" is a message type that may be utilized to submit multiple Quotes to the CFE System in a single message. Bulk Messages are subject to the following parameters:

(A) The Exchange may designate a maximum number of Quotes that may be submitted in a Bulk Message.

(B) Subject to the exceptions ~~below, a~~in Rule 404(b)(i)(C):

(1) A Bulk Message may be utilized to submit Quotes in multiple Contracts in the same Futures product with the same futures trading symbol root and may not be utilized to submit Quotes for different futures trading symbol roots in the same ~~Exchange~~Futures product~~ or in different Exchange products~~.

For example, a single Bulk Message may not be utilized to submit Quotes in non-TAS Cboe Volatility Index futures expirations (which have a VX trading symbol root) and in TAS Cboe Volatility Index futures expirations (which have a VXT trading symbol root) since these Quotes would be for different futures trading symbol roots.

(2) A Bulk Message may be utilized to submit Quotes in multiple Contracts in the same Options product that have the same initial identifier within their options trading symbols and may not be utilized to submit Quotes for Options Contracts in the same Options product with different initial identifiers within their options trading symbols.

(C) The ability to utilize a Bulk Message to submit Quotes in multiple Contracts in the same product with the same futures trading symbol root or the same initial identifier within an options trading symbol root is subject to the following exceptions:

(1) A Bulk Message may be utilized to enter, modify or cancel only one bid and/or one offer in a Contract. A Bulk Message may not be utilized to enter, modify or cancel bids in a Contract at multiple price levels and/or offers in a Contract at multiple price levels. In order to simultaneously maintain bids at multiple price levels and/or offers at multiple price levels in a Contract through the use of Bulk Messages, the Bulk Messages to enter, modify or cancel the bids and/or offers at the multiple price levels must be submitted with a different EFID or through a different quoting match capacity allocation for each price level.

(2) Any Bulk Message submitted during a queuing period may not be utilized to enter, modify or cancel a bid and/or offer in more than one TAS single leg expiration. In order to utilize Bulk Messages to enter, modify or cancel bids and/or offers in more than one TAS single leg expiration during a queuing period, multiple Bulk Messages must be used.

(~~C~~D) The Exchange may allow for the use of different types of Bulk Messages. For example, the Exchange may allow for Bulk Message types with respect to which:

(1) the information for certain information fields designated by the Exchange is provided as a default at the match capacity allocation level instead of being provided in each Bulk Message;

(2) the Bulk Message does not include certain non-required information fields; and/or

(3) the Bulk Message uses a smaller format for certain information fields.

(ii) No change.

* * * * *

405A. Opening Process

(a) *Queuing Period*.

(i) The Exchange shall designate a period of time that precedes the opening of trading in a Contract during which the CFE System is in a queuing state. During the queuing state, the CFE System accepts Orders, Cancel Orders and Cancel Replace/Modify Orders in that Contract, subject to the limitations set forth in paragraph (h) below.

(ii) If TAS transactions are permitted in a Futures product, a queuing state for TAS single leg Futures Contract expirations and TAS Futures spreads in that product at the beginning of a Business Day or that otherwise follows immediately after the CFE System is in a suspended state for that Futures product commences at the time designated by the Exchange as the start time of that queuing period plus a randomized time period from zero to three seconds. Regardless of whether or not TAS transactions are permitted in a Futures product, a queuing state for non-TAS single leg Futures Contract expirations and non-TAS Futures spreads in that Futures product at the beginning of a Business Day or that otherwise follows immediately after the CFE System is in a suspended state for that Futures product commences at the time designated by the Exchange as the start time of that queuing period plus a randomized time period from three to six seconds.

(iii) If a Related Options Product exists for a Futures product, a queuing state for single leg Options series and Options spreads in that Related Options Product at the beginning of a Business Day or that otherwise follows immediately after the CFE System is in a suspended state for that Related Options Product commences immediately following the commencement of the queuing states for the non-TAS single leg Futures Contract expirations and non-TAS Futures spreads in the Futures product, as further described in paragraph (a)(iv) below.

(iv)~~(iii)~~ At the commencement of a queuing state for non-TAS single leg Futures Contract expirations and non-TAS Futures spreads in a product and at the commencement of a queuing state for any TAS single leg Futures Contract expirations and TAS Futures spreads in a product, the following sequence of events occurs with respect to the applicable group of instruments:

(A) The CFE System moves each single leg Futures Contract expiration for a product into a queuing state in sequence by nearest to farthest expiration. Each of these single leg Futures Contract expirations moves into a queuing state in the foregoing sequence one after the next and not at fixed time intervals. This sequence is referred to as the "Futures Single Leg Processing Sequence".

(B) The CFE System next moves each Futures spread into a queuing state based on the following criteria in order of priority, assuming spread legs are arranged in nearest to furthest expiration left-to-right:

(1) lowest number of legs (e.g., 1:1 before 1:1:1);

(2) lowest total ratio sum (e.g., 1:1:1 before 1:2:1);

(3) lowest left-to-right cumulative ratio sum, stopping at the first ratio component from left-to-right when the cumulative sums differ between spreads (e.g., 1:2 before 2:1);

(4) alphabetical order, assigning each buy leg "B" and each sell leg "S" (e.g., BBBB before BSBS before BSSB); and

(5) earliest left-to-right leg expiration, stopping at the first leg component from left-to-right when the expirations differ between legs (e.g., DEC-MAR-JUN before DEC-MAR-SEP).

Each of these Futures spreads moves into a queuing state in the foregoing sequence one after the next and not at fixed time intervals. This sequence is referred to as the "Futures Spread Processing Sequence".

(C) If a Related Options Product exists for the Futures product, the CFE System next moves each single leg Options series for the Related Options Product into a queuing state based on the following criteria in order of priority:

(1) earliest expiration of underlying Future (e.g., an Option with an underlying Future that has a January expiration before an Option with an underlying Future that has a February expiration);

(2) earliest Options expiration (e.g., a January expiration before a February expiration);

(3) most in-the-money, where calls with lower strike

prices are more in-the-money than calls with higher strike prices and puts with higher strike prices are more in-the-money than puts with lower strike prices (e.g., a call with a 20 strike price before a call with a 25 strike price with the underlying Future trading at 30, a put with a 40 strike price before a put with a 35 strike price with the underlying Future trading at 30, and a call with a 20 strike price before a put with a 35 strike price with the underlying Future trading at 30); and

(4) a call before a put (e.g., if the above attributes result in the same order of priority between a call and a put, the call goes before the put).

Each of these single leg Options series moves into a queuing state in the foregoing sequence one after the next and not at fixed time intervals. This sequence is referred to as the "Options Single Leg Processing Sequence".

(D) If a Related Options Product exists for the Futures product, the CFE System next moves each Options spread for the Related Options Product into a queuing state based on the following criteria in order of priority:

(1) lowest number of legs (e.g., 1:1 before 1:1:1);

(2) highest sum of strike prices (e.g., strike price total of 50 before strike price total of 40);

(aa) for the same sum of strike prices, higher strike price before lower strike price, stopping at the first strike price from left-to-right when the strike prices differ between spreads (e.g., 25-10 before 20-15);

(bb) for the same sum of strike prices and the same strike prices left to right, calls before puts, assigning each call "C" and each put "P" (e.g., CP before PC)

(3) lowest total ratio sum (e.g., 1:1:1 before 1:2:1);

(4) lowest left-to-right cumulative ratio sum, stopping at the first ratio component from left-to-right when the cumulative sums differ between spreads (e.g., 1:2 before 2:1);

(5) alphabetical order for buy and sell legs, assigning each buy leg "B" and each sell leg "S" (e.g., BBBB before BSBS before BSSB); and

(6) earliest left-to-right leg expiration, stopping at the first leg component from left-to-right when the expirations differ between legs (e.g., DEC-MAR-JUN before DEC-MAR-SEP); and

(7) numerical and alphabetical order by Contract

identifier (e.g., 0005df before 0005uo and 0005zR before 00063s).

Each of these Options spreads moves into a queuing state in the foregoing sequence one after the next and not at fixed time intervals. This sequence is referred to as the "Options Spread Processing Sequence".

(E)~~(C)~~ Once all single leg Futures Contract expirations~~ and all~~, Futures spreads, single leg Options series (if applicable) and Options spreads (if applicable) have moved into a queuing state:

(1) the CFE System disseminates, in the Futures Single Leg Processing Sequence, a notice of the commencement of the queuing state ("Pre-Opening Notice") for each single leg Futures Contract expiration;~~ and~~

(2) the CFE System next disseminates, in the Futures Spread Processing Sequence, a Pre-Opening Notice for each Futures spread;

(3) the CFE System next disseminates, in the Options Single Leg Processing Sequence, a Pre-Opening Notice for each single leg Options series (if applicable); and

(4) the CFE System next disseminates, in the Options Spread Processing Sequence, a Pre-Opening Notice for each Options spread (if applicable).

(v)~~(iv)~~ Orders accepted by the CFE System during a queuing state are not executable during a queuing state.

(vi)~~(v)~~ A queuing period is utilized when a Contract moves from a suspended state to an open state for trading. At the determination of the senior person in charge of the Trade Desk, a queuing period may or may not be utilized when a Contract moves from a halt state to an open state for trading.

(~~vi~~vii) During the time period between Exchange Business Days for a product, the entry into the CFE System of a non-TAS Order in that product prior to the time at which the CFE System disseminates the first Pre-Opening Notice under Rule 405A(a)(~~iii~~iv)(~~C~~E) for non-TAS Orders in that product is prohibited. The CFE System disseminates a Pre-Opening Notice for each non-TAS Contract and the first Pre-Opening Notice for a non-TAS Contract in a product is the Pre-Opening Notice that establishes the time at which non-TAS Orders may be submitted for all non-TAS Contacts in that product. Non-TAS Contracts in a product include non-TAS single leg Contract expirations and non-TAS spreads in that product. The provisions of this Rule 405A(a)(~~vi~~vii) do not apply to Cancel Orders for non-TAS Contracts submitted while the CFE System is in a suspended state between Exchange Business Days after the restart of the CFE System during the suspended state. The reference to Cancel Orders in the preceding sentence does not include reference to any types of Quote submissions.

(~~vii~~viii) As is set forth in Rule 404A(c): During the time period between

Exchange Business Days for a product, the entry into the CFE System of a TAS Order in that product prior to the time at which the CFE System disseminates the first Pre-Opening Notice under Rule 405A(a)(~~iii~~iv)(~~C~~E) for TAS Orders in that product is prohibited. The CFE System disseminates a Pre-Opening Notice for each TAS Contract, and the first Pre-Opening Notice for a TAS Contract in a product is the Pre-Opening Notice that establishes the time at which TAS Orders may be submitted for all TAS Contacts in that product. TAS Contracts in a product include TAS single leg Contract expirations and TAS spreads in that product.

(b) *Processing Order*. Unless unusual circumstances exist, the CFE System initiates the following opening process for each Exchange Futures product and any Related Options Product for that Futures product at the opening time for the Futures product. The opening process occurs in the following order:

(i) the CFE System matches simple Futures Orders, without regard for Match Trade Prevention, and determines an opening trade price for each single leg Futures Contract expiration for the Futures product pursuant to paragraph (c) below;

(ii) the CFE System next matches Futures Spread Orders with other Futures Spread Orders, without regard for matching between Futures Spread Orders and simple Futures Orders and for Match Trade Prevention, and determines an opening trade price for each Futures spread in the Futures product pursuant to paragraph (d) below;

(iii) if a Related Options Product exists for the Futures product, the CFE System next matches simple Options Orders in the Related Options Product, without regard for Match Trade Prevention, and determines an opening trade price for each single leg Options series for the Related Options Product pursuant to paragraph (c) below;

(iv) if a Related Options Product exists for the Futures product, the CFE System next matches Options Spread Orders in the Related Options Product with other Options Spread Orders in the Related Options Product, without regard for matching between Options Spread Orders and simple Options Orders and for Match Trade Prevention, and determines an opening trade price for each Options spread in the Related Options Product pursuant to paragraph (d) below;

(v)~~(iii)~~ the CFE System ~~next~~ disseminates for each single leg Futures Contract expiration ~~in the product~~, Futures spread, single leg Options series and Options spread an Open Trading Notice and all opening prints, if any~~,~~ ("Opening Disseminations"), following the determination of an opening trade price for the applicable Contract pursuant to paragraph (e) below;

~~(iv) the CFE System next disseminates for each spread in the product an Open Trading Notice and all opening prints for the spread trades and the individual leg trades that comprise the spread trades, if any, pursuant to paragraph (e) below;~~

(vi)~~(v)~~ following the Opening Disseminations for a single leg Futures Contract expiration, Futures spread, single leg Options series or Options spread, the CFE System ~~next~~ releases remaining ~~Spread~~ Orders ~~for spreads~~ in ~~an open state for trading~~the applicable single leg or spread Contract with executable quantity not executed as part of an opening trade, with potential matching between those ~~Spread~~Orders and other released Orders and ~~simple orders and~~with Match Trade Prevention in effect, pursuant to paragraph (f) below; and

(vii)~~(vi)~~ the CFE System next processes triggered Futures Stop Limit Orders pursuant to paragraph (g) below.

