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VIA HAND DELIVERY

Jonathan G. Katz, Secretary
Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549

Re: Proposed Rule Change and Amendment No. 1 by the Chicago Board Options Exchange, Inc. Governing the Operation of Its Retail Automatic Execution System, File No. 99-57

Dear Mr. Katz:

Interactive Brokers ("IB"), on behalf of itself and its parent company, The Timber Hill Group[1], respectfully submits these comments on the proposed rule change submitted by the Chicago Board Options Exchange ("CBOE") -- and provisionally approved by the Commission

[1] The Timber Hill Group includes Timber Hill LLC, Interactive Brokers LLC and other affiliates which, through the use of proprietary communications technology, trade standardized derivative investment products on organized securities and futures exchanges worldwide. Timber Hill LLC is registered with the Commission as a broker-dealer and is a member in good standing of the Chicago Board Options Exchange, American Stock Exchange, National Association of Securities Dealers, Philadelphia Stock Exchange and Pacific Exchange. Interactive Brokers LLC, also a registered broker-dealer, engages exclusively in agency trading. It is a member in good standing of the Chicago Board Options Exchange, American Stock Exchange and Philadelphia Stock Exchange, where it offers execution of customer orders in all option classes.

pending public comment -- -- that would allow CBOE floor procedure committees to deny automatic execution of public customer orders, even where CBOE is at the national best bid or offer ("NBBO"), simply because another market locks or crosses the CBOE.[2] We strongly urge the Commission to disapprove the proposed rule.

We also urge the Commission to initiate rulemaking to disapprove a similar rule of the Pacific Exchange ("PCX") that can no longer be justified. See PCX Rule 6.87 (h)-(j)(allowing suspension of PCX automatic execution when NBBO is crossed or locked). Whatever rationale the PCX rule may have had when it was adopted, it has become outmoded and now poses the same threat to best execution of customer orders as posed by the proposed CBOE rule.[3]

I. Approval of this Rule Would Penalize Customers of Broker-Dealers that Are Implementing Linked, Best Execution Order Routing Pursuant to SEC Guidelines.

The best hope for an efficient, linked national options market is the continued development and deployment of broker-dealer technology that intelligently routes customer orders for best-price automatic execution among multiple, vigorously competing markets. These broker-dealer systems, however, rely on firm quotes and the constant availability of automated exchange systems like RAES.

Interactive Brokers' order routing and execution system automatically routes buy orders to the exchange displaying the lowest offer and sell orders to the exchange displaying the highest

[2] Interactive Brokers and the Timber Hill Group are also filing comments today regarding another CBOE rule, File No. 99-61, which allows public customer orders to be rejected from RAES where the bid or offer for an option series generated by the CBOE Autoquote system becomes crossed or locked with the best bid or offer as established by a booked order. Our objection to that rule is based on many of the same grounds as our objection to the instant rule.

[3] If the Commission nonetheless determines to continue to tolerate these rules, as a condition therefor the exchanges at least should be required to post in electronic form accessible to broker-dealer order routing systems a notification that automatic execution is not available for a particular option series, so that broker-dealer routing systems can continue to function. Such notification should be electronically accessible at least three seconds prior to such option series being removed from the automatic execution system.

bid. This is what we understood to be the industry mandate given by Chairman Levitt in many recent pronouncements. We have built this system that seeks out the highest bids and lowest offers for each order and it is not surprising that our customers' orders happen to end up at the exchange that is posting the crossed market. If they did not, the system would not be working to provide best execution as intended by Chairman Levitt's mandate.

Interactive Brokers expended a great deal of effort in developing a system based on the availability of firm quotes and automatic execution of customer orders. This is what customer protection is all about and this should be the paramount guiding force. We have built technology that enables our customers on the Internet to interact, in real time, with the four options exchanges' automated execution systems. We have promised our customers fast, automatic execution of their orders at the best price. Yet when the exchanges' automatic execution systems are suspended -- as happens more and more often as more and more exemptions are adopted -- our customers' orders are taken off line (to a printer or broker) and our customers lose electronic control of those orders (i.e., their orders can no longer be modified or canceled online).

