NYSE CHICAGO, INC.

In the Matter of: Jump Trading, LLC (CRD No. 106124) Respondent.	Proceeding No. 2018-11-00017

ORDER INSTITUTING PROCEEDINGS, ACCEPTING SETTLEMENT, MAKING FINDINGS, AND IMPOSING SANCTIONS

I.

NYSE Chicago, Inc. ("NYSE Chicago" or the "Exchange"), pursuant to Article 12, Rule 1(d) of the Rules of the Exchange, in lieu of filing charges, hereby enters this Order against the Respondent Jump Trading, LLC ("Jump," "Respondent," or the "Firm") instituting proceedings, accepting an Offer of Settlement, making findings, and imposing sanctions.

II.

In anticipation of the institution of these proceedings, the Respondent has submitted an Offer of Settlement ("Offer") to NYSE Chicago, which NYSE Chicago has determined to accept. This Order accepting the Offer of the Respondent, together with the Offer in and of itself, hereby constitutes the "Settlement Agreement." Respondent, without admitting or denying the findings herein, except as to the Exchange's jurisdiction over the Firm and over the subject matter of these proceedings, which is admitted solely for the purposes of this proceeding or any other proceeding brought by or on behalf of the Exchange, or to which the Exchange is a party, prior to a hearing and without adjudication of any issue of law or fact, consents to the entry of this Order Instituting Proceedings, accepting an Offer of Settlement, Making Findings, and Imposing Sanctions (the "Order").

III.

Jump is a registered broker-dealer with its principal office located in Chicago, Illinois. Jump became a Participant of NYSE Chicago on December 22, 2000. Jump is subject to the disciplinary jurisdiction of NYSE Chicago pursuant to Article 12, Rule 7(a) of the Rules of the Exchange.

This matter arose from an investigation conducted by NYSE Chicago's Member Regulation Division, following a self-reported net capital violation by the Firm on May 4, 2018.

IV.

FACTS

Jump engages in algorithmic trading of a variety of asset classes on numerous securities venues. The Firm trades solely in a proprietary capacity.

One of Jump's trading teams ("Team A") employs a number of algorithmic trading strategies, which operate over the course of the trading day. Shortly before the close of trading, the positions accumulated by these strategies are aggregated in a different algorithmic trading strategy ("Algo 1"), which was designed to net out the accumulated positions to achieve desired target positions, and exit any remaining positions, generally by sending limit-on-close orders to participate in closing auctions across various U.S. equities markets. Algo 1 was designed to have an end-of-day position near zero, though depending on the execution percentage of the orders it placed, it might carry a small position (typically in the low five figures) overnight.

On May 3, 2018, the Team Lead for Team A made an edit to the code of Algo 1 that was intended to improve its execution percentage, and thus more effectively liquidate certain positions it did not intend to carry overnight. The Team Lead ran the revised code for Algo 1 through Team A's historical regression test suite. After the test did not reveal any issues with the new code, the Team Lead placed the revised code for Algo 1 in production on May 4, 2018. However, the revised code contained an error, which, under certain circumstances, would cause the strategy to malfunction, and significantly increase the size of Team A's positions, rather than reducing them as intended. This error did not become apparent during testing, as Team A's historical regression test suite, in conjunction with Jump's trading platform, did not accurately simulate the conditions that would cause the modified algorithm to malfunction.

Toward the end of the trading day on May 4, 2018, Team A's algorithms transferred their positions to Algo 1, but in many cases, because of the error contained in the revised code, Algo 1 placed orders that greatly increased the size of the team's positions. Rather than reducing Team A's positions to near zero, Algo 1 instead accumulated significant short positions resulting from 674 unintended executions, totaling hundreds of millions of dollars. These positions caused Jump to fall out of compliance with applicable net capital requirements. The Firm immediately began discussions with its clearing broker to exit the positions accumulated by Algo 1. Later that same day, the Firm executed a block trade with its clearing broker, bringing the Firm back into net capital compliance.

As a proprietary trading firm with market access, Jump was required to implement a system of risk management controls and supervisory procedures reasonably designed to prevent the entry of certain types of erroneous orders, as well as orders that would exceed appropriate pre-set capital thresholds. While Jump did have multiple risk management controls in place, they were not reasonably designed to address the risks of the Firm's trading, including blocking limit-on-close orders that caused Jump to fall out of compliance with applicable net capital requirements. Deficiencies in two of Jump's risk controls in particular contributed to the events of May 4, 2018.

First, while Team A had implemented controls limiting the size of its orders to 200,000 shares and $40 million gross notional value, the control did not block erroneous orders such as those generated

by Algo 1, and instead, only reduced the size of the orders so that they no longer exceeded the limit. The result of this deficiency was that, on May 4, 2018, Algo 1 was able to place orders in numerous securities that equaled the risk system's maximum allowable order size, instead of completely preventing those original, larger-sized orders from being transmitted to the market.