Any incoming Orders received by the CFE System during this opening process do not participate in the opening process and are processed after all of the above steps of the opening process have been completed.

(c) *Single Leg Contract ~~Expiration~~ Processing*. The opening process ~~addresses~~conducts the matching of simple Futures Orders for a Futures Product and the matching of simple Options Orders for a Related Options Product that are in the Order book at the commencement of the opening process and determines ~~an~~the opening trade ~~price~~prices for ~~each~~ single leg Futures Contract ~~expiration for a product~~expirations and single leg Options series in the following manner:

(i) If there are no bids and offers that are at the same price as each other or that are crossed with one another, there will be no opening trade.

(ii) If there is a bid and an offer or bids and offers that are at the same price as each other or that are crossed with one another, there will be one or more opening trades at a single opening trade price executed in the following manner:

(A) Orders with bids and offers that are at the same price as each other or that are crossed with one another will be matched at a single opening trade price in accordance with price-time priority, without regard for Match Trade Prevention. Price-time priority is used for this purpose regardless of whether a different allocation method otherwise applies to the applicable Contract, and pro rata priority or a trade participation right priority does not apply for this purpose.

(B) The opening trade price for these matched trades will be determined in the following manner:

(1) The opening trade price will be the price that maximizes the number of matched contracts.

(2) If multiple prices exist that maximize the number of matched contracts, the price among those prices which has the lowest absolute imbalance between total bid size and total offer size will be the opening trade price.

(3) If multiple prices exist that maximize the number of matched contracts and have the same absolute imbalance between total bid size and total offer size, the midpoint of the minimum and maximum of these multiple prices will be the opening trade price. If the midpoint is not at a minimum

increment for the applicable Contract, the midpoint will be rounded up to the nearest minimum increment for that Contract.

(iii) The opening bid and offer prices for a Contract are the highest remaining bid and lowest remaining offer following the completion of the matching of the bids and offers that are at the same price as each other or that are crossed with one another, if any.

(iv) Following the determination of the opening trade price and opening trade(s), if any, for a Contract, the Contract moves into an open state for trading.

(v) ~~The~~For a Futures product, the CFE System determines the opening trade price and opening trade(s), if any, for each single leg Futures Contract expiration for ~~a~~the Futures product and moves each of these Futures Contracts into an open state for trading in the Futures Single Leg Processing Sequence. For a Related Options Product, the CFE System determines the opening trade price and opening trade(s), if any, for each single leg Options series for the Related Options Product and moves each of these Options series into an open state for trading in the Options Single Leg Processing Sequence.

(vi) If the width between the opening bid and opening offer prices for a single leg Futures Contract expiration exceeds the applicable Threshold Width for the relevant Futures Contract, each spread containing that Futures Contract will remain in a queuing state and not be opened during the initial opening process, as further described in ~~paragraph~~ Rule 405A(~~d~~i) below.

(d) *Spread Processing*. ~~Following the matching of simple Orders and the determination of opening trade prices for single leg expirations for a product, the~~The opening process conducts the matching of Futures Spread Orders for ~~that product~~a Futures Product and the matching of Options Spread Orders for a Related Options Product that were in the Order book at the commencement of the opening process and determines the opening trade prices for Futures spreads and Options spreads in the following manner. A Futures spread will remain in a queuing state and the CFE System will not utilize the opening process set forth in this Rule 405A to open the Futures spread if the width between the opening bid and opening offer prices for any individual leg of the Futures spread exceeds the applicable Threshold Width for that individual leg. For all other Futures spreads for a product, the opening process determines an opening trade price for each of these Futures spreads in the following manner:

(i) For purposes of this process and otherwise, the terms "Implied Spread Bid", "Implied Spread Offer" and "Volume-Based Tie Breaker" ("VBTB") have the following definitions:

(A) Implied Spread Bid.

(1) The Implied Spread Bid for a spread is calculated by determining an implied net bid price for the spread using as inputs to the calculation the highest bid price for each individual leg of the spread to be bought and the lowest offer price for each individual leg of the spread to be sold and multiplying each of

those prices by the respective ratio of the individual leg to the other legs of the spread.

(2) In the event that there is no bid price for an individual leg of the spread to be bought, the Minimum Price for the product is used as the input to the Implied Spread Bid calculation in lieu of the highest bid price for that leg.

(3) In the event that there is no offer price for an individual leg of ~~the~~a Futures spread to be sold, the Maximum Price for the product is used as the input to the Implied Spread Bid calculation in lieu of the lowest offer price for that leg. In the event that there is no offer price for an individual leg of an Options spread to be sold, the price level that is one minimum increment above the current bid for the individual leg of the Options spread is used as the input to the Implied Spread Bid calculation in lieu of the lowest offer price for that leg.

(4) As a result, an Implied Spread Bid will always be deemed to exist.

(5) In the event that a Lower Price Limit is in effect for a Futures product, and the input to the Implied Spread Bid calculation for the highest bid price for an individual leg of a Futures spread to be bought is less than the Lower Price Limit, the Lower Price Limit for the Futures product is used instead as that input.

(6) In the event that an Upper Price Limit is in effect for a Futures product, and the input to the Implied Spread Bid calculation for the lowest offer price for an individual leg of a Futures spread to be sold is more than the Upper Price Limit, the Upper Price Limit for the Futures product is used instead as that input.

(B) Implied Spread Offer.

(1) The Implied Spread Offer for a spread is calculated by determining an implied net offer price for the spread using as inputs to the calculation the lowest offer price for each individual leg of the spread to be bought and the highest bid price for each individual leg of the spread to be sold and multiplying each of those prices by the respective ratio of the individual leg to the other legs of the spread.

(2) In the event that there is no offer price for an individual leg of ~~the~~a Futures spread to be bought, the Maximum Price for the product is used as the input to the Implied Spread Offer calculation in lieu of the lowest offer price for that leg. In the event that there is no offer price for an individual leg of an Options spread to be bought, the price level that is one minimum

increment above the current bid for the individual leg of the Options spread is used as the input to the Implied Spread Bid calculation in lieu of the lowest offer price for that leg.

(3) In the event that there is no bid price for an individual leg of the spread to be sold, the Minimum Price for the product is used as the input to the Implied Spread Offer calculation in lieu of the highest bid price for that leg.

(4) As a result, an Implied Spread Offer will always be deemed to exist.

(5) In the event that an Upper Price Limit is in effect for a Futures product, and the input to the Implied Spread Offer calculation for the lowest offer price for an individual leg of a Futures spread to be bought is more than the Upper Price Limit, the Upper Price Limit for the Futures product is used instead as that input.

(6) In the event that a Lower Price Limit is in effect for a Futures product, and the input to the Implied Spread Offer calculation for the highest bid price for an individual leg of a Futures spread to be sold is less than the Lower Price Limit, the Lower Price Limit for the Futures product is used instead as that input.

(C) VBTB. The VBTB for a spread is the midpoint between the Implied Spread Bid and the Implied Spread Offer rounded up to the nearest minimum increment.

(ii) If there are no bids and offers that are at the same price as each other or that are crossed with one another, there will be no opening trade.

(iii) If there is a bid and an offer or bids and offers that are at the same price as each other or that are crossed with one another, there will be one or more opening trades at a single opening trade price executed in the following manner:

(A) Orders with bids and offers that are at the same price as each other or that are crossed with one another will be matched at a single opening trade price in accordance with price-time priority, without regard for matching between Spread Orders and simple Orders and for Match Trade Prevention. Price-time priority is used for this purpose regardless of whether a different allocation method otherwise applies to the applicable spread, and pro rata priority or a trade participation right priority does not apply for this purpose.

(B) The opening trade price for these matched trades will be determined in the following manner:

(1) The opening trade price will be the price that maximizes the number of matched contracts.

(2) If multiple prices exist that maximize the number of matched contracts, the price among those prices which has the lowest absolute imbalance between total bid size and total offer size will be the opening trade price.

(3) If multiple prices exist that maximize the number of matched contracts and minimize the absolute imbalance between total bid size and total offer size, and the VBTB is within the range of prices that maximizes the number of matched contracts and minimizes the absolute imbalance between total bid size and total offer size, the opening trade price will be the VBTB.

(4) If multiple prices exist that maximize the number of matched contracts and minimize the absolute imbalance between total bid size and total offer size, and the VBTB is outside the range of prices that maximizes the number of matched contracts and minimizes the absolute imbalance between total bid size and total offer size, the opening trade price will be the price among those prices that is closest to the VBTB.

(5) If the opening trade price would be below the Implied Spread Bid or above the Implied Spread Offer, there will be no opening trade and the spread will remain in a queuing state until the spread is opened in accordance with Rule 405A(i) below.

(iv) The opening bid and offer prices for a spread are the highest remaining bid and lowest remaining offer following the completion of the matching of the bids and offers that are at the same price as each other or that are crossed with one another, if any.

(v) Following the determination of the opening trade price and opening trade(s), if any, for a spread, the spread moves into an open state for trading.

(vi) ~~The~~For a Futures product, the CFE System determines the opening trade price and opening trade(s), if any, for Futures spreads for ~~a~~the Futures product and moves each of these Futures spreads into an open state for trading in the Futures Spread Processing Sequence. For a Related Options Product, the CFE System determines the opening trade price and opening trade(s), if any, for Options spreads for the Related Options Product and moves each of these Options spreads into an open state for trading in the Options Spread Processing Sequence.

(vii) No Futures Spread Orders for a Futures spread will be matched or traded unless and until the width of the prevailing market for each individual leg of the Futures spread does not exceed the applicable Threshold Width for the relevant Futures Contract. A Futures spread will remain in a queuing state, or return to a queuing state after it is opened, during any time period in which the width of the prevailing market for any individual leg of the Futures spread exceeds the applicable Threshold Width for the relevant Futures Contract. The CFE System will utilize the opening process set forth in this Rule 405A, as applicable, to open or reopen the Futures spread at such time that there is no longer any individual leg of the Futures spread for which the Threshold Width is exceeded. Executions resulting from the opening or reopening of a Futures spread in this manner are not disseminated as opening trades.

(e) *Opening Disseminations*. ~~Following the completion of the process to determine the opening trade prices and opening trades for all~~When a single leg Futures Contract ~~expirations for a product and the process to determine the opening trade prices and opening trades for all spreads for a product~~expiration, Futures spread, single leg Options series or Options spread moves into an open state for trading:

(i) ~~The CFE System disseminates for each~~For a single leg Futures Contract expiration ~~for the product~~or a single leg Options series, the CFE System disseminates:

(A) a notice of commencement of open trading in the Contract (“Open Trading Notice”); and

(B) last sale reports for each of the individual opening trades.

~~(ii) This information is disseminated for each single leg Contract expiration in the Single Leg Processing Sequence.~~

(ii) ~~(iii) The~~For a Futures spread or an Options spread, the CFE System ~~next~~ disseminates ~~for each spread for a product that does not remain in a queuing state~~:

(A) an Open Trading Notice; and

(B) for each of the spread opening trades,

(1) last sale reports for each of the individual leg trades that comprise the spread trade, with an indication that the last sale is part of a spread trade, and

(2) the spread trade.

~~(iv) This information is disseminated for each spread in the Spread Processing Sequence.~~

(iii) ~~(v)~~ The disseminations pursuant to this paragraph (e) are referred to as the “Opening Disseminations”.