Firm quotes, best prices, and automated executions are the right concepts. Adopting rules that subvert them would be an enormous step backwards and would cause our customers and the investing public irreparable harm by denying them, now, the truly competitive options market they were so long denied because of the exchanges' failure to offer multiple listing.

The Commission has stated that "***as a general rule, automatic execution systems should remain operational at all times***,"[4] yet as noted the growing patchwork of exceptions to automatic execution on the options exchanges -- most recently exemplified in the CBOE rule discussed herein and another rule allowing RAES to be turned off where the bid or offer for a

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[4] See Exchange Act Release 34-38792, 64 S.E.C. Docket 2158 (June 30, 1997)(permanently approving automatic execution system of the Philadelphia Stock Exchange)(emphasis added).

series of options generated by CBOE's Autoquote system becomes crossed or locked with the best bid or offer for that series as established by a booked order[5] -- wreak havoc on firms like Interactive Brokers who use advanced order routing technology to send customer options orders to the best market expecting automatic executions.

Moreover, rules allowing kickouts to manual handling simply because prices differ across exchanges facilitate the fixing or coordination of prices. Thus, not only do customers lose fast, certain execution of their orders, they face wider spreads as well.[6]

As the Commission has recognized, the exchanges must take a step forward, not backward, and create a market framework that both preserves competition and allows market makers and broker-dealers to access each others' quotes across competing exchanges so that spreads are as narrow as possible and locked or crossed markets do not occur. We discuss below what the essential elements of such a framework might be. In the meantime, the Commission should soundly reject exchange rules such as this and others that disrupt best execution and are intended merely to protect possibly inadequate systems at the expense of public customers.

II. The CBOE Rule Allowing Rejection of Orders from RAES Because the NBBO is Crossed or Locked Should Be Disapproved.

A. Operation of the New Rule

Prior to the implementation of the new RAES policy, a public customer order would be executed automatically on RAES as long as the CBOE quote was at the best bid or offer

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[5] See Comments of Interactive Brokers/Timber Hill Group on Proposed Rule Change Relating to Non-Automatic Handling of RAES Orders, File No. 99-61 (Dec. 21, 1999).

[6] See In the Matter of National Association of Securities Dealers, 62 S.E.C. Docket 1346 (Aug. 8, 1996)(Commission enforcement action against Nasdaq market makers for illegally "coordinating price quotations and transactions … and failing… to transact at posted prices").

nationally -- regardless of whether prices on other exchanges locked or crossed the CBOE market. For example, if the CBOE market for a particular option was 4 ¾ bid - 4 7/8 offered, and the American Stock Exchange ("Amex") market was 5 – 5 1/8, a customer market order or marketable limit order to buy on CBOE would have been executed automatically at 4 7/8. The public customer was not denied the opportunity to buy the option on CBOE at 4 7/8 merely because another market was bidding 5 for the same option.

The new rule prevents customers attempting to buy the option from using automatic execution. Instead, the order is rerouted for manual handling and the market maker can withdraw its firm quote and "readjust" its market to avoid a loss or to capture for itself the benefit of any price discrepancy. The customer is disadvantaged because, as the Commission has noted, "when a RAES order is kicked out to the crowd" for manual execution "it may become subject to market risk."[7]

Broker-dealers are given no warning when they transmit RAES-eligible electronic orders that such orders will not, in fact, be executed on RAES. Under the CBOE rule and the similar rule on the PCX, once a customer order has been routed to an exchange that has actually turned off automatic execution, that order is sent to the floor and cannot be canceled and retransmitted to an exchange offering a true best-price execution. Indeed, as many as forty percent of the calls to the Interactive Brokers Help Desk in recent weeks have been from customers inquiring about their "auto-ex" eligible orders that were routed to the exchange showing the best national price and then were executed at less favorable prices or not at all because those orders had been kicked out to the crowd for manual handling.

[7] Exchange Act Release 34-41995, 64 Fed. Reg. 56547, 48 (Oct. 20, 1999).

B. The Proposed Rule Is Economically Unsound and Facilitates Price Fixing.

The only rationale provided by CBOE for allowing its market makers to disavow their firm quotes and shut off RAES is that locked or crossed quotes across exchanges are the result of "inaccurate prices" on one exchange caused by "communications or systems problems, or due to keystroke errors, or quotation dissemination delays."[8] This reasoning is seriously flawed, and if accepted would eliminate competition in option pricing.

