## THE NASDAQ STOCK MARKET LLC NOTICE OF ACCEPTANCE OF AWC

## Certified, Return Receipt Requested

TO: Citadel Securities LLC

Mr. Shawn Fagan

Senior Deputy General Counsel 131 South Dearborn Street

32nd Floor

Chicago, IL 60603

FROM: The NASDAQ Stock Market LLC ("Nasdaq")

c/o Financial Industry Regulatory Authority ("FINRA")

Department of Market Regulation

9509 Key West Avenue Rockville, MD 20850

DATE: October 19, 2016

RE: Notice of Acceptance of Letter of Acceptance, Waiver and Consent No. 20100235180-01

Please be advised that your above-referenced Letter of Acceptance, Waiver and Consent ("AWC") has been accepted on October 19, 2016 by the Nasdaq Review Council's Review Subcommittee, or by the Office of Disciplinary Affairs on behalf of the Nasdaq Review Council, pursuant to Nasdaq Rule 9216. A copy of the AWC is enclosed herewith.

You are again reminded of your obligation, if currently registered, immediately to update your Uniform Application for Broker-Dealer Registration ("Form BD") to reflect the conclusion of this disciplinary action. Additionally, you must also notify FINRA (or NASDAQ if you are not a member of FINRA) in writing of any change of address or other changes required to be made to your Form BD.

You are reminded that Section I of the attached Letter of Acceptance, Waiver, and Consent includes an undertaking. In accordance with the terms of the AWC, a registered principal of the firm is required to notify the Compliance Assistant, Legal Section, Market Regulation Department, 9509 Key West Avenue, Rockville, MD 20850, of completion of the undertaking.

You will be notified by the Registration and Disclosure Department regarding sanctions if a suspension has been imposed and by NASDAQ's Finance Department regarding the payment of any fine if a fine has been imposed.

# Citadel Securities LLC Page 2

If you have any questions concerning this matter, please contact Renee Barnett, Senior Counsel, at (240) 386-6107.

Robert A. Marchman

Executive Vice President, Legal Section Department of Market Regulation, FINRA

Signed on behalf of NASDAQ

Enclosure

FINRA District 8 – Chicago Edward Wegener Senior Vice President and Regional Director (Via email)

Paul R. Eckert Wilmer Cutler Pickering Hale and Dorr LLP 1875 Pennsylvania Avenue NW Washington, DC 20006

## THE NASDAQ STOCK MARKET LLC LETTER OF ACCEPTANCE, WAIVER AND CONSENT NO. <u>20/00235/8</u>0-0/

TO: The NASDAQ Stock Market LLC
c/o Department of Market Regulation
Financial Industry Regulatory Authority ("FINRA")

RE: Citadel Securities LLC, Respondent

Broker-Dealer CRD No. 116797

Pursuant to Rule 9216 of The NASDAQ Stock Market LLC ("Nasdaq") Code of Procedure, Citadel Securities LLC (the "firm" or "Citadel") submits this Letter of Acceptance, Waiver and Consent ("AWC") for the purpose of proposing a settlement of the alleged rule violations described below. This AWC is submitted on the condition that, if accepted, Nasdaq will not bring any future actions against the firm alleging violations based on the same factual findings described herein.

I.

#### ACCEPTANCE AND CONSENT

A. The firm hereby accepts and consents, without admitting or denying the findings, and solely for the purposes of this proceeding and any other proceeding brought by or on behalf of Nasdaq, or to which Nasdaq is a party, prior to a hearing and without an adjudication of any issue of law or fact, to the entry of the following findings by Nasdaq:

#### BACKGROUND

The firm has been a member of Nasdaq since July 12, 2006, and its registration remains in effect. The firm has no relevant disciplinary history.

#### SUMMARY

In connection with Review No. 20100235180, the Market Regulation Department (the "staff") reviewed certain firm proprietary algorithmic trading activity and related supervision during the period February 2008 through August 2012 (the "review period").

As a result of its review, the staff found violations of Nasdaq Rules 2110, 3010 and 3110 and SEC Rule 17a-4, as set forth below.

### **FACTS AND VIOLATIVE CONDUCT**

#### Nasdaq's Opening Cross Process

During the review period, Nasdaq operated two trading books before the market opened at 9:30 a.m.: (1) the Nasdaq "Continuous Book," which was open to market participants to place orders and execute trades during extended hours trading between 7:00 a.m. and 9:30 a.m., and (2) the Nasdaq "Opening Book," which accepted orders between 7:00 a.m. and 9:30 a.m. to be executed at the Nasdaq "Opening Cross" at 9:30 a.m.