(f) ~~*Spread and Simple Order Matching*~~*Release of Remaining Orders*. Following the Opening Disseminations for a single leg ~~expirations and spreads that do not remain in a queuing state~~Futures Contract expiration, Futures spread, single leg Options series or Options spread, the opening process addresses the remaining ~~Spread~~ Orders for ~~spreads that are in an open state for trading~~the applicable single leg or spread Contract. These remaining single leg Orders or Spread Orders, as applicable, include any remaining Orders with executable quantity ~~of Spread Orders~~ that were in the Order book at the commencement of the opening process which were not executed as part of an opening trade. These ~~Spread~~ Orders are addressed in the following manner:

(i) ~~The Spread Orders are released for potential execution by spread in the Spread Order Processing Sequence.~~ The release of ~~Spread~~these Orders ~~for each spread~~ is done based on time priority.

(ii) When released, ~~a Spread Order is matched with any simple~~these Orders ~~that~~ are ~~able~~eligible to be matched with ~~the Spread Order~~other released Orders pursuant to regular Order matching that applies during an open state for trading, with Match Trade Prevention in effect. The allocation method for this matching is the same as the allocation method that otherwise applies in the applicable ~~spread~~Contract.

(iii) Any resulting trades between ~~Spread Orders and simple~~these Orders are not disseminated as opening trades.

~~(iv) To the extent that the execution of a Spread Order with simple orders causes the width of the prevailing market for a single leg Contract that is the component of one or more spreads to exceed the applicable Threshold Width for the relevant Contract, the CFE System places all of the spreads containing that Contract in a queuing state following those executions.~~

(g) *Stop Limit Orders*. Following the matching of Futures Spread Orders with simple Futures Orders, the CFE System processes any Futures Stop Limit Orders that are triggered by trades during the opening process from the processing of single leg Futures trades, single leg prints as part of Futures spread trades and single leg Futures trades with Futures spreads. Triggered Futures Stop Limit Orders are either executed if the applicable Futures Stop Limit Order is marketable against the resulting market, with Match Trade Prevention in effect, or booked. Futures Stop Limit Order executions may be at a price different from the opening trade price and are not marked as opening trades. The allocation method for the processing of these Futures Stop Limit Orders is the same as the allocation method that otherwise applies to the applicable Futures Contract.

(h) *Order Submission Limitations Around Opening*. The CFE System will not accept Market Orders, Immediate or Cancel Orders or Fill or Kill Orders in a Contract until the Contract is in an open state for trading following the completion of the opening process. These Order types will only be accepted by the CFE System in a Contract when that Contract is in an open state for trading. Additionally, the rules governing a Contract may further restrict the time period during which the Exchange will accept Market Orders in that Contract.

(i) *Opening of Certain Spreads Not Opened During Opening Process*. After completion of the opening process, one or more spreads may remain in a queuing state because the opening price of the spread generated by the opening process would be below the Implied Spread Bid or above the Implied Spread Offer. For these spreads, the following process is used to transition the spreads to an open state for trading:

(i) The CFE System conducts attempts to open the spread for a ~~designated number of times spaced at a~~ designated time ~~interval, each as~~period determined by the Exchange~~,~~ utilizing the opening process set forth in this Rule 405A, as applicable. During the ~~interval between the Opening Disseminations and~~

~~the first subsequent attempted opening and between any~~intervals within that time period before and after subsequent attempted openings, Spread Orders for the spread are accepted for queuing and for participation in any subsequent attempted opening.

(ii) If the CFE System is not able to open the spread during these subsequent attempted openings, the CFE System moves the spread to an open state for trading and releases the Spread Orders for the spread for potential execution based on time priority.

(j) *~~Re-openings and~~ Delayed Openings and Re-openings*. The opening process set forth in this Rule 405A is also ~~be~~ utilized whenever ~~the Exchange reopens trading in a Contract within the same Business Day or~~ :

(i) there is a delayed opening of a Contract;

(ii) the Exchange reopens trading in a Contract within the same Business Day; or

(iii) following the end of a queuing period triggered for Options series and Options spreads in a Related Option Product because the underlying Future was at a price limit.

Executions resulting from ~~a reopening~~the operation of the opening process in these instances are not disseminated as opening trades, except in the case of a delayed opening of a Contract.

(k) *Opening Conditions*. If a condition is present within the CFE System that prevents a Contract from moving into an open state for trading or prevents the opening process set forth in this Rule 405A from being utilized, the senior person in charge of the Trade Desk may authorize moving the Contract into an open state for trading in the interest of a fair and orderly market or in the event of unusual market conditions.

(l) *Dissemination of Messages*. The Exchange disseminates the Pre-Opening Notices and Open Trading Notices pursuant to this Rule 405A as part of the Exchange Market Data that is disseminated by the Exchange.

406. Execution of Orders by CFE System

(a) *Base Allocation Methods*. An Order that is executable upon receipt by the CFE System will execute at the best price then available in the Order book in accordance with the applicable allocation method under this Rule, except that Rule 405A governs the allocation method during the opening process. At the discretion of the Exchange, any of the following base allocation methods shall apply to the execution of Orders for any Contract by the CFE System:

(i) *Price-Time Priority*. Under this method, Orders for any Contract are prioritized according to price and time. If at any time there are two or more such Orders at the best price then available, such Orders are executed in the order in which they were entered into the Order book.

(ii) *Pro Rata Priority*. Under this method, Orders for any Contract are prioritized according to price. If at any time there are two or more Orders at the best price then available, the executable quantity of Contracts is allocated to those Orders on a pro rata basis ~~taking into account~~in a proportional manner based on the relative sizes of those Orders. If the application of ~~the~~ pro rata priority ~~method~~ would result in the allocation to ~~one or more~~any Orders of a number of contracts that is not a whole number, ~~that number will be rounded up to the next whole number if the~~any fractional ~~portion of that number is~~amounts are cumulated into a residual amount and that residual amount is allocated to those Orders in the following manner. The residual amount is allocated one contract at a time in size-time priority until the residual amount is exhausted first to those Orders for which the fractional allocation would have been 0.5 or greater and ~~will be rounded down to the previous whole number if~~then to those Orders for which the fractional ~~portion of that number is~~allocation would have been less than 0.5. ~~Any residual quantity that cannot be allocated through rounding is allocated to Orders based on the following criteria in order of priority:~~

~~(1) Orders that were rounded down (with an Order rounded down having priority over an Order rounded up or not rounded);~~

~~(2) Order size (with a larger size Order having priority over a smaller size Order); and~~

~~(3) time of entry (with an Order entered into the Order book earlier in time having priority of an Order entered into the Order book later in time).~~

(b) *Trade Participation Right Priority Overlay*. In addition to the base allocation methods set forth in paragraph (a) above, the Exchange may determine that a trade participation right priority overlay shall apply to the execution of Orders for any Contract by the CFE System. Lead Market Makers ("LMMs") or a DPM may be granted a trade participation right in accordance with any program adopted pursuant to Rule 514 or Rule 515, which right may provide for priority of Orders placed by LMMs or a DPM over other Orders, up to the applicable participation right percentage. In granting a trade participation right to LMMs or a DPM, the following principles shall be followed:

(i) LMMs or a DPM shall be afforded trade participation priority over Orders placed by others when an Order in a Contract from one or more LMMs or the DPM is at the best bid/offer in that Contract at the time of the execution of the relevant transaction. An LMM's or DPM's Order must be at the best bid/offer at the time of the execution of the relevant transaction for the LMM or DPM to receive a trade participation right.

(ii) If an Order is executed at multiple price levels in a successive series of executions, the trade participation right will only apply to the execution of that Order at the initial price level at the best bid/offer at the time of the execution of that Order at the initial price level. The trade participation right will not apply to the execution of that Order at subsequent price levels in the successive series of executions of that Order.

(iii)~~(ii)~~ An LMM or DPM may not be allocated a total quantity through a trade participation right that is greater than the Order quantity of the LMM or DPM at the best bid/offer.

(iv)~~(iii)~~ An LMM or DPM will receive any allocation resulting from a trade participation right and any further allocation resulting from the application of the base allocation method to the LMM's or DPM's remaining Order quantity at the best bid/offer after the application of the trade participation right.

(v)~~(iv)~~ If the application of a trade participation right would result in allocation to one or more LMMs or a DPM of a number of contracts that is not a whole number, that number will be rounded up to the next whole number if the fractional portion of that number is 0.5 or greater and will be rounded down to the previous whole number if the fractional portion of that number is less than 0.5.

(vi)~~(v)~~ If there is more than one LMM with an Order at the best bid/offer, the trade participation right will be allocated among those LMMs by either price-time priority or pro rata priority, as designated by the Exchange in the applicable LMM program adopted pursuant to Rule 514.

(vii)~~(vi)~~ The following provisions shall apply if a trade participation right is allocated by price-time priority among multiple LMMs with Orders at the best bid/offer:

(A) The trade participation right percentage is applied to the quantity of the Order to be executed to determine the quantity of the collective LMM participation entitlement.

(B) The quantity of the collective LMM participation entitlement is allocated to the LMMs with Orders at the best bid/offer in accordance with price-time priority.

(viii)~~(vii)~~ The following provisions shall apply if a trade participation right is allocated by pro rata priority among multiple LMMs with Orders at the best bid/offer:

(A) The trade participation right percentage is applied to the quantity of the Order to be executed to determine the quantity of the collective LMM participation entitlement.

(B) The quantity of the collective LMM participation entitlement is allocated to the LMMs with Orders at the best bid/offer in accordance with pro rata priority.

(c) - (h) No change.

406A. Trading of Spread Orders

(a) *Spread Order Processing*.

(i) The following types of Spread Orders may be submitted to the

CFE System:

(A) Futures Spread Orders, other than Futures spreads that are processed as Block Trades and Exchange of Contract for Related Position transactions, are required to have the following permissible ratios:

(1) two-legged spreads where the ratio of the number of Contracts in one leg to the number of Contracts in the other leg is 1:1, 1:2 and 2:1;

(2) three-legged spreads where the ratio is 1:1:1 or 1:2:1;

(3) four-legged spreads where the ratio is 1:1:1:1; and

(4) ~~and~~ any other spread type from time to time approved by the Exchange.

(B) Spreads that are processed as TAS transactions and spread transactions in S&P 500 Variance futures are required to be two-legged spreads that are not strips where the ratio of the number of Contracts in one leg to the number of Contracts in the other leg is 1:1.

(C) Options Spread Orders, other than Options spreads that are processed as Block Trades, are required to be for a Vertical Spread, a Butterfly Spread, a Box Spread, a Calendar Spread, an Underlying Calendar Spread, a Diagonal Spread, or any other Options spread type from time to time approved by the Exchange. Unless otherwise indicated, the futures Contracts that underlie all of the Options legs of each spread type below have the same futures expiration date.

(1) A "Vertical Spread" is a two-legged spread with one leg to buy a number of calls (puts) and one leg to sell the same number of calls (puts) with the same Options expiration date but different exercise prices.

(2) A "Butterfly Spread" is a three-legged spread 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 Options expiration date but different exercise prices, and the exercise price of the middle leg is between the exercise prices of the other legs. A Butterfly Spread is a "true" Butterfly Spread if the exercise price of the middle leg is halfway between the exercise prices of the other two legs. A Butterfly Spread is a "skewed" Butterfly Spread if either (i) the exercise price of the middle leg is greater than the mid-point between the exercise prices of the other two legs for a Butterfly Spread with two call legs (a "call spread") or (ii) the exercise price of the middle leg is less than the mid-point between the exercise prices of the other two legs for a Butterfly Spread with two put legs (a "put spread").

(3) A "Box Spread" is a four-legged spread 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 Options expiration date and are for the same number of contracts.

(4) A "Calendar Spread" is a two-legged spread with one leg to buy a number of calls (puts) and one leg to sell the same number of calls (puts) with the same exercise price but different Options expiration dates.

(5) An "Underlying Calendar Spread" is a two-legged spread with one leg to buy a number of calls (puts) and one leg to sell the same number of calls (puts) with the same exercise price and Options expiration dates and with underlying futures Contracts that have different futures expiration dates.

(6) A "Diagonal Spread" is a two-legged spread with one leg to buy a number of calls (puts) and one leg to sell the same number of calls (puts) with different Options expiration dates and different exercise prices.

(7) Policy and Procedure I (Permissible Spread Types for Options on Futures) provides further description and examples of these permitted Options spread types. Policy and Procedure I also sets forth any limitations that are applicable regarding the extent to which an Options spread type may be utilized for a particular Options product.

(D)~~(C)~~ Futures Spreads that are processed as Block Trades and Exchange of Contract for Related Position ~~transactions~~ are not required to satisfy the ~~above~~ permissible ratios in Rule 406A(a)(i)(A). Options Spreads that are processed as Block Trades are not required to be for a type of spread permitted under Rule 406A(a)(i)(C).

