## July 21, 1994

Re: Office Order Preparation System

Dear X:

This letter responds to your letter dated June 13, 1994, in which you requested confirmation from the Division of Trading and Markets ("Division") regarding whether X's implementation of an automated order routing and trade accounting system (the "System"), as described, complies with Commodity Futures Trading Commission ("Commission") Regulations 1.31 and 1.35.1 You further requested the Division's confirmation that it would not recommend any enforcement action be initiated against X if the System is implemented as described. Based upon the representations made in your letter and your discussions with Commission staff, 1/2 we understand the facts to be as described below.

You describe the System as a fully automated order preparation and recordkeeping system designed to replace X's current system of paper order tickets with a computer generated and stored "ticket" that will record more accurately and permanently the time at which an order is entered and a fill is reported. You state that the System is intended to create an audit trail superior to that available using paper order tickets, and will allow full and prompt access to stored records by the Commission or the Department of Justice ("DOJ"), as necessary, in either hard copy, on diskette, or on CD-ROM, as requested.

Using the System, X sales personnel will prepare a computerized office order "ticket," instead of a paper ticket, immediately upon receipt of a customer order. Sales personnel will enter into the System all of the information currently

On January 20, 1993, X submitted a letter to the Division regarding the System. The 1993 letter, which was substantially similar to X's current submission, is superseded by the current submission.

The Division and the Commission's Office of Information Resources Management ("OIRM") have made two on-site visits to review the System. The System was examined initially in the middle of its development, and subsequently in March 1994.

required under Commission Regulation 1.35 and specified on a X paper order ticket, including account identification, buy/sell, contract, month, quantity, order type and price, if any. For both futures and option orders, the System will record automatically the precise time, to the nearest second, at which the order was entered and the identity of the sales person entering the order.

When an option order has been entered, the System will record automatically a second time indicating when the sales person transmits the order to the exchange floor. For both futures and option transactions, the time when the sales person enters the fill information will be recorded automatically.  $^{\underline{3}'}$  Where "bunched" orders are entered for multiple accounts, the System will allocate executed transactions to the bunched order accounts in accordance with a predetermined allocation scheme previously filed with X and stored on the System, thereby reducing the opportunity for abusive trade allocation practices.

Once an order is entered and the entry time is recorded, the System will identify and record any changes to the initially input information including the identity of the sales person making any change, the time such change was made and the nature of the change. The System will retain the information included in the original order and will allow full inspection of the changed information. In contrast, you state that under the current paper ticket system, it is possible for order tickets to be altered without a clear record of the original information or the time such alterations were executed.

You indicate that the System will store all records on an optical "Write Once Read Many" ("WORM") storage device in ASCII

<sup>3/</sup> You indicate that the System will be implemented in phases. During the first phase (the testing period which is nearing completion), the System will be used only for office order ticket preparation and recordation by X sales personnel. This phase will not alter the manner in which orders will be sent to the floor or fills reported from the floor. persons will continue to transmit orders to the floor by telephone and will indicate simultaneously by keystroke on the System that the order has been transmitted. The System will record automatically the time of such order entry. a subsequent implementation phase, the time of which has yet to be determined, the System will transmit the order to the floor by computer link, and will record, without further action by the sales person, the time the order was transmitted back to X's office.

format. All records related to each order will be written directly onto a WORM device at the time a sales person enters or changes an order. X will provide continuous, automatic verification of the quality and accuracy of the information stored by using three separate checks. First, two separate devices will be used to record all input, thereby providing protection against a physical failure on any one device. Second, the System's application software will confirm the successful completion of each recordation of information. Third, to insure the logical integrity of the data, X will compare automatically the detail stored on the optical disk against a daily transaction log.

Each optical disk will contain data for one month, after which a directory and index will be etched permanently onto the disk and a new, blank disk will be inserted and marked as the next disk in the chronological series. As previously indicated, records produced and retained by the System will be available for production to the Commission or the DOJ in hard copy, on diskette, or on CD-ROM.<sup>4</sup> In sum, you represent that except for the fact that paper will not be generated routinely, the order preparation and record retention function of the System will be the same or better than X's current paper system.

Section 4g(a) of the Commodity Exchange Act requires, among other things, that each futures commission merchant ("FCM") keep books and records as required by the Commission and make such books and records available to inspection by any Commission or DOJ representative. Pursuant to Commission Regulation 1.35(a), each FCM is required to keep "full, complete, and systematic records, together with all pertinent data and memoranda, of all transactions relating to its business of dealing in commodity futures, commodity options, and cash commodities." Regulation 1.35(a) further provides that the records, which specifically include all unfilled, filled or canceled orders, are to be maintained in accordance with the requirements of Regulation 1.31.

