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October 24, 2005

Ms. Jean A. Webb  
Office of the Secretariat  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21<sup>st</sup> Street, NW  
Washington, DC 20581

RE: Section 5c(c)1 and Regulation 40.6 Submission. Exchange Certification of Amendments to the Interpretation of Rule 580. CME Submission #05-107

Dear Ms. Webb:

On September 28, 2005, Chicago Mercantile Exchange ("CME" or "Exchange") approved the following amendments to the Interpretation of Rule 580 – Globex Trade Algorithms. These amendments extend implied spreading to CME agricultural futures traded electronically on the Globex trading platform, commonly referred to as CME E-Livestock futures. Notice that these changes do not apply to the pit-traded versions of these products.

Amendments to the Interpretation of Rule 580 are presented below, with additions underlined and deletions bracketed and overstruck:

**INTERPRETATION OF RULE 580.— GLOBEX TRADE ALGORITHMS**

**Pro Rata Allocation Algorithm**

The Exchange has determined to use a Pro Rata Allocation Algorithm to match orders in Eurodollar and One-Month LIBOR futures contracts entered in the GLOBEX Electronic Trading System. Unless specifically referenced in this Interpretation, all other futures and options contracts, including Eurodollar options, will continue to use the default matching algorithm based on price and time priority. Eurodollar futures contracts were chosen to use the Pro Rata Allocation Algorithm because they usually trade in a narrow price range, and each price level is represented by size. The Pro Rata Allocation Algorithm operates as follows:

- After the opening, Time Priority is assigned to the first order at a price that betters the market when the order is received (the "TOP order"). Only one buy order and one sell order can have Time Priority at any given time. Orders with Time Priority (TOP orders) are matched first regardless of size.
- An order will lose Time Priority when an order at a better price is entered. Example: An order to buy 50 contracts is entered at 105. This order is the first order in at this price level. Another order comes in and betters the market, buy 25 contracts at 106. The order at the 106 level has Time Priority now and is the TOP order. The market sells off and the bid for 25 contracts at 106 is hit. The bid for 50 contracts at 105 does not regain its Time Priority and will be allocated according to size along with all the other 105 bids.
- After the Time Priority or TOP order is filled, the Pro Rata Allocation Algorithm is applied to the remainder of the resting orders at that price level. The Algorithm will attempt to match quantities to orders in proportion to the size of each order. Example: There are orders to buy 10 and 20 contracts at the same price, and neither order has Time Priority. A sell order for 15 contracts at that price is entered. The Algorithm will match the sell order against the buy orders so that 50% of each buy order is matched. The minimum quantity the Pro Rata Allocation Algorithm will allocate is two contracts.
- If the "Initial Allocation" results in a fraction, the Algorithm will "Round Down" or drop the fractional amount. Any contracts still to be allocated after the "Initial Allocation" has run will be allocated on a first in, first out basis.

#### Implied Order Algorithm

The Exchange has determined to use an Implied Order Algorithm to create orders for selected individual contracts, calendar spreads, and butterfly spreads in Eurodollar futures and One-Month LIBOR futures contracts, and in selected individual contracts and calendar spreads in agricultural futures contracts, entered in the GLOBEX Electronic Trading System.

**Eurodollar Futures and One-Month LIBOR Futures Contracts:** For the purpose of this rule interpretation, buying one butterfly spread (butterfly) means simultaneously buying and selling contracts with three different expirations in the following proportion: buying one contract with the most nearby of the three expirations, selling two contracts with the second of the three expirations and buying one contract with the most deferred of the three expirations. Unless specifically referenced in this Interpretation, all other futures and options contracts, will continue to use the Pro Rata Allocation Algorithm. This Implied Order Algorithm for Eurodollar futures and One-Month LIBOR futures contracts operates as follows:

- A "1st Generation Implied In" order for a calendar spread may be derived on the GLOBEX system from actual orders in the individual contracts or legs of the calendar spread. E.g., a buy order for 15 contracts at 95.05 in a nearby Eurodollar futures contract and a sell order for 10 contracts at 95.00 in a deferred Eurodollar futures contracts creates a 1st Generation Implied In order to buy 10 calendar spreads at 0.05.
- A "1st Generation Implied Out" order for an individual contract may be derived on the GLOBEX system from (1) actual orders in a calendar spread that includes that individual contract; and (2) actual orders in the other individual contract that comprises the calendar spread. E.g., a buy order for 5 contracts at 95.15 in a nearby Eurodollar futures contract and a sell order for 10

calendar spreads, that include that nearby contract and a deferred contract, at 0.05 creates an Implied Out order to buy 5 contracts in the deferred leg of calendar spread at 95.10.

