Mr. John R. Birmingham, Vice President Electronics Systems Center New York Stock Exchange Eleven Wall Street New York, New York 10005

Dear Mr. Birmingham:

At the meeting between our respective staffs on May 17, 1966 on the progress made by the exchange in the automation of its facilities we agreed to write you concerning the items on which we desire to additional information in view of the importance of the automation program and may be useful to first online some of the background of our mutual interest in this matter.

On October 31, 1963 members of the commission's staff met with the NYSE staff to discuss the implementation of the Special Studies recommendations in this area. At that time staff clarified its position to the Exchange with respect to the data that should be captured for each transaction. The data to be collected consisted of:

The identity of the underlying brokers on both sides; Whether the sale was long, short or short exempt;

- -- Whether the specialists acted as agent;
- -- Whether the principle is a specialist floor trader online dealer or member off floor.

We also believed it desirable to have a record of the:

- -- Executing broker (if different from underlying);
- -- Purchases to cover short positions; and types of order.

We pointed out that the collection of these data would greatly simplify the surveillance task of both the Exchange and Commission. It would allow for more meaningful surveillance over specialists and registered traders as well as members of the Exchange. Also it no longer would take weeks and even months to reconstruct the market of a particular security.

The Exchange advised us at that time that its equipment orders had already been placed and programming was beginning. The Exchange further noted that it was using an untried technique, i.e., the use of a mark sense card in a dynamic

noncontrolled environment, and that the Exchange had decided to go ahead on a limited basis.

In December, 1963 Mr. Saul wrote to Mr. Funston emphasizing the importance of our request and the benefits to the exchange and the commission if these data were collected.

## Mr. Funston in his replies stated:

"... I do want to make it clear that our present automation program has not contemplated the capturing of the additional information detailed in your letter. This program has been in the works for several years and is at a stage which would make it extremely expensive to try and make changes that would provide for obtaining this information ... We have focused on their attention on providing a more comprehensive ticker quotation and last sale information program not only because we felt that this was the primary concern to the investing public but because of the expense and operational and technical problems involved in developing a system that would read capture and information called for. However we have an open mind concerning the development issue of systems for the future."

The exchange requested a meeting be held early in January, 1964 where they could further explain its position at that meeting the exchange repeated his position on the excess of costs and further stated that doesn't problem in procuring any additional equipment due to the shortage of space on the exchange floor of great importance was the problem of collecting the data without appreciably slowing down the market. It was pointed out the major problem in the collection of those data was the specialist in the manner in which he operated. Among other things the present past design not allow for the retention and rapid location of cards, premarked with the data or agency orders to be executed by the specialist. It was also stated that the floor brokers would be slowed down causing not only a potential loss in their income but poorer execution of their customers trades. The Exchange staff said that the inclusion of our requirements into this system would delay the operation from December, 1964 to sometime in 1966.

Since the transactions a floor traders represented a very small percentage of the total trades and no public customers would be harmed by slowing down their activities, the Exchange said they would be willing to automate its collection of data on their transactions. This could also serve as a proving ground for any complete system to be developed.

In February, 1964, after a meeting with Chairman Cary, Mr. Funston wrote Mr. Cary reiterating his earlier statement that the exchange's automation program was based on a building block approach and would take many years to fully effectuate. The staff again met with a staff of the exchange. At that time the

exchange staff thought it might be possible to initiate work on a more comprehensive system, possibly in May, 1965 after the market sense card was tried and tested.

In response to this and Mr. Funston's letter, Mr. Carey wrote to him and its Chairman of the Board of Governors, Henry M. Watts, expressing his dissatisfaction with the impasse in negotiations in recommending the following steps:

- 1. The exchange should adopt an official position with respect to the use of modern automated procedures to discharge his statutory responsibilities ... it remains of the Board of Governors to state and announce its policy in this area.
- 2. The exchange should authorize the measures needed for solving problems of floor procedure, systems design, and computer programming number...
- 3. There is urgent and increasing need for the exchange to establish these objectives as part of a long range plan for use of its EDP equipment.

Mr. Funston in his reply again stated that the Exchange could do nothing on collecting data for surveillance until the basic system proved feasible. He further stated that the problem would be discussed at the April, 1964 Board of Governors meeting. At that meeting the Board agreed that the major emphasis must be placed on getting the first part of the system operable. They did agree to employ to additional people to study the problems of input of additional data. The first area to be studied would be that of registered trader surveillance.

In a subsequent letter that Mr. Funston and in meetings with the Director of the Office of Policy Research, it was agreed that the exchange would take reasonable measures to study the input and other problems necessary for achievement of automated surveillance and that it would phase in such surveillance on a post by post basis as promptly as it was reasonably possible.

In December of 1965, we again asked the status of the market data system which was designed to recover information concerning executions on the floor of the exchange. At that time we were told that there had been unforeseen delays in implementing the market data system but that we would be advised as to these status of your program. At that time it was indicated that although new methods of importing data into the processing equipment took time to perfect, the information reflecting the identity of the parties to the trade, buying the specialists, registered trader, member firm, public customer, whether each was a buyer or seller, would be available prior to the time that the Exchange would move into facilities which at that time was estimated to be in 1969 or 1970. Throughout our discussions it was understood that as a first step in providing this information the identity of registered floor traders would be designated since they were the smallest category reported persons in terms of the volume of business

done. They were to provide the vehicle for a pilot study to determine the feasibility of the entire system.

We understand now, based on our meeting in May, 1966, that there have been substantial input problems concerning the register floor trader; that these problems would be compounded if member firms, as well as specialists and others, were required to input data which will properly identify them and that, further the available "core" in your current computer system is not sufficient to report such information were the input problems resolved. We were informed that the reason for this was because of the status of programming, which had to be written to assure that the ticker was being driven properly without undue "downtime". In this connection we were advised that driving the ticker was the major thrust of the Exchange's program and that the information requested and the Commission's communication was not used as the guidelines for developing the Exchange's program.

We reaffirm again the importance of obtaining the requested information. We do not believe that the Exchange, without obtaining such information, can fulfill its self regulatory responsibilities particularly during markets of the type we have recently experienced. While we cannot at this time conclude that the Exchange's present approach will not produce the information requested, we must stress that we have emphasized since 1963 our interest in the Exchange developing a system which would produce the requested information. We, of course, need to your expertise and judgment whether the programs which were commenced at or about that time, and substantially refined since then, can produce such information. However, since the current situation indicates substantial problems in obtaining the information requested, we need specific responses to each of the following items:

- 1. The status of the development of a procedure to obtain the requested information.
- 2. The problems, if any, in proceeding further.
- 3. Plans in the future to obtain such information.
- 4. Proposed time schedule with respect to further implementing such program.

An our meeting of May 17, 1966, we also informed you that your current facilities for the execution of our odd lots contemplate that there would be twelve transmission lines available for firms who wish to execute odd lots. Will you please advise whether the last sale of information which we understand to be necessary for the execution of odd lots can be made available to more than twelve firms if necessary, and if not, whether the Exchange contemplates that such information would be available through parallel or expanded facilities if

requests for such information were made by Exchange members for the execution odd lots.

Finally, we solicit the views of the Exchange concerning the feasibility of avoiding duplication of equipment and other facilities between the New York Stock Exchange and other Exchanges, or, at least ensuring that the systems developed by other exchanges and then NYSE are compatible.

We want to thank you and your associates for the automation presentation and discussion on May 17, and we look forward to receiving your further views, comments and suggestions.

We appreciate very much your cooperation.

Sincerely yours,

Irving M. Pollack Director