Differing prices across market centers is an inherent characteristic of free, competing markets. On the options exchanges, differing prices can be caused by, among other things: 1) a market maker on one exchange having a different view regarding the volatility of the underlying security; 2) a market maker choosing to offer a more aggressive price to increase its volume; 3) market makers wanting to accumulate or liquidate certain positions; 4) a customer placing a limit order that becomes the best bid or offer on the exchange; or 5) an administrative or systems error. In our experience, the latter is the least likely explanation for a locked or crossed NBBO. In fact, in the absence of meaningful cross-exchange access and with the advent of new venues for options trading like the International Securities Exchange ("ISE") and the joint venture between Goldman Sachs and the Chicago Stock Exchange, the NBBO will become locked or crossed even more easily, and it will not be the result of administrative error.

If the NBBO is locked or crossed because different market makers simultaneously have different views on price, those market makers should trade at their posted prices and the market should adjust through transactions that rationalize the prices across different exchanges. If a market maker at CBOE choosing to use a different volatility parameter in its pricing algorithm or

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[8] Exchange Act Release 34-42167, 62 Fed. Reg. 66954, 55 (Nov. 30, 1999).

choosing to make a more aggressive market is offering at 4 7/8, and a market maker at Amex at the same time thinks such option is worth 5, neither is "right" or "wrong". The disparity should be eliminated by bona fide transactions that will redistribute the securities and cause the equilibrium price to be discovered. The disparity absolutely should not be eliminated by shutting down electronic execution of customer orders and allowing the market makers on the two exchanges to "coordinate" their prices so as to maintain a wider spread.

The rule locks the public customer out of the price discovery process and gives market makers the option to decline to honor their quotes, depending on whether market makers on other exchanges seem to agree with the CBOE market makers' prices. The price that the national market system pays for this option that is being afforded to the market makers is that all public customers pay wider spreads and are denied the efficiencies of firm quotes and fast, automatic execution.

C. The New Rule Eliminates Market Makers' Incentive to Improve their Systems.

Even to the extent that any price disparities do result from system errors or communication glitches, protecting market makers from the consequences of these problems removes any incentive they have to fix them. CBOE Rules impose an affirmative obligation on Designated Primary Market Makers to "assure that disseminated market quotations are accurate" and to maintain adequate systems and staff to that end. CBOE Rule 8.80(c). CBOE has provided no explanation why public customers and the national market system as a whole should be disadvantaged for market makers' failure to honor this obligation.

Because of the competitive advantages historically enjoyed by exchange middlemen, they have long resisted technological developments that more efficiently link buyers and sellers. The answer to this problem is not to continue artificially to preserve

competitive disparities by, for example, letting market makers turn off automatic execution and walk away from their published prices because their pricing may have been "incorrect." This solution reduces the efficiency of the markets and burdens all public customers. By far the most effective way to encourage the elimination of pricing "errors" – if that is what they truly are – is to hold market makers to firm quote rules.[9]

D. The New Rule Makes it Impossible to Determine Whether to Route an Order to CBOE.

The new rule acts as a disincentive to broker-dealers to develop or deploy best execution order routing systems that access the CBOE market. As noted, such broker-dealer systems rely on certainty of execution once an order is transmitted, and under the new rule, broker-dealers are given no warning when they transmit RAES-eligible electronic orders that such orders will not, in fact, be executed on RAES. Further, once a RAES-eligible customer order has been rerouted to a printer or broker on the CBOE floor, an automated broker-dealer routing system has no way of canceling the order in real time and retransmitting it to an exchange offering a true best-price automatic execution.

