EXHIBIT 5A

(additions are <u>underlined</u>; deletions are [bracketed])

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Rules of Cboe Exchange, Inc.

(currently effective)

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[Rule 15.1. Maintenance, Retention and Furnishing of Books, Records and Other Information

Each Trading Permit Holder shall make, keep current and preserve such books and records as the Exchange may prescribe and as may be prescribed by the Exchange Act as though such Trading Permit Holder were a broker or dealer registered pursuant to Section 15 of such Act. No Trading Permit Holder shall refuse to make available to the Exchange such books, records or other information as may be called for under the Rules or as may be requested in connection with an investigation by the Exchange.

... Interpretations and Policies:

- The following Rules contain specific requirements with regard to the maintenance and retention of books, records and other information: Rules 3.4, 3.6, 8.9, 9.6, 9.7, 9.8, 9.10, 9.21, 9.23, 11.2, 12.12 and Chapter XV. In addition, the following Rules contain specific requirements with regard to the furnishing of information to the Exchange: Rules 3.7, 3.9, 3.17, 3.18, 3.20, 3.21, 3.23, 3.25, 4.9, 4.13, 6.49, 6.51, 6.56, 6.59, 6.71, 6.72, 7.2, 7.3, 7.6, 8.2, 8.3, 8.5, 8.10, 8.11, 9.1, 9.2, 9.3, 12.11, 13.4, 14.2 and 19.2. The foregoing list is not intended to be exhaustive and Trading Permit Holders must comply with all applicable recordkeeping and reporting requirements whether or not listed above.
- .02 Each TPH organization that clears stock transactions and for which the Exchange is the DEA shall maintain records of short stock positions in all customer and proprietary firm accounts for securities listed on a United States registered national securities exchange or for securities whose bids and offers are reported on the automated quotation system operated by the National Association of Securities Dealers, Inc. ("NASD"). Each such Trading Permit Holder that is not required to report short interest data to another stock exchange or to the NASD as a result of being a Trading Permit Holder of such organization shall report these short stock positions to either a stock exchange or to the NASD, as the Exchange so directs. The form, manner, and time of such report shall be specified by the appropriate exchange or the NASD.
- .03 In addition to the existing obligations under Exchange rules regarding the production of books and records, a Market-Maker in non-U.S. currency, non-U.S. currency options, futures or options on futures on such currency, or any other derivatives based on such currency, shall make available to the Exchange such books, records or other information pertaining to transactions in non-U.S. currency and the applicable non-U.S. currency, non-U.S. currency options, futures or

options on futures on such currency, or any other derivatives on such currency, as may be requested by the Exchange.

.04 In addition to the existing obligation under Exchange rules regarding the production of books and records, a Market-Maker in options on Commodity Pool Units, shall make available to the Exchange such books, records or other information pertaining to transactions in the applicable physical commodity, physical commodity options, commodity futures contracts, options on commodity futures contracts, or any other derivatives on such commodity, as may be requested by the Exchange.]

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[Rule 15.3. Reports of Uncovered Short Positions

Upon request of the Exchange, each Trading Permit Holder shall submit to the Department of Compliance a report of the total uncovered short positions in each option contract of a class dealt in on the Exchange showing: (a) positions carried by such Trading Permit Holder for its own account and (b) positions carried by such Trading Permit Holder for the accounts of customers; provided that the Trading Permit Holders shall not report positions carried for the accounts of other Trading Permit Holders where such other Trading Permit Holders report the positions themselves. Such report shall be submitted not later than the second business day following the date the request is made.]

[Rule 15.4. Reserved

Reserved

[Rule 15.5. Financial Reports

Each Trading Permit Holder shall submit to the Exchange answers to financial questionnaires, reports of income and expenses and additional financial information in the type, form, manner and time prescribed by the Exchange.

See Rule 17.50(g)(2).