## Citadel's Opening Cross Strategy

At the Opening Cross, orders in the Opening Book and orders in the Continuous Book are brought together to create a single Opening Cross price, which becomes Nasdaq's official opening price ("NOOP") for each such security. During the two minutes prior to the Opening Cross, Nasdaq permits market participants to submit imbalance-only, or "IO," orders in the Opening Book to provide liquidity to offset on-open orders during the Opening Cross. Beginning at 9:28 a.m., and at five-second intervals thereafter until 9:30 a.m., Nasdaq publicly disseminates certain data for securities that have an imbalance in the Opening Book – Net Order Imbalance Indicator ("NOII") data. This information includes the size of the imbalance, whether it is a buy or sell imbalance, and certain pricing indicators, including the price at which the security would open at that moment in time based on buy and sell orders in the Opening Book and in the Continuous Book.

In February 2008, the firm developed and implemented an algorithm for trading during the Nasdaq Opening Cross known as its Nasdaq Opening Imbalance Strategy (the "On-Open Strategy"). The associated person who developed the On-Open Strategy, who was not a registered person, and his immediate superior, who also was not a registered person at the time of the On-Open Strategy's development and implementation, designed the On-Open Strategy to select securities to trade based on its review of NOII data at 9:28 a.m. The strategy evolved during the review period, but generally operated as follows. For those securities selected, the On-Open Strategy would send an IO order to partially offset the imbalance published by Nasdaq and then immediately also send an Immediate or Cancel non-displayed active order to Nasdaq, in the Continuous Book, equal in volume to the size of the IO order placed with Nasdaq (but on the opposite side of the market). Depending on certain factors, this order was sent to execute exclusively on Nasdaq or was sent with instructions to route to additional exchanges for execution. If the order did not execute, or partially executed, then the On-Open Strategy may send a second active order.

If these two active orders did not achieve executions in a volume equal to the firm's IO order in the selected security, then the On-Open Strategy would enter a period where it placed passive orders<sup>2</sup> in the Nasdaq Continuous Book. After a period of time, if the passive orders did not execute, an additional active order was sent priced at the inside market (reaching across the

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An "active" order was placed at or greater than the ask, for a buy order, or at or less than the bid, for a sell order.

A "passive" order was placed at the bid for a buy or at the ask for a sell (i.e., at the inside) and was updated if the inside price changed.

spread).<sup>3</sup> This order, generally, was sent at about 9:29:59. The placement of passive orders was, generally, undertaken an additional time by the On-Open Strategy. Then, the On-Open Strategy would send additional active orders priced at the inside (reaching across the spread) at a volume equal to the remaining unexecuted volume of the initial active order. The final active order was generally sent at 9:29:59.500.

## The Impact of Citadel's On-Open Strategy

The associated person who developed the On-Open Strategy and his superior stated that its trading was designed to have minimal impact on the prices of the securities in which it traded. In certain instances, however, for the securities in which the On-Open Strategy was utilized, it traded a high concentration of the volume close to the open, which unduly impacted or had the potential to unduly impact the Continuous Book price of the security as well as the NOOP.

### Supervisory Deficiencies

The firm's supervision of the development, testing, implementation, and operation of the On-Open Strategy was deficient. No registered person at the firm was responsible for designing, testing, or approving the On-Open Strategy, including its trading parameters, or for approving revisions to the On-Open Strategy. In addition, the registered individual charged with supervising the trading of the On-Open Strategy after implementation did not have a detailed understating of the On-Open Strategy's trading parameters. The firm did not monitor, either on a security-by-security basis or by review of aggregate On-Open Strategy executions, the On-Open Strategy's potential impact on prices, including the NOOP. While the associated person who developed the On-Open Strategy and his superior stated that its trading was designed to have minimal impact on the prices of the securities in which it traded, the firm did not supervise the On-Open Strategy to ensure that it operated in accordance with this stated design. During the review period, the firm's supervisory system, including its written supervisory procedures, did not provide for adequate supervision to ensure that trading strategies were not designed to unduly or artificially impact market prices and that strategies' trading did not result in such undue or artificial market impact.

## Failure to Maintain Required Books and Records

From February 2008 through December 2009, the firm did not retain email messages and other communications created and received by the associated person who developed the On-Open Strategy because the firm did not designate him as an associated person for email archiving purposes during this time.

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<sup>&</sup>lt;sup>3</sup> Reaching across the spread means that a buy order was sent at the then-current inside offer price and a sell order was sent at the then-current inside bid price.