Second, though the Firm implemented a control that limited the gross notional value of the positions that Team A could accumulate, that limit was based only on executed orders, and failed to take into account orders that had been placed, but had not yet executed. As Algo 1 was designed to liquidate Team A's positions largely through the use of limit-on-close orders, which do not execute until the close of trading when they can no longer be cancelled, by the time this capital limit was exceeded, it was too late to prevent the majority of the erroneous orders from executing. As designed, the Firm's capital limits were ineffective to prevent the entry of limit-on-close orders that could cause the Firm to fall out of compliance with applicable net capital requirements.

V.

LEGAL ANALYSIS

A. Applicable Rules

Rule 15c3-5 of the Securities Exchange Act of 1934 (the "Exchange Act") requires that a broker or dealer with market access "shall establish, document, and maintain a system of risk management controls and supervisory procedures reasonably designed to manage the financial, regulatory, and other risks of this business activity." Rule 15c3-5(b). "The risk management controls and supervisory procedures shall be reasonably designed to systematically limit the financial exposure of the broker or dealer that could arise as a result of market access, including being reasonably designed to: (i) Prevent the entry of orders that exceed appropriate pre-set credit or capital thresholds in the aggregate for . . . the broker or dealer and, where appropriate, more finely-tuned by sector, security, or otherwise by rejecting orders if such orders would exceed the applicable credit or capital thresholds; and (ii) Prevent the entry of erroneous orders, by rejecting orders that exceed appropriate price or size parameters, on an order-by-order basis or over a short period of time, or that indicate duplicative orders." Rule 15c3-5(c)(1).

Exchange Act Rule 15c3-1 provides that "[e]very broker or dealer must at all times have and maintain net capital no less than" that required pursuant to that rule. NYSE Chicago Article 7, Rule 3(a)(1)(A) further requires that "a Participant shall at all times maintain net capital not less than that prescribed by SEC 15c3-1."

Finally, NYSE Chicago Article 6, Rule 5 provides that "[e]ach Participant Firm shall establish, maintain and enforce written procedures to supervise the types of business in which it engages and to supervise the activities of registered and associated persons. Such written procedures must be reasonably designed to achieve compliance with applicable securities laws and regulations, and with the applicable rules of the Exchange."

B. Unreasonable Risk Management Controls: Rule 15c3-5 and NYSE Chicago Article 6, Rule 5

As discussed above, while the Firm implemented pre-set capital thresholds and risk management controls intended to reduce the risk of erroneous orders, those controls were not reasonably

designed to address the risks presented by Jump's business. Specifically, Jump's capital limits were unreasonable, as they only took into account executed orders, and failed to take into account orders that had been placed but had not yet executed, including limit-on-close orders sent to the market prior to the close of trading. Further, given Jump's unreasonable credit limits, Team A's pre-trade single-order controls were unreasonable, as they only acted to reduce the size of erroneous orders to the maximum allowable size, rather than blocking them in their entirety.

As a result of these deficiencies, on May 4, 2018, Algo 1, which was designed to reduce Team A's positions, instead accumulated large positions that caused the Firm to fall out of compliance with applicable net capital requirements.

In addition, the Firm generally failed to sufficiently document how it determined its market access controls. And while the Firm did have a process by which capital usage limits were set, it was unable to provide specific documentation demonstrating how it set those capital limits at the Firm or group level.

Thus, for the aforementioned reasons, the Firm violated Exchange Act Rules 15c3-5(b) and 15c3-5(c)(1), and NYSE Chicago Article 6, Rule 5.

C. Net Capital Violation: Rule 15c3-1 and NYSE Chicago Article 7, Rule 3(a)(1)(A)

As a result of Algo 1's malfunction, the Firm's net capital fell below the required levels. Therefore, for several hours on May 4, 2018, the Firm failed to maintain the net capital required by, and was in violation of, Exchange Act Rule 15c3-1 and NYSE Chicago Article 7, Rule 3(a)(1)(A).

VI.

RELEVANT DISCIPLINARY HISTORY

The Firm does not have any relevant disciplinary history.

VII.

SANCTION

In view of the foregoing, the Exchange deems it appropriate to censure and fine Jump two hundred and fifty thousand dollars ($250,000.00). Payment of this amount shall be due no later than the 15th day following the issuance of this Order. The Exchange also deems it appropriate to impose an undertaking on Jump, pursuant to which, within 90 days of the issuance of this Order, the Firm must certify that it has addressed the deficiencies in its risk management controls discussed above.

NYSE CHICAGO, INC.

By: Date: 9/12/19

Anthony J. Albanese
Chief Regulatory Officer