... Interpretations and Policies:

- .01 Trading Permit Holders who are net capital computing must file electronically with the Exchange any required monthly and quarterly FOCUS Reports utilizing the system or software prescribed by the Exchange, which will be announced via Regulatory Circular.
- .02 Trading permit Holders who file an annual FOCUS Report and who are not net capital computing must file electronically with the Exchange the annual FOCUS Report and Schedule 1 utilizing the system or software prescribed by the Exchange, which will be announced via Regulatory Circular.]

[Rule 15.6. Audits

- Annual Audit. Each TPH organization approved to do business with the public in (a) accordance with Chapter IX of the Rules and each registered Market-Maker shall file a report of its financial condition as of a date within each calendar year prepared in accordance with the requirements of SEC Rule 17a-5 and Form X-17A-5 and containing the information called for by that form. The report of each Trading Permit Holder approved to do business with the public shall be certified by an independent public accountant, and on or before January 10 of each year, each such Trading Permit Holder shall notify the Exchange of the name of the independent public accountant appointed for that year and the date as of which the report will be made. Such report of financial condition, together with answers to an Exchange financial questionnaire based upon the report, shall be filed with the Exchange not later than 60 days after the date as of which the financial condition of the Trading Permit Holder is reported, or such other period as the Exchange may individually require. Any such Trading Permit Holder may file in lieu of the report required by this Rule a copy of any financial statement which he is, or has been required to file with any other national securities exchange or national securities association of which he is a member, or with any agency of any State as a condition of doing business in securities therein, and which is acceptable to the Exchange as containing substantially the same information as Form X-17A-5.
- (b) Additional Audits. In addition to the annual report required of certain Trading Permit Holders pursuant to paragraph (a) of this Rule, the Exchange may require any Trading Permit Holder to cause an audit of its financial condition to be made by an independent public accountant in accordance with the audit requirements of SEC Form X-17A-5 as of the date of an answer to a financial questionnaire, and to file a statement to the effect that such audit has been made and whether it is in accord with the answer to the questionnaire. Such statement shall be signed by two general partners in the case of a TPH organization, by two executive officers in the case of a Trading Permit Holder corporation or by an individual Trading Permit Holder and it shall be attested by the independent public accountant who certified the audit. The original report of the audit signed by the independent public accountant shall be retained as part of the books and records of the Trading Permit Holder.]

[Rule 15.7. Automated Submission of Trading Data

A Trading Permit Holder or TPH organization shall submit the trade data elements specified below in such automated format as may be prescribed by the Exchange from time to time, in regard to such transaction or transactions that are the subject of a particular request for information made by the Exchange:

- (a) if the transaction was a proprietary transaction effected or caused to be effected by the Trading Permit Holder or TPH organization for any account in which such Trading Permit Holder or TPH organization, or any member, allied member, approved person, partner, officer, director, or employee thereof, is directly or indirectly interested, such Trading Permit Holder or TPH organization shall submit or cause to be submitted the following information:
 - 1. Clearing house number, or alpha symbol as used by the Trading Permit Holder or the TPH organization submitting the data;

- 2. Clearing house number(s), or alpha symbol(s) as may be used from time to time, of the Trading Permit Holder(s) or TPH organization(s) on the opposite side of the transaction:
- 3. Identifying symbol assigned to the security and where applicable for options the month and series symbols;
 - 4. Date transaction was executed;
- 5. Number of option contracts for each specific transaction and whether each transaction was an opening or closing purchase or sale; and where applicable the number of shares traded or held by accounts for which option data is submitted; and where applicable the number of shares for each specific transaction and whether each transaction was a purchase, sale or short sale;
 - 6. Transaction price;
 - 7. Account number; and
 - 8. Market center where transaction was executed.
- (b) If the transaction was effected or caused to be effected by the TPH organization for any customer account, such TPH organization shall submit or cause to be submitted the following information:
 - 1. Data elements (1) through (8) as contained in paragraph (a) above;
 - 2. Customer name, address(es), branch office number, registered representative number, whether order was solicited or unsolicited, date account opened and employer name and the tax identification number(s); and
 - 3. If the transaction was effected for a Trading Permit Holder broker-dealer customer, whether the broker-dealer was acting as a principal or agent on the transaction or transactions that are the subject of the Exchange's request.
- (c) In addition to the above trade data elements, a Trading Permit Holder or TPH organization shall submit such other information in such automated format as may be prescribed by the Exchange, as may from time to time be required.
- (d) The Exchange may grant exceptions, in such cases and for such time periods as it deems appropriate, from the requirement that the data elements prescribed in paragraphs (a) and (b) above be submitted to the Exchange in an automated format.]