Based on the foregoing conduct, Citadel committed the following violations:

- 1. During the review period, as noted above, the firm's On-Open Strategy, in certain instances, traded a high concentration of volume close to the open, but without due care as to the impact of its trading on the NOOP. CEMM's conduct resulted in the firm's failure to meet standards of professional conduct. The conduct described in this paragraph constitutes a violation of Nasdaq Rule 2110.
- 2. During the review period, as noted above, the firm did not establish and maintain a reasonable system to supervise algorithmic trading strategies developed by the firm and utilized by the firm's Proprietary Trading Desk ("algo strategies"). In particular, the firm's supervisory system failed to reasonably supervise the development, testing, implementation, and operation of algo strategies as described above. The firm's supervisory system also failed to have adequate written supervisory procedures to govern the development, testing, implementation and operation of algo strategies. Specifically, the firm's supervisory system did not provide for: (1) the identification of the person(s) responsible for supervision; (2) a statement of the supervisory step(s) to be taken by the identified person(s); (3) a statement as to how often such person(s) should take such step(s); and (4) a statement as to how the completion of the step(s) included in the written supervisory procedures should be documented. The conduct described in this paragraph constitutes a violation of Nasdaq Rules 2110 and 3010.
- 3. From February 2008 through December 2009, the firm did not retain email messages and other communications created and received by an associated person, the quantitative researcher who developed the On-Open Strategy. The conduct described in this paragraph constitutes a violation of SEC Rule 17a-4 and Nasdaq Rule 3110.
- B. The firm also consents to the imposition of the following sanctions:

A censure, a fine of \$1,000,000 (\$475,000 for violations of just and equitable principles of trade, \$475,000 for supervision deficiencies, and \$50,000 for violations of books and records rules), and an undertaking to revise the firm's written supervisory procedures with respect to the areas described in paragraph 2 above. Within 30 business days of acceptance of this AWC by the NAC, a senior officer of the Respondent shall submit to the COMPLIANCE ASSISTANT, LEGAL SECTION, MARKET REGULATION DEPARTMENT, 9509 KEY WEST AVENUE, ROCKVILLE, MD 20850, a signed, dated letter, or an e-mail from a work-related account of the senior officer to <a href="MarketRegulationComp@finra.org">MarketRegulationComp@finra.org</a>, providing the following information: (1) a reference to this matter; (2) a representation that the firm has revised its written supervisory procedures to address the deficiencies described in this paragraph; and, (3) the date the revised procedures were implemented.

The firm agrees to pay the monetary sanction(s) in accordance with its executed Election of Payment Form.

The firm specifically and voluntarily waives any right to claim that it is unable to pay, now or at any time hereafter, the monetary sanction(s) imposed in this matter.

The sanctions imposed herein shall be effective on a date set by FINRA staff.

II.

#### WAIVER OF PROCEDURAL RIGHTS

The firm specifically and voluntarily waives the following rights granted under Nasdaq's Code of Procedure:

- A. To have a Formal Complaint issued specifying the allegations against the firm;
- B. To be notified of the Formal Complaint and have the opportunity to answer the allegations in writing;
- C. To defend against the allegations in a disciplinary hearing before a hearing panel, to have a written record of the hearing made and to have a written decision issued; and
- D. To appeal any such decision to the Nasdaq Review Council and then to the U.S. Securities and Exchange Commission and a U.S. Court of Appeals.

Further, the firm specifically and voluntarily waives any right to claim bias or prejudgment of the Chief Regulatory Officer, the Nasdaq Review Council, or any member of the Nasdaq Review Council, in connection with such person's or body's participation in discussions regarding the terms and conditions of this AWC, or other consideration of this AWC, including acceptance or rejection of this AWC.

The firm further specifically and voluntarily waives any right to claim that a person violated the ex parte prohibitions of Rule 9143 or the separation of functions prohibitions of Rule 9144, in connection with such person's or body's participation in discussions regarding the terms and conditions of this AWC, or other consideration of this AWC, including its acceptance or rejection.

III.

#### **OTHER MATTERS**

The firm understands that:

A. Submission of this AWC is voluntary and will not resolve this matter unless and until it has been reviewed and accepted by FINRA's Department of Market

- Regulation and the Nasdaq Review Council, the Review Subcommittee, or the Office of Disciplinary Affairs ("ODA"), pursuant to Nasdaq Rule 9216;
- B. If this AWC is not accepted, its submission will not be used as evidence to prove any of the allegations against the firm; and