- A "2nd Generation Implied In" order for a calendar spread may be derived on the GLOBEX system from (1) actual orders in one individual contract of the calendar spread; and (2) 1st Generation Implied Out orders in the other individual contract that comprises the calendar spread.
- A "2nd Generation Implied Out" order for an individual contract may be derived on the GLOBEX system from (1) actual orders in a calendar spread that includes that individual contract; and (2) 1st Generation Implied Out orders in the other individual contract that comprises the calendar spread.
- Implied In orders for calendar spreads and Implied Out orders for an individual contract based on orders for calendar spread and another individual contract shall be for a quantity representing the smaller of the two orders from which the Implied order is derived.
- The GLOBEX system will create 2nd Generation Implied In and Out orders, for matching purposes only, if there are insufficient quantities of actual and 1st Generation Implied In and Out orders to satisfy arriving orders. This may result in a match with 2nd Generation Implied orders at more favorable prices than had previously been available. Second Generation Implied orders will not be disseminated to the marketplace.
- A "1st Generation Implied In" order for a butterfly spread may be derived on the GLOBEX system from (1) actual orders in the three individual contracts or legs of the butterfly spread, e.g. a buy order for 10 contracts at 95.15 in the first of the three contract months, a sell order for 20 contracts at 95.00 in the second of the three contract months, and a buy order for 10 contracts at 94.95 in the last of the three contract months create a 1st Generation Implied In order to buy 10 butterfly spreads at 0.10; (2) actual orders in two calendar spreads, e.g., a buy order for 10 calendar spreads between the first two of the three contract months at 0.15 and a sell order for 10 calendar spreads between the last two of the three contract months at 0.05 create a 1st Generation Implied In order to buy 10 butterfly spreads at 0.10; or (3) actual orders in two individual contracts and a calendar spread, e.g. a buy order for 10 contracts at 95.15 in the first of the three contract months, a sell order for 10 contracts at 95.00 in the second of the three contract months and an actual sell order for 10 calendar spreads between the last two of the three contract months at 0.05 create a 1st Generation Implied In order for 10 butterfly spreads at 0.10.
- A "1st Generation Implied Out" order for an individual contract from a butterfly spread may be created from an actual order for a butterfly spread with (1) an actual order for a calendar spread and an actual order for an individual contract, e.g. a buy order for 10 butterfly spreads at 0.10, a buy order for 10 calendar spreads between the last two of the three contract months at 0.05, and a buy order for 10 contracts in the second of the three contract months at 95.00 create a 1st Generation Implied Out buy order for 10 contracts in the nearby month at 95.15; or (2) actual orders for two of the three individual contract months, e.g. a buy order for 10 butterfly spreads at 0.10, a buy order for 20 contracts in the second of the three contract months at 95.00 and a sell order for 10 contract in the last of the three contract months at 94.95 create 1st Generation Implied Out buy order for 10 contracts in the nearby month at 95.15. A "1st Generation Implied Out" order for a calendar spread from a butterfly spread may be created from an actual order for a butterfly spread with (1) an actual order for a calendar spread, e.g. a buy order for 10 butterfly spreads at 0.10, a buy order for 10 calendar spreads between the last two of the three contract

months at 0.05 create a 1st Generation Implied Out buy order for 10 calendar spreads between the first two of the three contract months at 0.15; or (2) actual orders for two of the three individual contract months, e.g. a buy order for 10 butterfly spreads at 0.10, a buy order for 10 contracts in the second of the three contract months at 95.00 and a sell order for 10 contract in the last of the three contract months at 94.95 create 1st Generation Implied Out buy order for 10 calendar spreads between the first two of the three contract months at 0.15.