This is all made worse by the fact that the rule does not even describe with certainty what will happen to a RAES order when the NBBO is crossed. Under the rule, for each option class CBOE floor procedure committees have complete discretion "depending on the circumstances" to have orders rerouted:

- when the market is crossed or locked;
- "only when the NBBO is crossed but not locked;"

[9] This seems to be the Commission's approach with respect to exchange "trade or fade" rules, which historically have allowed market makers under certain conditions to decline to trade at published prices with broker-dealer counterparties. In its October 19, 1999 order requiring the options exchanges to propose a linkage plan, the Commission noted that any such plan should "repeal [] existing trade or fade rules that become unnecessary with the adoption of trade-through rules." Order Directing Options Exchanges To Submit an Inter-Market Linkage Plan, Exchange Act Release No. 34-42029, 64 Fed. Reg. 57674-01 (Oct. 26, 1999).

- only when the CBOE's market becomes crossed or locked as a result of the step-up amount having been applied" or
- not at all.

This uncertainty makes best execution order routing impossible.

E. If a Customer or Market Maker on Another Exchange Posts a Bid or Offer that Would Cross or Lock the NBBO because of a CBOE Customer Order, the Customer or Market Maker on the Away Exchange Should Execute Against the CBOE Customer Order.

Although the CBOE did not address the issue in its rule proposal, PCX sought to justify its similar rule allowing kickout from auto-ex where the NBBO is crossed or locked on the grounds that kickout was necessary if a customer order, rather than a market maker or broker-dealer order, was the booked order that was crossed or locked with an away market (e.g., if a customer order to pay $5 constituted the best bid on the PCX book, but the Amex market was quoted at 4 ¾ bid - 4 7/8 offered). In such situations, PCX argued, it would be unfair to the PCX customer to allow the order to be automatically executed at $5 against an incoming sell order from another customer, since Amex was offering at 4 7/8.

This rationale is dubious. First, kicking both customer orders out of the system and into the crowd for manual handling would likely result in a market maker or broker-dealer either taking out the Amex offer at 4 7/8 and then selling to the PCX customer at $5 (no better than an automatic execution would have been) or a market maker or broker-dealer trying to take the Amex offer and the Amex market maker fading its quote to $5 (also no better).

In any event, there are several better solutions to the problem. First, a broker-dealer using intelligent order routing technology should see when an away market touches or crosses a booked order of its customer and should cancel that order and reroute it to the other market for

execution. Failing that, if exchanges were open to each other's quotes, a market maker on the away market could access the booked order directly and execute against it, rather than posting a crossing price on its market. This is the solution offered by the Nasdaq market in its new proposal to enhance the national market system for Nasdaq stocks and to implement its new Order Collector Facility. See Exchange Act Release 34-42166, 1999 Westlaw 1080624 (Nov. 22, 1999). Under that proposal, whenever a Nasdaq market maker posts a quote that would lock or cross the national Nasdaq market, that quote would be treated as a marketable limit order and would be executed in time priority against the market maker displaying the best bid or offer. Id. As Nasdaq has recognized, increased automatic execution of orders is a far better solution to issues arising from fast-moving markets than creating more and more exceptions to automatic execution.

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In sum, the CBOE and PCX rules allowing automatic execution of customer orders to be suspended simply because the NBBO is crossed or locked are unjustified and should be disapproved. If the Commission nonetheless determines to continue to tolerate these rules, as a condition therefor the exchanges at least should be required to post in electronic form, accessible to broker-dealer routing systems, a notification that automatic execution is not available for a particular option series– so that broker-dealer best execution routing systems can continue to function. Such notification should be electronically accessible at least three seconds prior to such option series being removed from the automatic execution system.

As noted, because of the virtually unlimited discretion given to floor procedures committees where markets are crossed locked, broker-dealers now have no way to determine what the status of automatic execution for any particular option series will be if the NBBO for that series becomes locked or crossed.

III. Essential Elements of a Truly Competitive National Options Market

The Commission is at a crucial point in rulemaking. The automatic execution rules discussed in our comment letters filed today, the pending rules of the International Securities Exchange, and the rules proposed by the options exchanges in the context of their linkage proposals, will all have a profound effect on what the electronic options market of the future will look like and whether true competition and increased customer access to the markets will be realized. The judgments made by the Commission in facing these issues in the options markets may also serve as a precedent for the stock market, where there is also a proliferation of increasingly electronic trading venues.