## C. If accepted:

- 1. this AWC will become part of the firm's permanent disciplinary record and may be considered in any future actions brought by Nasdaq or any other regulator against the firm;
- 2. Nasdaq may release this AWC or make a public announcement concerning this agreement and the subject matter thereof in accordance with Nasdaq Rule 8310 and IM-8310-3; and
- 3. The firm may not take any action or make or permit to be made any public statement, including in regulatory filings or otherwise, denying, directly or indirectly, any finding in this AWC or create the impression that the AWC is without factual basis. The firm may not take any position in any proceeding brought by or on behalf of Nasdaq, or to which Nasdaq is a party, that is inconsistent with any part of this AWC. Nothing in this provision affects the firm's right to take legal or factual positions in litigation or other legal proceedings in which Nasdaq is not a party.
- D. The firm may attach a Corrective Action Statement to this AWC that is a statement of demonstrable corrective steps taken to prevent future misconduct. The firm understands that it may not deny the charges or make any statement that is inconsistent with the AWC in this Statement. This Statement does not constitute factual or legal findings by Nasdaq, nor does it reflect the views of Nasdaq or its staff.

The undersigned, on behalf of the firm, certifies that a person duly authorized to act on its behalf has read and understands all of the provisions of this AWC and has been given a full opportunity to ask questions about it; that it has agreed to the AWC's provisions voluntarily, and that no offer, threat, inducement, or promise of any kind, other than the terms set forth herein and the prospect of avoiding the issuance of a Complaint, has been made to induce the firm to submit it.

Citadel Securities LLC Respondent

Title: Sr. Deputy Jeneral Counsel

Reviewed by:

Counsel for Respondent

Firm Name Paul R. Eckert
Wilner Cuffer Pickering Hale as Davup

Accepted by Nasdaq:

10/19/16 Date

Robert A. Marchman

Executive Vice President Department of Market Regulation

Signed on behalf of Nasdaq, by delegated authority from the Director of ODA

#### **ELECTION OF PAYMENT FORM**

The firm intends to pay the fine proposed in the attached Letter of Acceptance, Waiver and Consent by the following method (check one):

A firm check or bank check for the full amount:

AD. Wire transfer;

The installment payment plan.4 

- o Monthly
- o Ouarterly

Respectfully submitted,

Respondent

Citadel Securities LLC

**Billing and Payment Contact** 

Please enter the billing contact information below. Nasdag MarketWatch will contact you with billing options and payment instructions. Please DO NOT submit payment until Nasdaq has sent you an invoice.

Billing Contact Name:

Billing Contact Address: 131 S. Dearborn St., Chicago, 16 60603

Billing Contact Email: MAN, MERSMAN & Citadel. com

Billing Contact Phone Number: 312-396-3169

<sup>&</sup>lt;sup>4</sup> The installment payment plan is only available for a fine of \$50,000 or more. Certain requirements apply.

This Corrective Action Statement is submitted by the Respondent, Citadel Securities LLC ("Citadel Securities"). It does not constitute factual or legal findings by FINRA, nor does it reflect the views of FINRA, or its staff.

## STATEMENT OF CORRECTIVE ACTION BY CITADEL SECURITIES LLC

Citadel Securities LLC submits this Statement of Corrective Action in connection with the foregoing Letter of Acceptance, Waiver, and Consent ("AWC") to describe the steps it has taken to correct and substantially reduce the risk of recurrence of the issues addressed by the AWC.

The AWC addresses a strategy that was implemented in 2008 and ceased operating in 2012. At the time the strategy was developed, Citadel Securities had processes in place to test and monitor the implementation and modification of its algorithmic trading strategies. Over the past eight and a half years, Citadel Securities has increasingly formalized these processes with corresponding enhancements to the required documentation regarding developers' efforts to ensure that the design of a strategy under consideration would not adversely affect the market, including any unintended market impact. Citadel Securities' current policies and procedures require: (a) restricted technology access rights to Citadel Securities' source code, development, testing, and production environments, and trading systems; (b) formalized and documented development and testing of new trading systems and changes to existing trading systems; (c) formalized and documented review and approval by business supervisors and technology managers of technology releases; (d) business and quantitative research approval of new or modified trading algorithms and, in certain circumstances, review by Legal and Compliance; and (e) enhanced real-time monitoring for potential trading system issues. Although many of these requirements were satisfied informally during the time period addressed by the AWC, the current procedures prescribe uniform compliance with each requirement prior to the implementation of a new strategy or material modification to a strategy.

When the strategy at issue in the AWC was implemented, Citadel Securities required personnel engaged in trading functions to be registered with FINRA. For more than six years, Citadel Securities has also required registration for the individuals responsible for supervising the design and operation of Citadel Securities' algorithmic trading strategies, including the supervisors of Citadel Securities' quantitative research function.

In addition, since 2010, Citadel Securities has extended its existing automatic archiving for regulatory purposes to all electronic communications sent and received by those professionals performing the functions described in the AWC. Citadel Securities' systems now automatically retain electronic communications for all Citadel LLC personnel.