(E)~~(D)~~ Trading Privilege Holders do not have the capability to create spread types within the CFE System. If a Trading Privilege Holder would like a ~~type of~~ spread with a permissible ratio or spread type to be created that is not already available in the CFE System, the Trading Privilege Holder should contact the Trade Desk to request creation of the spread. The Trade Desk may determine whether or not to make that spread available for trading in its sole discretion.

(ii) A Spread Order may only include Contract legs of the same Exchange product and may not include Contract legs of different Exchange products.

(iii) The CFE System will treat each defined spread like a unique Contract from a system perspective and will assign each a unique Contract identifier.

(iv) Spread Orders may have any of the acceptable Order types set forth in Rule 404, except that Spread Orders may not be submitted as Market Orders, Stop Limit Orders or Fill or Kill Orders.

(v) Spreads open for trading in the manner set forth in Rule 405A.

(vi) A Futures spread will remain in a queuing state prior to being opened for trading, or return to a queuing state after being opened for trading, during any time period in which the width of the prevailing market for any individual leg of the spread exceeds the applicable Threshold Width for the relevant Futures Contract. The CFE System will utilize the opening process set forth in Rule 405A(d)(vii) to open or reopen the spread at such time that there is no longer any individual leg of the spread for which the Threshold Width is exceeded.

(vii) The CFE System disseminates Spread Order bids and offers as net prices.

(viii) Once a Spread Order is executed, the CFE System will:

(A) disseminate to the Trading Privilege Holder that placed the Spread Order fill reports for the spread in its entirety and the individual legs;

(B) submit the transaction to clearing as separate trades in the individual legs of the spread;

(C) disseminate last sale reports for the individual legs of the spread trade, with an indication that each last sale for an individual leg is part of a spread trade, as part of the Exchange Market Data that is disseminated by the Exchange; and

(D) disseminate a last sale report for the spread trade, as part of the Exchange Market Data that is disseminated by the Exchange.

(b) *Spread Order Execution*.

(i) The base allocation method and priority overlay applicable to a Contract shall apply to Spread Orders in the Contract unless otherwise specified in the rules governing that Contract.

(ii) A Spread Order may be fully or partially executed against an opposite side Spread Order that is residing in the CFE System as long as:

(A) the price of the trade in each leg of the spread would occur at the prevailing best bid price, the prevailing best offer price, or between the prevailing best bid price and prevailing best offer price in that individual Contract leg; and

(B) if the Spread Order is in a Futures product, the width of the prevailing market for each leg of the spread does not exceed the applicable Threshold Width for ~~the relevant Contract~~that Futures product.

(iii) A Spread Order may be fully or partially executed against individual Orders in the legs of the spread that are residing in the CFE System as long as:

(A) the Spread Order is not able, or is no longer able, to execute against Spread Orders residing in the CFE System pursuant to ~~subparagraph~~ Rule 406A(b)(ii) ~~above~~;

(B) the Spread Order can be executed in full (or partially executed while maintaining the ratio of the Spread Order for the unexecuted portion) against the individual leg Orders residing in the CFE System; ~~and~~

(C) if the Spread Order is in a Futures product, the width of the prevailing market for each leg of the spread does not exceed the applicable Threshold Width for that Futures product; and

(D) if the ~~relevant Contract.~~ Spread Order is in an Options product, the Spread Order is not:

(1) a Spread Order with two legs where both legs are to buy or both legs are to sell and where both legs are calls or both legs are puts; or

(2) a Spread Order with three or four legs where all legs are to buy or all legs are to sell.

(iv) If more than one Spread Order is able to execute against an individual leg Order, the determination of which Spread Order(s) will execute against the individual leg Order will be based on priority as determined by :

(A) the Futures Spread Processing Sequence as applied to the applicable spreads for Futures spreads or the Options Spread Processing Sequence as applied to the applicable spreads for Options spreads; and

(B) in order of time priority within each of the applicable spreads.

(v) Spread Orders will always trade in ratio. When trading with other Spread Orders, Spread Orders will only trade with opposite side Spread Orders with the same components and ratios.

(vi) The CFE System will treat a Spread Order as having an adjusted limit price as described below in the following two circumstances.

(A) The first circumstance is in the event that:

(1) a Spread Order is not able, or is no longer able, to execute against Spread Orders and individual leg Orders residing

in the CFE System pursuant to ~~subparagraphs~~ Rule 406A(b)(ii) and Rule 406A(b)(iii) ~~above~~, and

(2) the limit price of the Spread Order is crossed with the opposite side Implied Spread Bid or Implied Spread Offer.

(B) The second circumstance is in the event that:

(1) a Lower Price Limit or Upper Price Limit is in effect for a Futures product,

(2) the Lower Price Limit or Upper Price Limit is used as an input to the calculation of an Implied Spread Bid or Implied Spread Offer in that Futures product, and

(3) the limit price of the Spread Order is crossed with an opposite side Implied Spread Bid or Implied Spread Offer calculated using a Lower Price Limit or Upper Price Limit.

(C) If either of the above two circumstances occurs with respect to a Spread Order, the following shall take place during the time period in which that circumstance exists:

(1) the limit price of the Spread Order will be treated by the CFE System as having been changed to the price of the opposite side Implied Spread Bid or Implied Spread Offer;

(2) as the opposite side Implied Spread Bid or Implied Spread Offer changes while the original limit price of the Spread Order remains crossed with the opposite side Implied Spread Bid or Implied Spread Offer, the limit price of the Spread Order will be treated as having been changed to the price of the then prevailing opposite side Implied Spread Bid or Implied Spread Offer; and

(3) the Spread Order will be handled by the CFE System in the same manner as it otherwise would be handled with the one exception that it will be treated as having the adjusted limit price.

(D) Any Spread Orders that are treated as having an adjusted limit price in the second circumstance above at the point in time at which a Lower Price Limit or Upper Price Limit is in no longer in effect for a Futures product (such as when the Futures product moves directly from extended trading hours to regular trading hours) are transitioned back to being treated as having their original limit prices in the Futures Spread Processing Sequence as applied to the applicable spreads and within each of the applicable spreads in order of time priority.

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412. Position Limits

(a) - (f) No change.

(g) If a position exceeds a position limit as a result of an Option assignment, the Person who owns or controls that position shall be allowed one Business Day to liquidate the excess position without being considered in violation of the position limit. Additionally, if, at the close of trading on a Business Day, a position that includes Options exceeds a position limit when evaluated using the Options delta values disseminated by the Exchange for that Business Day, but does not exceed the position limit when evaluated using the Options delta values disseminated by the Exchange for the previous Business Day, then the position shall not constitute a position limit violation.

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412A. Position Accountability

(a) - (g) No change.

(h) If a position exceeds a position accountability level as a result of an Option assignment, the Person who owns or controls that position shall be allowed one Business Day to liquidate the excess position before that position is considered to be above the position accountability level for purposes of the obligation to provide notice to the Exchange with regard to the position pursuant to paragraph (c) or (d) above. Additionally, if, at the close of trading on a Business Day, a position that includes Options exceeds a position accountability level when evaluated using the Options delta values disseminated by the Exchange for that Business Day, but does not exceed the position accountability level when evaluated using the Options delta values disseminated by the Exchange for the previous Business Day, then the position shall not be considered be above the position accountability level for purposes of the obligation to provide notice to the Exchange with regard to the position pursuant to paragraph (c) or (d) above. Notwithstanding the foregoing, the other of the provisions of this Rule 412A, including without limitation the provisions of paragraph (e) above, shall remain applicable in both of the situations described in this paragraph (h).

(i)~~(h)~~ To the extent that a Trading Privilege Holder does not comply with any written or verbal instruction issued by the Exchange with respect to position accountability levels, such non-compliance may constitute a violation of this Rule 412A.

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513. System Security and Integrity

(a) - (b) No change.

(c) The Exchange may limit the number of messages or the amount of data transmitted by Trading Privilege Holders to the CFE System in order to protect the integrity of the CFE System. In addition, the Exchange may impose restrictions on the use of any individual access to the CFE System, including temporary termination of an individual access and activation by the Exchange of the kill switch function under Rule 513A(~~j~~l), if it believes such restrictions are necessary to ensure the proper performance of the CFE System or to protect the integrity of the market. Any limitations or restrictions under this paragraph (c) shall be applied in a fair and non-discriminatory manner.

(d) No change.

513A. Risk Controls

(a) *General Provisions.*

(i) The Exchange shall implement, and make available to Clearing Members and Trading Privilege Holders, risk control mechanisms as described in this Rule 513A in a form and manner prescribed and provided by the Exchange. The provisions of this Rule 513A relating to each risk control mechanism describe whether that risk control mechanism may be utilized for Futures products, Options products or both Futures and Options products.

(ii) Risk control mechanisms may be set by EFID, product and/or match capacity allocation depending upon the applicable risk control. Risk control settings applicable to a product apply to all contract expirations or series, as applicable, in that product (except that TAS Orders and S&P 500 Variance future stub Orders each have separate product level settings that apply only to those Order types).

(iii) The risk control mechanisms made available to Clearing Members shall enable a Clearing Member to set risk control parameters for Trading Privilege Holders in relation to Orders submitted to the CFE System with EFIDs that are linked to a clearing number for that Clearing Member. Clearing Members may also be able to set EFID risk control parameters by groups of EFIDs depending upon the applicable risk control. Additionally, a Clearing Member will have the ability to utilize the risk control mechanisms made available to Trading Privilege Holders in relation to that Clearing Member's own access to the CFE System.

(iv) Risk control thresholds are measured in vega notional for S&P 500 Variance futures and in variance units for S&P 500 Variance future stub positions rather than in contract size.

(b) *Futures and Options Maximum Order Size Limits*.

(i) *Futures and Options Maximum Order Contract Size Limit.*

(A)~~(i)~~ Clearing Members and Trading Privilege Holders shall have the ability to designate maximum Order contract size limits by EFID and product for Futures and Options products. The most restrictive applicable maximum Order contract size limit that is designated shall apply.

(B)~~(ii)~~ If the quantity of an Order is greater than the applicable designated maximum Order contract size limit, the CFE System will reject the Order or cancel the Order back to the sender.

(C)~~(iii)~~ The quantity of a Spread Order for purposes of applying a Spread Order maximum Order contract size limit shall be the contract quantity of the individual leg of the Spread Order with the largest size.

(D)~~(iv)~~ If a designated maximum Order contract size limit is changed during a Business Day after an Order to which it would have applied has been submitted to the CFE System, the new maximum Order contract size limit will not be applied to that Order during that Business Day. If the Order is a Good-'til-Canceled Order or a Good-'til-Date Order and the Order remains in the Order book after the conclusion of that Business Day, the new maximum Order contract size limit will be applied to that Order prior to the start of the queuing period described in Rule 405A(a) for the next Business Day.

(E)~~(v)~~ Block Trades and Exchange of Contract for Related Position transactions shall not be subject to maximum Order contract size limits.

(ii) *Options Maximum Notional Value Order Size Limit*.

(A) Clearing Members and Trading Privilege Holders shall have the ability to designate maximum notional value Order size limits by EFID and product for Options products. The most restrictive applicable maximum notional value Order size limit that is designated shall apply.

(B) The maximum notional value Order size limit provisions under this Rule 513A(b)(ii) shall apply to single leg Orders in Options products and shall not apply to Spread Orders in Options products.

(C) If the notional value of a single leg Options Order is greater than the applicable designated maximum notional value Order size limit, the CFE System will reject the Order or cancel the Order back to the sender.

(D) The notional value of a single leg Limit Order in an Options Contract for purposes of applying a maximum notional value Order size limit is determined by multiplying the contract size of the Order by the limit price of the Order.

(E) The notional value of a single leg Market Order in an Options Contract for purposes of applying a maximum notional value Order size limit is determined by multiplying the contract size of the Order by a derived price for purposes of applying the maximum notional value Order size limit, which is calculated in the following manner.

(1) If the Market Order is a market order to buy, the derived price is determined through the following calculation: (the price of the best opposite side offer in the applicable Options Contract) plus the product of ((the Market Order price reasonability percentage parameter for the applicable Options product under Rule 513A(e)(i)) multiplied by (the price of the best opposite side offer in the applicable Options Contract)).