- Note that an Implied Out order for the second of the three contract months from a butterfly spread is for two contracts. These two contracts may have different implied prices, e.g. a buy order for 1 butterfly spread at 0.15, a sell order for 1 contract in the first of the three contract months at 95.15 and a sell order for 1 contract in the last of the three contract months at 94.95 creates implied orders in the second of the three contract months to sell 1 contract at 95.00 and 1 contract at 94.95. Regardless of whether the implied prices for the two contracts are identical, the trade can only occur if both contracts can be matched opposing orders. In the event an opposing order exists for one of the two contracts in the second leg of butterfly spread, an Implied Out order for the remainder may be created.
- A "2nd Generation Implied In" order for a butterfly spread may be derived on the GLOBEX system from a combination of actual orders in the individual contracts and 1st Generation Implied Out orders from calendar spreads for the remaining leg(s) in the butterfly spread.
- A "2nd Generation Implied out" order for an individual contract from a butterfly spread may be derived on the GLOBEX system from an actual order for a butterfly spread and a combination of actual and implied orders in the individual contracts and/or calendar spreads.
- The GLOBEX system will disseminate 1st Generation Implied In orders for butterfly spreads and 1st Generation Implied Out orders for the first and the last of the three contract months from a butterfly spread order. 1st Generation Implied Out orders for the second of the three contract months from a butterfly spread order are not disseminated due to the fact that such orders can only be filled if both contracts for each spread can be matched to opposing orders. 2nd Generation Implied orders are created for matching purpose only and are also not disseminated.
- Implied In and Implied Out orders created by the Implied Order Algorithm shall be processed per the Pro Rata Allocation Algorithm described above, except that
  1. Implied orders shall not be granted Time Priority or considered the TOP order;
  2. In the event that contracts remain to be allocated after the Initial Allocation, as described in the Pro Rata Allocation Algorithm above, and two or more orders have identical quantities and are the largest orders, allocations shall be made to Implied orders only after allocation to actual orders is complete. Allocations to Implied orders shall be made on the basis of maturity of the contract(s) where nearby contracts receive priority over deferred contracts.
- Market orders that are entered into the GLOBEX System where the Implied Order Algorithm is effective shall be converted into limit orders and filled at the best available price from actual orders or 1st Generation Implied orders. If the quantity of the market order exceeds the quantity of opposite actual and 1st Generation Implied orders, GLOBEX will create, and allocate the remaining contracts to, 2nd Generation Implied orders. Allocations to Implied orders shall be made on the basis of maturity of the contract(s) where nearby contracts receive priority over

deferred contracts. Any part of such market order that is not filled at the limit price or better shall remain as a resting order at such limit price until filled or cancelled.

- Stop limit orders, that are entered into the GLOBEX System where the Implied Order Algorithm is effective, are activated and placed into the order book when the order's specified stop price is traded, at which time the order may be executed at the specified limit price or better. Such stop limit orders are initially allocated to actual and 1st Generation Implied orders. If the quantity of the stop limit order exceeds the quantity of opposite actual and 1st Generation Implied orders, GLOBEX will create, and allocate the remaining contracts to, 2nd Generation Implied orders. Allocations to Implied orders shall be made on the basis of maturity of the contract(s) where nearby contracts receive priority over deferred contracts. Any part of such stop limit order that is not filled at the limit price or better shall remain as a resting order at such limit price until filled or cancelled.

**Agricultural Futures Contracts:** Unless specifically referenced in this Interpretation, all other futures and options contracts will continue to use the Pro Rata Allocation Algorithm. This Implied Order Algorithm for Agricultural futures contracts operates as follows:

- A "1st Generation Implied In" order for a calendar spread may be derived on the GLOBEX system from actual orders in the individual contracts or legs of the calendar spread. E.g., a buy order for 15 contracts at 85.05 in a nearby Live Cattle futures contract and a sell order for 10 contracts at 85.00 in a deferred Live Cattle futures contract creates a 1st Generation Implied In order to buy 10 calendar spreads at 0.05.
- A "1st Generation Implied Out" order for an individual contract may be derived on the GLOBEX system from (1) actual orders in a calendar spread that includes that individual contract; and (2) actual orders in the other individual contract that comprises the calendar spread. E.g., a buy order for 5 contracts at 85.15 in a nearby Live Cattle futures contract and a sell order for 10 calendar spreads, that include that nearby contract and a deferred contract, at 0.05 creates an Implied Out order to buy 5 contracts in the deferred leg of calendar spread at 85.10.
- A "2nd Generation Implied In" order for a calendar spread may be derived on the GLOBEX system from (1) actual orders in one individual contract of the calendar spread; and (2) 1st Generation Implied Out orders in the other individual contract that comprises the calendar spread.
- A "2nd Generation Implied Out" order for an individual contract may be derived on the GLOBEX system from (1) actual orders in a calendar spread that includes that individual contract; and (2) 1st Generation Implied Out orders in the other individual contract that comprises the calendar spread.
- Implied In orders for calendar spreads and Implied Out orders for an individual contract based on orders for calendar spread and another individual contract shall be for a quantity representing the smaller of the two orders from which the Implied order is derived.
- All implied orders will be derived by the GLOBEX system subject to the applicable daily price limits for that particular product and contract month.
- The GLOBEX system will create 2nd Generation Implied In and Out orders, for matching purposes only, if there are insufficient quantities of actual and 1st Generation Implied In and Out orders to satisfy arriving orders. This may result in a match with 2nd Generation Implied orders at