In dealing particularly with "linkage" issues, the Commission should regard with suspicion any exchange linkage plan that would foster *de facto* price fixing across exchanges and create what essentially would be a new regulated monopoly. Namely, one in which all exchanges would display some price with an artificially wide spread while providing a guarantee to fill orders by stepping up to the NBBO. The highly profitable order flow therefrom would be allocated based on direct or veiled payment for order flow, exchange membership categories, or other allocation schemes, rather than member willingness to attract order flow with better prices.

In the interest of a fair and efficient market, the Commission instead should encourage the continued formation of different, vigorously competing market centers, and make sure that the rules of such market centers do not prevent matching orders – whether from customers, market makers or other broker-dealers -- from trading against each other regardless of origin. These competing markets would be linked in two ways. First, pursuant to their duty of best execution, broker-dealers would route each customer order to the best market based on the price displayed at that market. Second, trade-throughs and crossed and locked markets would not persist because markets would be open to each others' quotes and would use electronic links to trade with each other to eliminate disparities in pricing.

We think that it would be inadvisable on a number of levels to place the primary responsibility for order routing with the exchanges. As noted, such a step would tend to create a functionally single market resistant to change, whereas different market centers operating in parallel would provide more competition and innovation. In addition, multiple broker-dealer routing systems will also provide far more routing capacity and redundancy than a monolithic exchange system, and will be less susceptible to system failures. Finally, there is a danger that through their linkage, existing exchanges could erect barriers to potential new participants.

As we show below, the competitive national options market of the future should be based on three essential elements that will create powerful incentives for increased liquidity, price competition, and best execution of customer orders:

1. **Orders Must Be Routed to Exchanges that <u>Display</u> the Best Price;**
2. ***<u>Within</u>* Each Market Center, Price/Time Priority Must Be Maintained; and**
3. **All Quotes or Guarantees to Trade Must Be Posted as Firm, Executable Orders Accessible to All Market Participants.**

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A. <u>Orders Must Be Routed to Exchanges that Display the Best Price.</u>

Broker-dealers should use best execution systems to route customer orders to the best posted market, and an exchange should not be permitted to step-up to a better price if it was not posting that price when it received a customer order. Some options exchanges support a model under which -- regardless of the posted price on the exchange -- customer orders will be guaranteed to trade at the NBBO because the exchange will have an opportunity to "step-up" to NBBO <u>after</u> it receives a customer order. These exchanges argue that by stepping-up their quotes to guarantee the NBBO once they have an order in hand, they are providing price improvement and guaranteeing best execution. In fact, what they are guaranteeing is that no market center will have any incentive to narrow the spread because that will not increase its

market share as against other market centers (since those market centers will be pre-committed to match the same price). Other exchanges or new entrants will have no incentive to compete with their more established competitors by posting more aggressive prices, since the established exchanges will have a Commission-sanctioned right simply to step-up and match their price. Broker-dealers will be free to send their order flow to the exchange or market maker that is able to offer the wealthiest incentives, since "best execution" at NBBO is guaranteed.

This is a frightening scenario: If exchanges can post uncompetitive markets but simply guarantee to step up to NBBO ***after*** receiving orders, market share will not be determined by price competition but by direct or indirect payment for order flow. Ultimately, the result will be fewer competitors and wider markets and the benefits of multiple listing will disappear.[10]

There is a far better model for competition, however, and it is very simple. Rather than accepting payment for order flow or other troublesome incentives, broker-dealers should abide by their duty of best execution and route orders to the market showing the best price. As recently noted by Chairman Levitt, "systems for broker-dealers recently have emerged that include sophisticated algorithms for automatically routing investor orders in a security to the best market."[11] Broker-dealers should use these systems or, less ideally, manually route each order to the market displaying the best price. This will provide a powerful incentive for an exchange to narrow the spread and be at the best price before a broker-dealer makes its routing decision (so that the exchange gets the order). If an exchange is not at the best price but a broker-dealer

[10] This is why guarantees among exchanges to trade at a single national price would constitute a violation of the antitrust laws absent Commission approval immunizing them from liability. See e.g., Falls City Industries, Inc. v. Vanco Beverage, Inc., 460 U.S. 428, 441 (1983) (citing FTC v. A.E. Staley MFG Co., 324 U.S. 746 (1945) (setting prices according to a single scheme by its nature precludes independent pricing in response to normal competitive forces and is therefore illegal)).