(2) If the Market Order is a market order to sell, the derived price is determined through the following calculation: (the price of the best opposite side bid in the applicable Options Contract) minus the product of ((the Market Order price reasonability percentage parameter for the applicable Options product under Rule 513A(e)(i)) multiplied by (the price of the best opposite side bid in the applicable Options Contract)).

(F) A Clearing Member or Trading Privilege Holder may change an existing maximum notional value Order size limit previously designated by the party seeking to change the limit as long as the new limit is not higher than a more restrictive limit set by the other party that is able to set the limit. The party changing the limit may designate whether the change will go into effect immediately or at the beginning of the next Business Day for Orders received by the CFE System subsequent to the effectiveness of the change. The new maximum notional value Order size limit will not be applied to any pending Orders received by the CFE System prior to the effectiveness of the change. If an Order is modified subsequent to the effectiveness of the change, the new maximum notional value Order size limit will be applied to the modified Order.

(G) Block Trades and Exchange of Contract for Related Position transactions shall not be subject to maximum notional value Order size limits.

(c) *Futures Net Long and Net Short Limits*.

(i) Clearing Members shall have the ability to designate net long and net short limits by EFID and product for Futures products.

(ii) The number of contracts that are counted against a net limit on contracts bought (or sold) per Business Day is calculated by (i) determining the sum of the total contract size of currently resting buy (or sell) Orders and the total contract size of previous buy (or sell) executions during the Business Day and (ii) reducing that sum by the total contract size of previous executions during that Business Day on the opposite side. Resting Stop Limit Orders are counted as currently resting Orders for this purpose. For Spread Orders, the contract size of each individual leg is counted for this purpose.

(iii) The CFE System shall reject or cancel back to the sender any incoming Order that, if it were to be accepted, would cause a net limit on the number of contracts bought (or sold) per Business Day to be exceeded when added to the number of contracts already counted against the limit. If the CFE System receives a Cancel Replace/Modify Order that, if the cancellation were to be processed and the Order were to be accepted, would cause a net limit on the number of contracts bought (or sold) per Business Day to be exceeded when added to the number of contracts already counted against the limit, the CFE System will process the cancellation and will reject or cancel back to the sender the replacement Order.

(iv) Block Trades and Exchange of Contract for Related Position transactions shall be subject to and taken into account under net long and net short limits.

(v) Net long and net short limits will collectively apply to non-TAS contracts in VX and VXM futures (with ticker symbols VX and VXM) and will separately collectively apply to TAS contracts in VX and VXM futures (with ticker symbols VXT and VXMT). For this purpose:

(A) Order and execution quantities in VX and VXM contracts will be aggregated. One VXM futures contract shall be deemed to be equivalent to one tenth (0.10) of one VX futures contract.

(B) Order and execution quantities in VXT and VXMT contracts will be aggregated. One VXMT futures contract shall be deemed to be equivalent to one tenth (0.10) of one VXT futures contract.

(vi) When changing a net limit, a Clearing Member may designate whether the change will go into effect immediately or at the beginning of the next Business Day. The new net limit will not be applied to any pending Orders received by the CFE System prior to the effectiveness of the change, except that subsequent executions of those Orders will be counted in connection with determining whether the new net limit would be exceeded by a subsequent Order. If a pending Order is modified subsequent to the effectiveness of a change to a net limit, the new net limit will be applied in relation to the modified Order.

(d) *Futures and Options Limit Order Price Reasonability Checks*.

(i) The Exchange shall designate Limit Order price reasonability percentage parameters by product for Futures and Options products, and those percentages shall be set forth in the rules governing the applicable product. Clearing Members and Trading Privilege Holders shall have the ability to designate Limit Order price reasonability percentage parameters by EFID and product. The most restrictive applicable Limit Order price reasonability percentage that is designated shall apply.

(ii) The Limit Order price reasonability checks under this Rule 513A(d) apply to simple Orders in Futures and Options products, other than to simple buy Orders when there is no prevailing offer and to simple sell Orders when there is no prevailing bid. For simple Orders in Futures and Options products, the CFE System shall reject or cancel back to the sender:

(A) any buy Order with a limit price if the limit price upon receipt of the Order by the CFE System is equal to or more than the applicable designated percentage above the prevailing best offer in the applicable Contract; and

(B) any sell Order with a limit price if the limit price upon receipt of the Order by the CFE System is equal to or more than the applicable designated percentage below the prevailing best bid in the applicable Contract.

(iii) The Limit Order price reasonability checks under this Rule

513A(d) apply to Spread Orders in Options products and do not apply to Spread Orders in Futures products. For Spread Orders in Options products, the CFE System shall reject or cancel back to the sender:

(A) any buy Order with a limit price if the limit price upon receipt of the Order by the CFE System is equal to or more than the applicable designated percentage above the prevailing best offer in the applicable spread as reflected by any pending opposite side Spread Orders and the Implied Spread Offer for that spread; and

(B) any sell Order with a limit price if the limit price upon receipt of the Order by the CFE System is equal to or more than the applicable designated percentage below the prevailing best bid in the applicable spread as reflected by any pending opposite side Spread Orders and the Implied Spread Bid for that spread.

(iv)~~(iii)~~ The Limit Order price reasonability checks under this Rule 513A(d):

(A) ~~will~~ apply during Trading Hours;

(B) ~~will~~do not apply prior to the opening or restart of trading in a Contract or during the opening or re-opening process for a Contract pursuant to Rule 405A;

(C) ~~will apply to simple Orders, other than to simple buy Orders when there is no prevailing offer and to simple sell Orders when there is no prevailing bid;~~

~~(D)~~ ~~will~~ apply to a Stop Limit Order when it is triggered (i.e., when the relevant Contract trades at the specified trigger price as described in Rule ~~404(d)~~ 404(a)(iv)) and not when a Stop Limit Order is received by the CFE System;

(~~E~~D) ~~will~~do not apply to ~~Spread Orders or~~ Trade at Settlement Orders; and

(~~F~~E) ~~will~~do not apply to Block Trades and Exchange of Contract for Related Position transactions.

(e) *Futures and Options Market Order ~~Price Reasonability Checks~~Risk Controls*. The following Market Order risk controls apply in products in which Market Orders may be submitted.

(i) *Futures and Options Market Order Price Reasonability Checks.*

(A)~~(i)~~ The Exchange shall designate Market Order price reasonability percentage parameters and Threshold Widths by product for Futures and Options products, and those percentages and Threshold Widths shall be set forth in the rules governing the applicable product.

(B)~~(ii)~~ If a Market Order is partially executed at an initial price level, the remaining portion of the Market Order will not execute at a price that is more than the applicable designated percentage above or below that initial price level. The CFE System will reject or cancel back to the sender any remaining portion of the Market Order that would execute at a price that is more than the applicable designated percentage above or below that initial price level.

(C)~~(iii)~~ A Market Order will only execute at price levels that are at or within the applicable Threshold Width. The CFE System will reject or cancel back to the sender any portion of a Market Order that would execute at a price level that is outside of the applicable Threshold Width.

(D)~~(iv)~~ The Market Order price reasonability checks under this Rule 513A(e) will not apply to Trade at Settlement ("TAS") Orders or to Block Trades and Exchange of Contract for Related Position transactions.

(ii) *Market Orders in No-Bid (Offer) Options Series.*

(A) The CFE System will handle Market Orders in no-bid (offer) series in Options products in the manner described below.

(B) If the CFE System receives a sell Market Order in an Options series that is in an open state for trading and in which there is currently no bid or the current best bid has a value of zero:

(1) if the current best offer in the Options series is less than or equal to a designated minimum offer price level applicable to this Options Market Order price reasonability check that is set forth in the rules governing the applicable Options product, the CFE System converts the Market Order to a Limit Order with a limit price equal to the minimum increment for the Options product; and

(2) if the current best offer in the Options series is greater than a designated minimum offer price level applicable to this Options Market Order price reasonability check set forth in the rules governing the applicable Options product, the Market Order is rejected or canceled back to the sender by the CFE System.

(C) If a sell Market Order received in an Options series when it is in an open state for trading partially executes against one or more resting bids resulting in no current bid because the previously existing quantity to buy has been exhausted through execution against the Market Order, the remaining portion of the Market Order is treated for purposes of this Rule 513A(e)(ii) in the same manner as a sell Market Order that is received when an Options series is in an open state for trading and there is no current bid.

(D) If the CFE System receives a buy Market Order in an

Options series that is in an open state for trading and in which there is currently no offer or the current best offer has a value of zero, the Market Order is rejected or canceled back to the sender by the CFE System.

(E) This Options Market Order risk control does not apply to Quotes.

(f) *Futures and Options Spread Order Price Reasonability Checks.*

(i) *Futures Spread Order Price Reasonability ~~Checks~~Check*. A Futures spread will remain in a queuing state prior to being opened for trading, or return to a queuing state after being opened for trading, during any time period in which the width of the prevailing market for any individual leg of the Futures spread exceeds the applicable Threshold Width for the relevant Futures Contract. The CFE System will utilize the opening process set forth in Rule 405A(d)(vii) to open or reopen the Futures spread at such time that there is no longer any individual leg of the Futures spread for which the Threshold Width is exceeded.

(ii) *Options Spread Order Price Reasonability Checks*.

(A) *All Buy Legs Options Spread Order Price Reasonability Check.*

(1) An Options Spread Order is rejected or canceled back to the sender by the CFE System if all of the legs of the Options Spread Order are to buy and the Options Spread Order has:

(aa) a price of zero;

(bb) a net credit price that exceeds a buffer amount designated by the Exchange by spread type and Options product for purposes of this all buy legs Options Spread Order price reasonability check (which may be set at zero or another amount); or

(cc) a net debit price that is less than the number of individual legs in the spread multiplied by the minimum increment for the individual legs of spread trades in the applicable Options product.

(2) The Exchange shall disseminate to Trading Privilege Holders in a form and manner determined by the Exchange the buffer amounts for this price reasonability check.

(B) *Debit/Credit Options Spread Order Price Reasonability Check.*

(1) An Options Spread Order is rejected or canceled back to the sender by the CFE System if the Options Spread Order or an unexecuted portion of an Options Spread Order:

(aa) is for a debit strategy with a net credit price that exceeds a buffer amount designated by the Exchange by spread type and Options product for purposes of this debit strategy Options Spread Order price reasonability check (which may be set at zero or another amount); or

(bb) is for a credit strategy with a net debit price that exceeds a buffer amount designated by the Exchange by spread type and Options product for purposes of this credit strategy Options Spread Order price reasonability check (which may be set at zero or another amount).

(2) The Exchange shall disseminate to Trading Privilege Holders in a form and manner determined by the Exchange the buffer amounts for this debit/credit Options Spread Order price reasonability check.

(3) A spread Order is defined as debit or credit for purposes of this debit/credit Options Spread Order price reasonability check as follows:

(aa) 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);

(bb) 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

(cc) an order for which all pairs and loners are debits (credits) is a debit (credit).

(4) For purposes of this debit/credit Options Spread Order price reasonability check:

(aa) A "pair" is a pair of legs in an Options Spread 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 (i.e., a Vertical Spread), the same exercise price but different expiration dates (i.e., a Calendar Spread), or the exercise price for the call (put) with the farther expiration date is lower (higher) than the exercise price for the nearer expiration date (i.e., a Diagonal Spread); and

(bb) A "loner" is any leg in an Options Spread Order that the CFE System cannot pair with another leg in the Options Spread Order.

(5) The CFE System applies the following parameters in addressing pairs and loners for purposes of this debit/credit Options Spread Order price reasonability check:

(aa) The CFE 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.

(bb) The CFE System next pairs legs to the extent possible across Options expiration dates, pairing one call (put) with the call (put) that has the next nearest Options expiration date and the same or next lower (higher) exercise price.

(cc) 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 Options expiration date) or if the Options expiration date of the sell (buy) leg is farther than the Options expiration date of the buy (sell) leg (if the exercise price of the sell (buy) leg is the same as or lower than the exercise price of the buy (sell) leg).

(dd) 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 Options expiration date) or if the Options expiration date of the sell (buy) leg is farther than the Options expiration date of the buy (sell) leg (if the exercise price of the sell (buy) leg is the same as or higher than the exercise price of the buy (sell) leg).

(ee) A loner to buy is a debit, and a loner to sell is a credit.

(6) The CFE System does not apply this debit/credit Options Spread Order price reasonability check to an Options Spread Order that it cannot define as debit or credit or to an Options Spread Order with Options legs which have underlying futures Contracts that do not all have the same futures expiration date.