more favorable prices than had previously been available. Second Generation Implied orders will not be disseminated to the marketplace.

- Implied In and Implied Out orders created by the Implied Order Algorithm shall be processed per the LMM Allocation Algorithm (Option B) described below, except that
  1. Implied orders shall not be granted Time Priority or considered the TOP order;
  2. In the event that contracts remain to be allocated after the Initial Allocation, as described in the Pro Rata Allocation Algorithm above, and two or more orders have identical quantities and are the largest orders, allocations shall be made to Implied orders only after allocation to actual orders is complete. Allocations to Implied orders shall be made on the basis of maturity of the contract(s) where nearby contracts receive priority over deferred contracts.
- Market orders, that are entered into the GLOBEX System where the Implied Order Algorithm is effective, shall be converted into limit orders and filled at the best available price from actual orders or 1st Generation Implied orders. If the quantity of the market order exceeds the quantity of opposite actual and 1st Generation Implied orders, GLOBEX will create, and allocate the remaining contracts to, 2nd Generation Implied orders. Allocations to Implied orders shall be made on the basis of maturity of the contract(s) where nearby contracts receive priority over deferred contracts. Any part of such market order that is not filled at the limit price or better shall remain as a resting order at such limit price until filled or cancelled.
- Stop limit orders, that are entered into the GLOBEX System where the Implied Order Algorithm is effective, are activated and placed into the order book when the order's specified stop price is traded, at which time the order may be executed at the specified limit price or better. Such stop limit orders are initially allocated to actual and 1st Generation Implied orders. If the quantity of the stop limit order exceeds the quantity of opposite actual and 1st Generation Implied orders, GLOBEX will create, and allocate the remaining contracts to, 2nd Generation Implied orders. Allocations to Implied orders shall be made on the basis of maturity of the contract(s) where nearby contracts receive priority over deferred contracts. Any part of such stop limit order that is not filled at the limit price or better shall remain as a resting order at such limit price until filled or cancelled.

#### Lead Market Maker (LMM) Allocation Algorithms

The Exchange may designate, per the provisions of Rule 581, GLOBEX Lead Market Maker Program, multiple Lead Market Makers (LMMs) in specified futures and option markets traded on the GLOBEX Electronic Trading System. The Exchange has determined to use either LMM Allocation Algorithm (Option A) or LMM Allocation Algorithm (Option B) as described below to match orders in such specified markets. Two-, Five- and Ten-Year Swap Rate futures shall be subject to LMM Allocation Algorithm (Option A). Weather futures, agricultural futures and CPI futures shall be subject to LMM Allocation Algorithm (Option B). All other futures and options contracts, unless specifically referenced in this Interpretation, will continue to use the normal matching algorithm based on price and time priority.

1. The LMM Allocation Algorithm (Option A) operates as follows:
  - After the opening, Time Priority is assigned to the first order at a price that betters the market when the order is received. Only one buy order and one sell order can have Time

Priority at any given time. Orders with Time Priority are matched first regardless of whether it was entered by an LMM or non-LMM.