In 1993, the Commission amended its general recordkeeping requirements set forth under Regulation 1.31 to establish conditions under which certain computer generated records written on optical disk could be used in lieu of hard-copy computer reports. 58 Fed. Reg. 27458 (May 10, 1993). Regulation

Specifically, you state that the System will allow the physical production of stored records "as or more quickly than would be the case if such records were produced from a 'hard copy' record preparation and retention system."

1.31(b)(1) generally authorizes computer generated records to be substituted for hard copy if they are "immediately produced on optical disk in conformity with the requirements of [Regulation 1.31(d)] and kept in that form." Pursuant to Regulation 1.31(d), any optical storage system used to preserve records:

must allow for the preservation of the records . . . using non-rewritable, WORM (write once read many) media. All records preserved on optical media . . . must be preserved on non-rewritable WORM media. The technology must have write-verify capabilities that continuously and automatically verifies the quality and accuracy of the information stored and automatically corrects quality and accuracy defects.

Further, optical storage systems authorized under Regulation 1.31(d)(1) must: (1) use removable disks; (2) serialize the disks; (3) time-date all files of information placed on the disk using a permanent and non-erasable time-date that reflects the computer run time of the file; and (4) write files in ASCII or EBCDIC format.

Under Regulation 1.31(c)(1)(i) and (iii), persons substituting records on optical disk for hard copy shall have on their premises at all times and make available to the Commission or the DOJ, facilities to display information stored on optical disk, and to produce immediately complete, accurate and easily readable hard copies of such stored information. In addition, Regulation 1.31(d)(2) requires that optical storage systems users maintain on their premises, keep current, grant Commission or DOJ access to and surrender promptly all information necessary to read, convert to hard copy and download records stored in optical storage units, including directory structures and indices.  $\frac{5}{}$ 

Regulation 1.35(a-1)(1) requires that immediately upon receiving a customer's or option customer's order, an FCM prepare a "written record" of such order including the account identification and order number, and a time-stamp indicating the date and time, to the nearest minute, the order is received. The regulation also requires that an option customer's orders be marked with a second time-stamp indicating the date and time the order was transmitted for execution. For all orders, Regulation 1.35(a-1)(4) requires a final time-stamp indicating the date and time the report of execution is made.

Directories and indices permitting the immediate location of any particular file or record stored on optical disk are required under Regulation 1.31(c)(2)(ii).

Having considered the proposed implementation of the System, the Division and OIRM conclude as follows:

The System, as described, appears to comply with the computer generated record standards of Regulation 1.31. required under the regulation, the System will store all records in ASCII format using a WORM storage device. The System will use removable, monthly serialized disks and will time-date all recorded information with a permanent, non-erasable time-stamp. The System also will store information such that any changes will be identified automatically including the identity of the person making the change, the time the change was made and both the original and amended information. Further, the System's application software will confirm the recorded information and X will compare automatically the detail stored on an optical disk against a daily transaction log. X has stated that the stored information will be fully and promptly accessible to the Commission or DOJ.

With regard to Regulation 1.35, the System, as represented, will record the required account identification and order information on the optical disk media. The System will record automatically the required times of receipt, transmission and report of execution information for futures and option orders as appropriate. Although the System will not generate a "written record" as provided by Regulation 1.35, records of the System's stored information will be generated in automated media and will be available readily in hard copy and other media.

The System, as described, also should provide regulatory benefits. First, unlike the current paper order method, order information will be recorded automatically in a manner that would be difficult to alter without detection of the nature of such alteration, the time of the alteration and the party making the alteration. Second, the timing information for futures and option orders will be recorded automatically to the nearest second, as compared to the "nearest minute" standard required under current regulation. Third, misallocation of order fills for bunched orders should be more difficult because of the System's automatic allocation feature. Fourth, the Commission's and DOJ's access to the information should be enhanced due to the relative ease of retrieval and the various media on which the information could be obtained.

Based on the representations made in your letter, the Division and OIRM believe that X's proposed implementation of the System would not be inconsistent with Commission Regulations 1.31 and 1.35. The System will maintain or improve the standards for office order preparation and retention presently satisfied by X

and required under applicable Commission regulations. Accordingly, neither the Division nor OIRM would recommend that any enforcement action under Regulations 1.31 or 1.35 be initiated against X if it implemented the System as described in your letter.

Please be advised that the Division and OIRM's conclusion is conditioned upon the System being implemented and maintained in the manner described in your letter. Any different, omitted or changed facts or conditions regarding the implementation of the System might require a different conclusion. Finally, you should note that the views expressed herein are solely those of the Division and OIRM and are not binding on the Commission or any other division or office of the Commission.

Very truly yours,

Andrea M. Corcoran Director