[11] Hearing Before the Senate Subcomm. on Securities, Comm. on Banking, Housing, And Urban Affairs Concerning Market Structure Issues Currently Facing the Commission (Oct. 27, 1999)(statement of Chairman Arthur Levitt).

nonetheless sends it an order (e.g, because of error or because the broker-dealer does not have systems sufficient to route each order to the best market), that exchange should be required immediately and automatically to send the order to the away market displaying the best price. The exchange thus would have no opportunity to step-up and benefit from execution of an order if it did not post the best price before that order was received.

B. ***Within*** Each Market Center, Price/Time Priority Must Be Maintained.

Closely related to the foregoing, orders should be allocated to market makers within each exchange on a strict time/priority basis. The first member to post a better price should be rewarded with an execution. This should ensure intra-exchange price competition and result in narrowing the NBBO, which other exchanges will also have to display to compete for order flow in accordance with our point above. Exchange rules for preferential allocation of trades on grounds other than best price (e.g., because of special membership status) reduce any incentive market makers have to post narrower markets and have no place in the options markets of the future.[12]

If the Commission nonetheless determines that it is appropriate for exchanges to provide specialists or designated primary market makers with a guaranteed reward, other than lower exchange transaction fees, for making markets, such specialists or designated primary market makers may be given a fixed percentage of all orders. In order to retain the critical incentive for

[12] Technological advances have made quote attribution possible. The majority of exchange market makers now maintain what was once the exception, real-time theoretical values, on handheld computers. When connected to exchange systems, these real-time quotes provide the basis for quote attribution and thus, enhanced competition. RAES allocation based on quoting rather than entitlement would assure the best possible markets. Moreover, such competitive intra-market quoting will speed the retirement of the exchanges' current consensual autoquote systems, which are by definition anticompetitive.

other members to post better prices, however, this percentage should be low, and in no event should it be 100% of small orders.[13]

C. All Quotes or Guarantees to Trade Must Be Posted as Firm, Automatically Executable Orders Accessible to All Market Participants.

With the advent of electronic exchanges, rules governing the trading process are translated into computer programs. Trading rules become crystal clear, no longer subject to interpretation and difficult to change. In a computer program, firm markets or guarantees to trade at the NBBO are functionally equivalent to orders with a stated size. In the interests of efficiency and transparency, such guarantees therefore should be displayed as firm, automatically executable orders.

Electronic order books should be accessible to customers and broker-dealers alike. Barring broker-dealers from accessing electronic order books on a proprietary basis reduces liquidity and competition and harms the price discovery process. First, if broker-dealers are excluded from entering orders that could better posted markets, public customers are denied the potential for true price improvement and narrower markets. Second, the exclusion of broker-dealers from accessing market centers enables participating market makers to tilt their quote away from the direction of public demand and take advantage of relative price insensitivity on the part of the public. Lastly, if broker-dealers may not access market centers that have drawn away liquidity, they may have difficulty hedging or liquidating positions. As a result they may withdraw from the business, further reducing liquidity.

In short, markets are most efficient and liquid when all quotes are firm, posted publicly, and openly accessible to everyone on an equal basis. Allowing a hodgepodge of exceptions to this principle to persist into the future is not consistent with the Commission's vision for the national options market.

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[13] C.f. Proposed ISE Rules.

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The three essential elements discussed above, operating together, will result in a marketplace that will have all the practical advantages of a centralized order book without any of its limitations. It will ensure vigorous price competition along with all the benefits of parallel processing.

Conclusion

Broker-dealer best execution systems that route orders to exchange automatic execution systems are the best way to ensure -- today -- that exchanges compete and that customers get the best price across markets. Public customers should be able to rely on the ability to execute trades automatically at firm posted prices. And in the context both of specific rules like the rules discussed herein, and the exchange linkage plans that will be presented shortly, we urge the Commission to focus on protecting the interests of the customer. The Commission should resist any rule or plan that reduces competition, places the interests of exchanges or their constituents above the interest of customers, or seeks to deny customers the dramatic benefits of rapidly advancing technology.

David M. Battan
Vice President and General Counsel

cc: Hon. Arthur Levitt
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