(C) *Acceptable Price Range Options Spread Order Price Reasonability Check.*

(1) An Options Spread Order is rejected or canceled back to the sender by the CFE System if the Options Spread Order:

(aa) is for a Vertical Spread, a true Butterfly

Spread, or a Box Spread; and

(bb) has a limit price that is outside of an acceptable price range.

(2) The acceptable price range for purposes of this acceptable price range Options Spread Order price reasonability check is set by the minimum and maximum possible value of the spread, subject to an additional buffer amount designated by the Exchange by spread type and Options product for purposes of this price reasonability check (which may be set at zero or another amount).

(3) The Exchange shall disseminate to Trading Privilege Holders in a form and manner determined by the Exchange the buffer amounts for this acceptable price range Options Spread Order price reasonability check.

(4) For purposes of this acceptable price range Options Spread Order price reasonability check:

(aa) The maximum possible value of a Vertical Spread is the difference between the exercise prices of the two legs of the Vertical Spread, and the minimum possible value of a Vertical Spread is zero.

(bb) The maximum possible value of a true Butterfly Spread is the difference between the exercise prices of the middle leg and the legs on either side of the true Butterfly Spread, and the minimum possible value of a true Butterfly Spread is zero.

(cc) The maximum possible value of a Box Spread is the difference between the exercise prices of each pair of legs of the Box Spread, and the minimum possible value of a Box Spread is zero.

(g) *Futures Execution Rate Limits*.

(i) Trading Privilege Holders shall have the ability to designate execution rate limits by EFID and Futures product. An execution rate limit is a maximum number of contracts that may be executed per time interval.

(ii) If an execution rate limit designated by a Trading Privilege Holder for an EFID and Futures product is exceeded, the CFE System shall:

(A) cancel all resting Orders for the applicable EFID and Futures product; and

(B) reject or cancel back to the sender any new Orders for the applicable EFID and Futures product until the CFE System receives a reset command from the Trading Privilege Holder.

(iii) Block Trades and Exchange of Contract for Related Position transactions shall not be subject to execution rate limits.

(h) *Futures and Options Order Rate Limits*.

(i) The Exchange may designate Order rate limits for each type of match capacity allocation. The Exchange shall disseminate to Trading Privilege Holders in a form and manner determined by the Exchange any Order rate limits designated by the Exchange. The Exchange may permit Trading Privilege Holders to designate Order rate limits for match capacity allocations that are lower than any Order rate limit designated by the Exchange for that type of match capacity allocation.

(ii) An Order rate limit is a maximum number of Orders or Orders of a particular type that may be received by the CFE System per time interval and may be applicable to Futures and/or Options products.

(iii) If the applicable Order rate limit is exceeded, the CFE System will reject or cancel back to the sender those Orders received by the CFE System during the applicable time interval after the Order rate limit is reached during that time interval.

(iv) A Spread Order will be counted as one Order for purposes of computing the number of Orders received during an Order rate limit time interval.

(v) A Cancel Order is counted for purposes of computing the number of Orders received during an Order rate limit time interval, except that a mass cancel, purge or kill switch request is not counted for these purposes. If a Cancel Order (including a mass cancel, purge or kill switch request) is received by the CFE System during an Order rate limit time interval after the applicable limit is reached, the CFE System will process (and not reject or cancel back) the Cancel Order (subject to the following sentence and to Rule 513A(h)(vii)(B) below). Mass cancel, purge and kill switch requests may be subject to separate Order rate limits pursuant to which the CFE System will reject or cancel back to the sender mass cancel, purge or kill switch requests in excess of the applicable limit that are received by the CFE System during the applicable time interval for that limit.

(vi) A Cancel Replace/Modify Order is counted for purposes of counting the number of Orders received during an Order rate limit time interval. If a Cancel Replace/Modify Order is received by the CFE System during an Order rate limit time interval after the applicable limit is reached, the CFE System will:

(A) reject or cancel back to the sender the replacement Order portion of the Cancel Replace/Modify Order; and

(B) process (and not reject or cancel back) the Cancel Order portion of the Cancel Replace/Modify Order.

(vii) For purposes of Order rate limits as they relate to Quotes:

(A) Each Quote is counted as an Order for purposes of counting the number of Orders received during an Order rate limit time interval.

(B) Except as provided in Rule 513A(h)(vii)(C) below, the CFE System will reject or cancel back to the sender any Bulk Message (including all Quotes contained in the Bulk Message) that is received by the CFE System during an Order rate limit time interval after the applicable limit is reached.

(C) The CFE System will process (and not reject or cancel back) any Bulk Message (including all Quotes contained in the Bulk Message) that is received during an Order rate limit time interval after the applicable limit is reached if the Bulk Message satisfies the following condition. All of the Quotes contained in the Bulk Message must be Quote submissions to cancel an existing bid or offer established by a previous Quote as described in Rule 404(b)(ii)(H)(1)(aa), Rule 404(b)(ii)(H)(1)(bb) or Rule 404(b)(ii)(H)(2)(aa).

(viii) Block Trades and Exchange of Contract for Related Position transactions shall not be subject to Order rate limits.

(i) *Exchange Designated Limits for Futures and Options*. The Exchange may designate Maximum Order Size Limits for Futures and Options products, Execution Rate Limits for Futures products, and/or Net Long and Net Short Limits for Futures products as described above. If the Exchange does so:

(i) the Exchange shall disseminate those limits to Trading Privilege Holders in a form and manner determined by the Exchange; and

(ii) the most restrictive applicable limit (designated either by the Exchange, a Clearing Member or a Trading Privilege Holder, as applicable for that risk control) shall apply.

(j) *Options Risk Monitor Mechanism*.

(i) Trading Privilege Holders shall have the ability to designate the following Options risk monitor mechanism parameters by EFID and Options product:

(A) number of contracts executed ("volume");

(B) notional value of executions ("notional"), which the CFE System calculates for purposes of the Options risk monitor mechanism by multiplying the number of contracts executed by the Options Premium to determine the notional value of each Options execution;

(C) number of executions ("count"); and

(D) number of contracts executed as a percentage of number of contracts outstanding within an Exchange-designated time period or during a trading day, as applicable ("percentage"), which the CFE System determines for purposes of the Options risk monitor mechanism by calculating the percentage of outstanding contracts that executed on each side of the market during the time period or trading day, as applicable, and then summing the series percentages on each side of the market.

(ii) Trading Privilege Holders may establish Options risk monitor mechanism parameters over a time period established by the Trading Privilege Holder ("interval limit") and on an absolute basis for a trading day ("absolute limit").

(iii) Clearing Members shall have the ability to designate absolute notional limits by EFID and Options product. In the case of absolute notional limits by EFID and Options product, the most restrictive applicable limit that is designated by a Clearing Member and Trading Privilege Holder shall apply.

(iv) When the CFE System determines that a volume, notional, count, or percentage limit designated by a Trading Privilege Holder or a Clearing Member has been reached within an interval or absolute limit for an EFID and Options product, the CFE System will trigger the Options risk monitor mechanism which cancels all Orders residing in the CFE System for the applicable EFID and Options product and rejects or cancels back to the sender any new Orders for the applicable EFID and Options product until the counting program resets.

(v) If an Options risk monitor mechanism limit is reached during the opening or re-opening process for a Contract pursuant to Rule 405A, the Options risk monitor mechanism will not be triggered until the opening or re-opening process for that Contract is completed.

(vi) The CFE System will execute any marketable Orders that are executable against a Trading Privilege Holder's Order received prior to the time that the Options risk monitor mechanism limit is triggered up to the size of the Trading Privilege Holder's Order, even if those executions result in executions in excess of the applicable Options risk monitor mechanism parameters.

(vii) The CFE System will not accept new Orders from a Trading Privilege Holder after a volume, notional, count, or percentage limit designated by a Trading Privilege Holder has been reached within an interval or absolute limit for an EFID and Options product. This block on the acceptance of new Orders shall remain in place until the earlier of the end of the Business Day on which the block is activated or when the Trading Privilege Holder submits an electronic instruction to the CFE System to reset the count for the applicable limit in a form and manner prescribed by the Exchange.

(viii) The CFE System will not accept new Orders from a Trading Privilege Holder after an absolute notional count limit designated by a Clearing Member has been reached for an EFID and Options product. This block on the acceptance of new Orders shall remain in place until the earlier of the end of the Business Day on which the block is activated or until the Trade Desk resets the count for the applicable limit after receiving a request from the Clearing Member to do so.

(ix) The Exchange may limit the number of Options risk monitor mechanism resets submitted to the CFE System by a Trading Privilege Holder or Clearing Member over a designated period of time. The Exchange shall disseminate to Trading Privilege Holders and Clearing Members in a form and manner determined by the Exchange any limitation on the submission of Options risk monitor mechanism resets.

(x) The CFE System will reset the counting period for an absolute limit designated by a Trading Privilege Holder or Clearing Member when the Trading Privilege Holder or Clearing Member that set the absolute limit refreshes its threshold for the absolute limit.

(xi) The CFE System will reset the counting program and commence a new interval time period when:

(A) a previous interval time period has expired and a transaction occurs in any series of the applicable Options product; or

(B) a Trading Privilege Holder refreshes its risk limit threshold for an interval limit prior to the expiration of the interval time period.

(xii) The CFE System counts individual trades executed as part of a Spread Order when determining whether a volume, notional, or count limit has been reached. The CFE System counts the percentage executed of a Spread Order when determining whether the percentage limit has been reached.

(k) *Futures and Options Duplicate Order Protection*.

(i) Trading Privilege Holders shall have the ability to enable duplicate Order protection by match capacity allocation for Futures and Options Orders.

(ii) When duplicate Order protection is enabled for a match capacity allocation:

(A) If the CFE System receives through the match capacity allocation a specified number of duplicate orders during a specified time interval in a Futures or Options Contract that have the same EFID, side, price and quantity, the CFE System will:

(1) reject or cancel back to the sender additional duplicate Orders submitted through the match capacity allocation until the CFE System receives through the match capacity allocation an Order in the Futures or Options Contract with a different EFID, side, price or quantity, at which time this risk control is reset; or

(2) reject all incoming Orders (except Cancel Orders)

submitted through the match capacity allocation for that EFID until the Trade Desk resets this risk control after receiving a request from the Trading Privilege Holder to do so.

(B) The Trading Privilege Holder shall have the ability to designate the number of duplicate Orders and the applicable time interval in which that number of duplicate orders will trigger one of the outcomes specified in Rule 513A(k)(ii)(A) and to designate which of the outcomes specified in Rule 513A(k)(ii)(A) occurs if the duplicate Order protection risk control is triggered.

(C) The triggering of the duplicate Order protection risk control does not prevent the submission of Cancel Orders to the CFE System.

(D) The duplicate Order protection risk control does not apply to Quotes.

(l)~~(j)~~ *Kill Switch*.

(i) The Exchange, Clearing Members and Trading Privilege Holders shall have the ability to activate a kill switch by EFID for Futures and Options products. The party activating a kill switch shall have the ability to designate whether the kill switch is applicable to all products, to all Futures products or to all Options products.

(ii) If a kill switch is activated, the CFE System will cancel all Orders residing in the CFE System for the applicable EFID for all products, all Futures products or all Options products, as designated by the party activating the kill switch.

(iii) At the option of the party activating a kill switch, that party may choose to have the activation of the kill switch also cause the CFE System to reject or cancel back to the sender any new Orders for the applicable EFID for all products, all Futures products or all Options products, as designated by the party activating the kill switch. These blocks on the submission of Orders shall remain in place until the earlier of the end of the Business Day on which the kill switch is activated or when the party that activated the kill switch resets the kill switch in a form and manner prescribed by the Exchange.

(iv) Block Trades and Exchange of Contract for Related Position transactions for an EFID in products covered by a kill switch activation will not be accepted by the CFE System if a kill switch has been activated and remains in effect for that EFID which blocks the submission of Orders for that EFID in those products.

(v) A Trading Privilege Holder shall also have the ability to utilize:

(A) a mass cancel request to cancel all or a subset of pending Orders submitted through a match capacity allocation, and at the option of the Trading Privilege Holder submitting the mass cancel request, to cause the CFE System to reject or cancel back to the sender all or a subset of new Orders submitted through that match capacity allocation until a reset request is received by the CFE System;

(B) a purge request to cancel all or a subset of pending Orders submitted through multiple match capacity allocations, and at the option of the Trading Privilege Holder submitting the purge request, to cause the CFE System to reject or cancel back to the sender all or a subset of new Orders until a reset request is received by the CFE System; and

(C) the Portal to cancel a subset of pending Orders.