- An order will lose Time Priority when an order at a better price is entered. Example: An order to buy 50 contracts is entered at 105. This order is the first order in at this price level. Another order comes in and betters the market, buy 25 contracts at 106. The order at the 106 level has Time Priority now. The market sells off and the bid of 25 contracts at 106 is hit. The bid for 50 contracts at 105 does not regain its Time Priority and will be allocated according to the LMM Allocation Algorithm along with all the other 105 bids.
  - After the Time Priority order is filled, the LMM Allocation Algorithm is applied to the remainder of the resting orders at that price level. The LMM Algorithm will attempt to allocate a specified minimum proportion of the trade to the LMM provided that the LMM's bid or offer matches the best available bid or offer. Any contracts still to be allocated after the "LMM Allocation" are allocated based upon the time of order entry.
  - If the allocation to the LMM results in a fraction, the LMM Algorithm will "Round Down" to the nearest integral contract multiple.
  - In the event that the Exchange designates a single LMM in a specified market, the LMM's allocated proportion shall be 40%. In the event that the Exchange designates two (2) LMMs in a specified market, each LMM shall be allocated 20%. In the event that the Exchange designates three (3) LMMs in a specified market, each LMM shall be allocated 15%.
2. The LMM Allocation Algorithm (Option B) operates in a manner similar to Option A as described above, except that LMMs will be allocated a specified minimum proportion of the trade provided that the LMM's bid or offer matches the best available bid or offer regardless of whether the LMM had achieved Time Priority.

#### Best Price Priority Allocation Algorithm

The Exchange has determined to use a Best Price Priority Allocation Algorithm to match orders in foreign exchange (currency and currency cross-rate and E-mini) futures calendar spreads (intra-currency futures spreads) entered in the GLOBEX Electronic Trading System. Unless specifically referenced in this Interpretation, all other futures and options contracts, including currency options, will continue to use the normal matching algorithm based on price and time priority. Foreign exchange futures calendar spread contracts were chosen to use a Best Price Priority Allocation Algorithm because they, like Eurodollar futures contracts, usually trade in a narrow price range, and price levels are represented by size, particularly during the rollover period. The Best Price Priority Allocation Algorithm operates as follows:

- After the opening, Price Priority is assigned to all orders at the price that betters the market when orders are received. All buy orders and all sell orders at the best price have Price Priority at any given time. Orders with Price Priority at the best price are matched according to an Allocation Algorithm in proportion to all orders bid or offered at that best price as follows. Example: Suppose the best bid of a June/September calendar spread is 14 and a total of 1,210 contracts are bid at that price by four different orders as follows: 1,000 contracts by Order 1; 100 contracts by Order 2; 100 contracts by Order 3; and 10 contracts by Order 4, then when a sell order hits the 14 bid by selling 500 contracts, the GLOBEX system will allocate 414 contracts ( $1,000/1,210 \times$

500 plus 1 remainder) to Order 1; 41 contracts each ( $100/1,210 * 500$ ) to Orders 2 and 3; and 4 contracts ( $10/1,210 * 500$ ) to Order 4.

- All orders at the best price will lose Price Priority when an order (or orders) at a better price is (are) entered. Example: An order to buy 50 contracts is entered at 12. This order is the first order in at this price level. Another order comes in and betters the market, buy 25 contracts at 13. The buy order at the 13 level has Price Priority now. The market sells off and the bid for 25 contracts at 13 is hit. The bid for 50 contracts at 12 regains its Price Priority because it is now the best price and this order will be allocated according to size along with all the other 12 bids.
- If the "Initial Allocation" results in a fraction, the Algorithm will "Round Down" or drop the fractional amount. Any contracts still to be allocated after the "Initial Allocation" has run are added to the largest order. If two or more orders have identical quantities and are the largest orders, the Algorithm will perform an "Electronic Coin Flip" and assign the remainder to the order that wins.

Use of the Best Price Priority Allocation Algorithm for foreign exchange futures calendar spreads will be effective on Sunday, May 19, 2002, for the GLOBEX trade date of Monday, May 20, 2002.

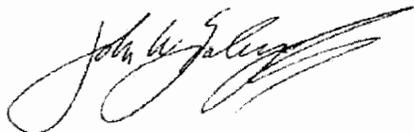
(End of Interpretation of Rule 580)

These amendments will apply to all CME E-Livestock futures, beginning with the Globex-traded versions of Live Cattle and Lean Hogs, on Monday, October 31, 2005.

The Exchange certifies that these amendments comply with the Commodity Exchange Act and rules thereunder.

If you have any questions regarding this submission, please contact Mr. Paul Peterson at (312) 930-4587 or via e-mail at [ppeterso@cme.com](mailto:ppeterso@cme.com). Please refer to CME Submission #05-107 in all correspondence regarding this matter.

Sincerely,



John W. Labuszewski, Managing Director  
Research & Product Development