(m)~~(k)~~ *Disconnection Risk Controls*.

(i) *General*.

(A) Trading Privilege Holders shall have the ability to enable disconnection risk controls by match capacity allocation.

(B) Disconnection risk controls apply to both Futures and Options products.

(C)~~(B)~~ Block Trades and Exchange of Contract for Related Position transactions shall not be subject to disconnection risk controls.

(ii) *Cancel on Match Capacity Allocation Disconnect*.

(A) A Trading Privilege Holder may enable cancel on disconnect functionality for an order match capacity allocation and may choose to have that functionality apply to:

(1) Day Orders; or

(2) all Orders.

(B) Cancel on disconnect functionality is enabled for each quoting match capacity allocation. A Trading Privilege Holder may choose to have that functionality apply to:

(1) Day Orders; or

(2) all Orders.

(C) For purposes of cancel on disconnect functionality, a disconnection from a match capacity allocation includes a disconnection that occurs for any reason (including as the result of the submission of a logout message) or if at any time the CFE System does not receive any inbound message traffic or a heartbeat message through the match capacity allocation for a specified time interval as prescribed by the Exchange.

(D) When cancel on disconnect functionality is enabled for a match capacity allocation:

(1) If there is a disconnection from that match capacity allocation,

(2) the CFE System cancels all applicable Orders that are residing in the CFE System

(3) which were submitted through that match capacity allocation

(4) for any product is not in a suspended state.

(iii) *Cancel on Matching Engine Disconnect*.

(A) A Trading Privilege Holder may enable cancel on matching engine disconnect functionality for an order match capacity allocation and may choose to have that functionality apply to:

(1) Day Orders; or

(2) all Orders.

(B) Cancel on matching engine disconnect functionality is enabled for each quoting match capacity allocation. A Trading Privilege Holder may choose to have that functionality apply to:

(1) Day Orders; or

(2) all Orders.

(C) When cancel on matching engine disconnect is enabled by a Trading Privilege Holder for a match capacity allocation:

(1) If there is loss of connectivity between that match capacity allocation and the CFE System matching engine,

(2) the CFE System cancels all applicable Orders residing in the CFE System

(3) that were submitted through that match capacity allocation

(4) for any product that is not in a suspended state.

(D) When cancel on matching engine disconnect is not enabled by a Trading Privilege Holder for a match capacity allocation:

(1) If there is loss of connectivity between that match capacity allocation and the CFE System matching engine

(2) for a specified time interval as prescribed by the Exchange,

(3) the CFE System cancels all Orders residing in the CFE System

(4) that were submitted through that match capacity allocation

(5) for any product that is not in a suspended state.

(iv) *Cancel on Drop Disconnect*.

(A) Trading Privilege Holders shall have the ability to utilize execution drop ports and to enable cancel on drop disconnect functionality with respect to order match capacity allocations and quoting match capacity allocations that are associated with those drop ports.

(B) An execution drop port is a logical port used to receive drop copies of execution report messages relating to the execution of Orders.

(C) If cancel on drop disconnect is enabled by a Trading Privilege Holder for match capacity allocation, cancel on drop disconnect functionality will be triggered if all of the drop ports associated with that match capacity allocation become disconnected from the CFE System.

(D) A drop port will be treated as having become disconnected from the CFE System if the CFE System does not receive a heartbeat message through the drop port for a specified time interval configurable by the Trading Privilege Holder.

(E) If cancel on drop disconnect functionality is triggered for match capacity allocation, the CFE System will reject or cancel back to the sender any new Orders submitted through the match capacity allocation. This block on the submission of Orders shall remain in place until the CFE System receives heartbeat messages through a drop port associated with the match capacity allocation in accordance with the time interval configured by the Trading Privilege Holder.

(F) At the option of a Trading Privilege Holder activating cancel on drop disconnect functionality:

(1) If cancel on drop disconnect functionality is triggered for a match capacity allocation,

(2) the CFE System will also cancel

(3) all Day Orders or all Orders, as designated by the Trading Privilege Holder

(4) residing in the CFE System

(5) that were submitted through that match capacity

allocation

(6) for any product that is not in a suspended state.

(G) Cancel on drop disconnect functionality is not applicable with respect to order drop ports used to receive drop copies of Order messages.

(n)~~(l)~~ *Cancel on Reject Functionality*.

(i) Trading Privilege Holders shall have the ability to enable cancel on reject functionality by order match capacity allocation and by quoting match capacity allocation with respect to single Orders.

(ii) Cancel on reject functionality is enabled for each quoting match capacity allocation with respect to Quotes.

(iii) Cancel on reject functionality applies to both Futures and Options products.

(iv)~~(iii)~~ If cancel on reject functionality is enabled for a match capacity allocation for single Orders:

(A) the CFE System will cancel a resting single Order

(B) if the CFE System rejects or cancels back to the sender

(C) a Cancel Order or Cancel Replace/Modify Order submitted through that match capacity allocation

(D) to cancel and/or modify the resting single Order.

(v)~~(iv)~~ Cancel on reject functionality will cancel an existing bid or offer established by a previous Quote submitted through a quoting match capacity allocation if

(A) the CFE System rejects or cancels back to the sender

(B) a replacement Quote submitted through that quoting match capacity allocation

(C) to cancel and/or modify the existing bid or offer and

(D) the CFE System does not reject or cancel back to the sender the Bulk Message which contains that replacement Quote.

(o)~~(m)~~ *Clearing Member Requirement.* Clearing Members are required to obtain access to and utilize the risk control mechanisms that the Exchange makes available for use by Clearing Members. For each risk control mechanism made available to Clearing Members, the CFE System will in a form and manner prescribed and provided by the Exchange automatically treat any combination of product and EFID that does not have a risk control threshold set by the applicable Clearing Member as being set to a threshold level of zero.

Clearing Members may comply with the requirement under this Rule 513A(~~m~~o) by obtaining access to the risk control mechanisms made available to Clearing Members and either (i) setting the risk controls or (ii) relying upon the automated settings described in the preceding sentence.

* * * * *

714. Imposition of Fines for Minor Rule Violations

(a) - (e) No change.

(f) The following is a list of the rule violations subject to, and the applicable fines that may be imposed by the Exchange pursuant to, this Rule 714:

(i) No change.

(ii) **Failure to Identify Correct Customer Type Indicator Code. (Rule 403(b)(xi) and Rule 403(e)(v))**

Number of Cumulative Violations in Any Twelve (12) Month Rolling Period	*Fine Amount*
First Offense…………….………..........	Letter of Caution
Second Offense…..………………………	$2,500
Third Offense……..……...………………	$5,000
Fourth Offense……..……………………	$7,500
Subsequent Offenses………..…………..	$10,000

(iii) **Failure to Provide Correct Account Designation. (Rule 403(b)(xiii) and Rule 403(e)(vii))**

Number of Cumulative Violations in Any Twenty-Four (24) Month Rolling Period	*Fine Amount*
First Offense…………….………..........	Letter of Caution
Second Offense…..………………………	$2,500
Subsequent Offenses……..……...……….	$10,000

(iv) – (xv) No change.

(xvi) **Failure to Obtain Access to or Utilize Risk Control Mechanisms Made Available by the Exchange. (Rule 513A(~~m~~o))**

Number of Cumulative Violations in Any Twelve (12) Month Rolling Period	*Fine Amount*
First Offense…………….………..........	Letter of Caution
Second Offense…..………………………	$7,500
Subsequent Offenses…......………………	$15,000

(xvii) – (xviii) No change.

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1101. Imposition of Fines for Minor Rule Violations

(a) - (d) No change.

(e) If requested to do so by the Clearing Corporation, the Exchange may activate the kill switch function under Rule 513A(~~j~~l) in relation to a Clearing Member and to all Orders of any Trading Privilege Holder submitted with an EFID that is linked to a clearing number for that Clearing Member.

(f) - (j) No change.

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EXHIBIT 2

Changes to
Cboe Futures Exchange, LLC
Policies and Procedures Section of Rulebook

(Additions are shown in double-underlined text and deletions are shown in ~~stricken~~ text)

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I. ~~RESERVED~~Options Spread Types (Rule 406A)

Common Options spread types permitted under Rule 406A(a)(i)(C) include the spread types below as well as any other spread type from time to time approved by the Exchange.

Unless otherwise indicated, the futures Contracts that underlie all of the Options legs of each spread type below have the same futures expiration date.

Name	**Legs**	**Side**	**Ratio**	**Class Type**	**Strike**	**Options Expiration**
Long Call Calendar Spread	Leg 1 Leg 2	Buy Sell	1 1	Call Call	Same Same	Far Expiration Near Expiration
Long Put Calendar Spread	Leg 1 Leg 2	Buy Sell	1 1	Put Put	Same Same	Far Expiration Near Expiration
Bull Call Vertical Spread	Leg 1 Leg 2	Buy Sell	1 1	Call Call	Lower Higher	Same Same
Bear Put Vertical Spread	Leg 1 Leg 2	Buy Sell	1 1	Put Put	Higher Lower	Same Same
Bull Call Diagonal Spread	Leg 1 Leg 2	Buy Sell	1 1	Call Call	Lower Higher	Far Expiration Near Expiration
Bear Put Diagonal Spread	Leg 1 Leg 2	Buy Sell	1 1	Put Put	Higher Lower	Far Expiration Near Expiration
Strategy 1 (Variation of Long Call Calendar Spread)	Leg 1 Leg 2	Buy Sell	>=Sell Ratio <= Buy Ratio	Call Call	Same Same	Far Expiration Near Expiration
Strategy 2 (Variation of Long Put Calendar Spread)	Leg 1 Leg 2	Buy Sell	>=Sell Ratio <= Buy Ratio	Put Put	Same Same	Far Expiration Near Expiration

Name	**Legs**	**Side**	**Ratio**	**Class Type**	**Strike**	**Options Expiration**
Strategy 3 (Variation of Bull Call Vertical Spread)	Leg 1 Leg 2	Buy Sell	>=Sell Ratio <= Buy Ratio	Call Call	Lower Higher	Same Same
Strategy 4 (Variation of Bear Put Vertical Spread)	Leg 1 Leg 2	Buy Sell	>=Sell Ratio <= Buy Ratio	Put Put	Higher Lower	Same Same
Strategy 5 (Variation of Bull Call Diagonal Spread)	Leg 1 Leg 2	Buy Sell	>=Sell Ratio <= Buy Ratio	Call Call	Lower Higher	Far Expiration Near Expiration
Strategy 6 (Variation of Bear Put Diagonal Spread)	Leg 1 Leg 2	Buy Sell	>=Sell Ratio <= Buy Ratio	Put Put	Higher Lower	Far Expiration Near Expiration
Long Call Underlying Calendar Spread Leg 1 = Far Underlying Expiration Leg 2 = Near Underlying Expiration	Leg 1 Leg 2	Buy Sell	1 1	Call Call	Same Same	Same Same
Long Put Underlying Calendar Spread Leg 1 = Far Underlying Expiration Leg 2 = Near Underlying Expiration	Leg 1 Leg 2	Buy Sell	1 1	Put Put	Same Same	Same Same
Call Butterfly	Leg 1 Leg 2 Leg 3	Buy Sell Buy	1 2 1	Call Call Call	Lower Middle = Average of Low and High Higher	Same Same Same
Put Butterfly	Leg 1 Leg 2 Leg 3	Buy Sell Buy	1 2 1	Put Put Put	Lower Middle = Average of Low and High Higher	Same Same Same
Skewed Call Butterfly	Leg 1 Leg 2 Leg 3	Buy Sell Buy	1 2 1	Call Call Call	Lower Middle > Average of Low and High Higher	Same Same Same

Name	**Legs**	**Side**	**Ratio**	**Class Type**	**Strike**	**Options Expiration**
Skewed Put Butterfly	Leg 1 Leg 2 Leg 3	Buy Sell Buy	1 2 1	Put Put Put	Lower Middle < Average of Low and High Higher	Same Same Same
Box Spread (Combination of Bull Call Spread and Bear Put Spread along same strikes)	Leg 1 Leg 2 Leg 3 Leg 4	Buy Buy Sell Sell	1 1 1 1	Call Put Call Put	Lower Higher Higher (same as Leg 2 strike) Lower (same as Leg 1 strike)	Same Same Same Same

Other than for Block Trades, the spread types of Calendar Spread, Underlying Calendar Spread, and Diagonal Spread may not be utilized for IBHY options and IBIG options.

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III. Resolution of Error Trades (Rule 416)

A. *General Policy*

1. *Invoking Error Trade Policy*

Any request by a Trading Privilege Holder to invoke the error trade policy with respect to any trade must be made to the Trade Desk as soon as possible in a form and manner prescribed by the Exchange. Additionally, an employee of the Exchange can bring a potential error trade to the Trade Desk's attention. The Trade Desk may provide assistance only to Trading Privilege Holders. In all cases, if a potential error trade is not brought to the Trade Desk's attention within eight minutes after the relevant trade occurred, such trade will stand, except as provided in Part B below. Part A of this Policy and Procedure does not apply to Block Trades and Exchange of Contract for Related Position transactions.

2. *Notice that Trade Under Review*

When a potential error trade is brought to the Trade Desk's attention, the Trade Desk will disseminate a notice to the parties to the trade that the trade is under review.

3. *Procedure Followed by Trade Desk*

The Trade Desk will determine for any potential error trade that is brought to the Trade Desk's attention whether the trade price is in the "no bust range" for the relevant Contract, as set forth in the Rules governing such Contract. With respect to trades involving a Spread Order, the Trade Desk may also consider the theoretical net price of the Spread Order and apply the "no bust range" in relation to that theoretical net price (such that if the net trade price of the Spread Order was inside (outside) that "no bust range", all of the trades involving the Spread Order would be treated as inside (outside) the "no bust range"). In making a determination regarding the theoretical net price of a Spread Order, the Trade

Desk may consider all relevant factors, including the net of the true market prices of the Contracts that comprise the individual legs of the Spread Order (each determined in the manner described above) and the net price of other Spread Orders of the same type.

In determining whether the trade price is within the "no bust range," the Trade Desk will determine what the true market price for the relevant Contract was immediately before the potential error trade occurred. In making such determination, the Trade Desk may consider all relevant factors, including the last trade price for such Contract, a better bid or offer price, a more recent price in a different contract month or series ~~and~~, the prices of related contracts trading on the Exchange or other markets and the theoretical value of an Option as determined by the Exchange.

References above and in the Rules governing each Contract to consideration of all relevant factors in relation to the determination of the theoretical net price of a Spread Order and the true market price for a Contract are non-exclusive. Specific factors enumerated above and in the Rules governing each Contract in relation to those determinations are examples of factors that may be considered by the Trade Desk in making those determinations. The Trade Desk may consider other factors as well, such as, for example, the market conditions at the time of the trade, and may determine which factor or factors are relevant for consideration in each determination based upon the facts and circumstances in that particular instance.

4. *Trade Price Inside "No Bust Range"*

If the Trade Desk determines that the trade price of a potential error trade was inside the "no bust range" for the relevant Contract, such trade will stand and no further action will be taken. No such trade can be busted or adjusted by agreement of the parties to such trade.

5. *Futures Trade Price Outside "No Bust Range"*

The Trade Desk is authorized in its sole discretion to bust a Futures error trade that was outside the "no bust range" for the relevant Contract.

If the Trade Desk determines that the trade price of a potential Futures error trade was outside the "no bust range" for the relevant Contract, the Trade Desk will review the circumstances surrounding such trade to determine whether such trade should be busted. The factors that may be considered by Trade Desk in this connection include: the market conditions immediately before and after such trade occurred; the volatility of the market; the prices of related instruments in other markets; whether one or more parties to such trade believe that such trade was made at a valid price; and any other factors that the Trade Desk may deem relevant. The Trade Desk shall make its decision as promptly as practicable. Such decision shall be final.

If a trade is busted, the Trade Desk will cancel such trade.

If a trade is not busted, the parties thereto cannot reverse such trade, except as provided in Part B below. The parties to any such trade may also not "trade out" of such trade by entering into a pre-arranged offsetting transaction; *provided* that the parties may engage in pre-execution discussions with each other in accordance with procedures established by the Exchange from time to time.

6. *Options Trade Price Outside "No Bust Range"*

The Trade Desk is authorized in its sole discretion to adjust an Options error trade that was outside the "no bust range" for the relevant Contract, with the following exception.

If the adjustment of an Options error trade involving the execution of a Limit Order with a Customer Type Indicator Code of 4 would result in an adjusted trade price for the transaction that is greater than the limit price of the Limit Order if it was an Order to buy or that is less than the limit price of the Limit Order if it was an Order to sell, the Trade Desk will not adjust the trade and instead is authorized in its sole discretion to bust the trade.

If the Trade Desk determines that the trade price of a potential Options error trade was outside the "no bust range" for the relevant Contract, the Trade Desk will review the circumstances surrounding such trade to determine whether such trade should be adjusted or whether in the circumstance described in the preceding paragraph such trade should be busted. The factors that may be considered by Trade Desk in this connection include: the market conditions immediately before and after such trade occurred; the volatility of the market; the prices of related instruments in other markets; whether one or more parties to such trade believe that such trade was made at a valid price; and any other factors that the Trade Desk may deem relevant. The Trade Desk shall make its decision as promptly as practicable. Such decision shall be final.

If a trade is adjusted under Part A of this Policy and Procedure, the Trade Desk will adjust the price of the transaction to a price that is equal to the highest level of the "no bust range" if the original trade price was above that level or will adjust the price of the transaction to a price that is equal to the lowest level of the "no bust range" if the original trade price was below that level. If a trade is busted, the Trade Desk will cancel such trade.

If a trade is not adjusted or busted, the parties thereto cannot reverse such trade, except as provided in Part B below. The parties to any such trade may also not "trade out" of such trade by entering into a pre-arranged offsetting transaction; *provided* that the parties may engage in pre-execution discussions with each other in accordance with procedures established by the Exchange from time to time.

~~6~~ 7. *Notice of Final Action*

As soon as a decision regarding a potential error trade has been made, the Trade Desk will disseminate a notice to the parties to the trade, indicating whether such trade is busted, is adjusted or stands and indicating the adjusted transaction price if the trade is adjusted.

B. *Policy When Error Trade Not Brought to Trade Desk's Attention Within Time Limit*

This Part B applies only to any error trade that cannot be busted or adjusted under Part A above because it was not brought to the Trade Desk's attention within the eight-minute time limit specified therein. The procedures described in this Part B cannot be used if the trade price of the error trade in question was within the "no bust range" for the relevant Contract at the relevant time.

1. *Both Parties Agree to Transfer Position*

Upon the request of either party to an error trade that cannot be busted or adjusted under

Part A above, the Exchange may disclose to that party the identity of the other party to the trade. If both parties to an error trade agree, they may transfer the position resulting from such trade between each other. Any such transfer must be made at the original trade price and for the same quantity as the original trade. The parties may also, but are not required to, provide for a cash adjustment to compensate one side of such error trade. Any such transfer must be reported to the Exchange in a form and manner prescribed by the Exchange.

2. *Arbitration of Disputes*

If the parties to an error trade do not agree to transfer the position resulting from such trade, then the party causing such trade may file an arbitration claim against the Trading Privilege Holder representing the other side in accordance with the arbitration rules incorporated by reference into Chapter 8. Any such arbitration claim will be dismissed if the owner of the account on the other side of the error trade is not a Trading Privilege Holder or any Person otherwise subject to the jurisdiction of the arbitration. If not dismissed, arbitration proceedings will be conducted in accordance with the arbitration rules incorporated by reference into Chapter 8.

C. ***Voluntary Adjustment of Trade Price <u>When Error Trade Outside "No Bust Range" Is Busted</u>***

When an error trade outside of the "no bust range" for the relevant Contract is busted in accordance with Part A above, the parties to such trade may agree voluntarily to keep such trade but to adjust its price, provided all of the following conditions are met:

1. The quantity of the position being transferred must be identical to the quantity of the error trade that was busted.

2. In the case of an error trade below the true market price for the relevant Contract, the adjusted price must be the lowest price at which such Contract traded at or about the time of the error trade without such trades being busted. In the case of an error trade above the true market price for the relevant Contract, the adjusted price must be the highest price at which such Contract traded at or about the time of the error trade without such trades being busted.

3. The parties to any adjusted trade must report such trade to the Clearing Corporation not later than by the close of business on the Business Day immediately succeeding the day on which such error trade occurred. Any such adjusted trade must also be reported to the Exchange in a form and manner prescribed by the Exchange.

D. ***Busting Trades When Trading Privilege Holder is on Both Sides of the Trade***

Notwithstanding any other provision of this policy, the Trade Desk is authorized to bust any trade regardless of the price range in which the trade occurs if (i) the trade resulted from the matching of a Trading Privilege Holder's Order for the Trading Privilege Holder's own account with another Order for that Trading Privilege Holder's own account and (ii) the Trading Privilege Holder brings the relevant trade to the Trade Desk's attention within eight minutes after the relevant trade occurred in a form and manner prescribed by the Exchange. Notwithstanding the application of the preceding sentence, Trading Privilege Holders remain obligated to comply with the Rules of the Exchange, including without limitation, Rule 616 (Wash Trades).

E. *Busting Trades That Occur After a Regulatory Halt is Instituted*

As provided by Rule 417, trades in a Single Stock Future or in a Narrow-Based Stock Index Future made after the time an underlying regulatory halt is instituted and before trading has been resumed in the affected Security Future Contract are subject to cancellation or “bust” by the Trade Desk.

F. *Busting or Adjusting Trades in the S&P 500 Variance Futures Contract*

In its sole discretion, the Trade Desk is authorized to bust or adjust a trade in the S&P 500 Variance futures contract if it determines that there has been an error in the calculation of the number of variance units or the futures converted contract price for the trade (referred to as a standard formula input error). The determination as to whether a standard formula input error occurred is solely within the Trade Desk’s discretion. The busting or adjustment of a trade by the Trade Desk due to a standard formula input error may only occur on the same calendar or Business Day that the trade occurred.

G. *Busting or Adjusting Block Trades and the Contract Leg of Exchange of Contract for Related Position Transactions Inputted with Mistake, Inaccuracy or Error*

The Trade Desk is authorized to bust or adjust a Block Trade or the Contract leg of an Exchange of Contract for Related Position transaction if both (i) there was a mistake, inaccuracy or error in the information that was inputted into the CFE System for the Block Trade or the Contract leg of the Exchange of Contract for Related Position transaction and (ii) an Authorized Reporter or party on each side of the transaction agree upon the mistake, inaccuracy or error that occurred and notify the Trade Desk of the mistake, inaccuracy or error in a form and manner prescribed by the Exchange by no later than 4:00 p.m. Chicago time on the Business Day of the transaction.

H. *Busting or Adjusting Trades Not Correctly Processed Due to System Malfunction*

The Trade Desk is authorized to bust or adjust any trade that is not correctly processed by the CFE System due to a system malfunction.

I. *Busting or Adjusting Trades to Mitigate Market Disrupting Events*

The Trade Desk, in consultation with an Exchange officer, is authorized to bust or adjust any trade (i) when necessary to mitigate market disrupting events caused by malfunctions in the CFE System or errors in Orders submitted by Trading Privilege Holders and market participants or (ii) if the Trade Desk believes that allowing the trade to stand as executed could have a material adverse effect on the integrity of the market.

J. *Busting Trades Rejected by the Clearing Corporation*

The Trade Desk is authorized to bust any trade that is not accepted for clearing by the Clearing Corporation.

K. *Busting Leg Components of Block Trade and Exchange of Contract for Related Position Spread Transactions*

Upon the request of one of the parties to the transaction, the Trade Desk is authorized to bust the Contract leg components of a Block Trade or Exchange of Contract for Related position transaction that are part of a spread or strip if the submission of one of the Contract leg components of the transaction is rejected by the CFE System because it would cause a net long (short) risk control pursuant to Rule 513A(c) to be exceeded.

L. *Notice of Trade Busts and Adjustments*

The Exchange shall disseminate notice of any bust of a trade pursuant to this Policy and Procedure III through Exchange Market Data. The Exchange shall provide notice of any adjustment of a trade pursuant to this Policy and Procedure III to the parties to that trade.

M. *Cancellation of Orders Due to System Malfunction*

The Trade Desk is authorized to cancel Orders as it deems necessary to maintain a fair and orderly market if a technical or systems issue or malfunction occurs with the CFE System. The Trade Desk shall disseminate notice to impacted Trading Privilege Holders of any cancellation of Orders pursuant to this Part O.