[Rule 15.8. Risk Analysis of Market-Maker Accounts

(a) Each TPH organization which clears or guarantees the transactions of options Market-Makers pursuant to Exchange Rule 8.5, shall establish and maintain written procedures for assessing and monitoring the potential risks to the TPH organization's capital over a

specified range of possible market movements of positions maintained in such options Market-Maker accounts and such related accounts as the Exchange shall from time to time direct. Current procedures shall be filed and maintained with the Department of Financial Compliance. The procedures shall specify the computations to be made, the frequency of computations, the records to be reviewed and maintained and the position(s) within the organization responsible for the risk function.

(b) Upon direction by the Department of Financial Compliance, each affected TPH organization shall provide to the Department such information as the Department may reasonably require with respect to the TPH organization's risk analysis for any or all of its options Market-Maker accounts.

... Interpretations and Policies:

- .01 Each affected TPH organization shall at a minimum assess and monitor its own potential risk of loss from options Market-Maker accounts each business day as of the close of business the prior day through use of an Exchange approved computerized risk analysis program. The program shall comply with at least the minimum standards specified below and such other standards as from time to time may be prescribed by the Exchange in written memoranda to all affected TPH organizations:
- (i) The estimated loss to the Clearing TPH organization for each Market-Maker account (potential account deficit) shall be determined given the impact of broad market movements in reasonable intervals over a range from negative 15% to positive 15%.
- (ii) The TPH organization shall calculate volatility using a method approved by the Exchange, with volatility updated at least weekly. The program must have the capability of expanding volatility when projecting losses throughout the range of broad market movements.
- (iii) Options prices shall be estimated through use of recognized options pricing models such as, but not limited to, Black-Scholes and Cox-Reubenstein.
- (iv) At a minimum, written reports shall be generated which describe for each market scenario: the projected loss per options class by account; the projected total loss per options class for all accounts; the projected deficits per account and in aggregate.]

[Rule 15.8A. Risk Analysis of Portfolio Margin Accounts

(a) Each TPH organization that maintains any portfolio margin accounts for customers shall establish and maintain a comprehensive written risk analysis methodology for assessing and monitoring the potential risk to the TPH organization's capital over a specified range of possible market movements of positions maintained in such accounts. The risk analysis methodology shall specify the computations to be made, the frequency of computations, the records to be reviewed and maintained, and the person(s) within the organization responsible for the risk function. This risk analysis methodology must be filed with the TPH organization's DEA and submitted to the SEC prior to the implementation of portfolio margining.

- (b) Upon direction by the Department of TPH Organization Regulation, each affected TPH organization shall provide to the Department such information as the Department may reasonably require with respect to the TPH organization's risk analysis for any or all of the portfolio margin accounts it maintains for customers.
- (c) In conducting the risk analysis of portfolio margin accounts required by this Rule 15.8A, each TPH organization shall include in the written risk analysis methodology required pursuant to paragraph (a) above procedures and guidelines for
 - (1) obtaining and reviewing the appropriate customer account documentation and financial information necessary for assessing the amount of credit extended to customers.
 - (2) the determination, review and approval of credit limits to each customer, and across all customers, utilizing a portfolio margin account,
 - (3) monitoring credit risk exposure to the TPH organization from portfolio margin accounts, on both an intra-day and end of day basis, including the type, scope and frequency of reporting to senior management,
 - (4) the use of stress testing of portfolio margin accounts in order to monitor market risk exposure from individual accounts and in the aggregate,
 - (5) the regular review and testing of these risk analysis procedures by an independent unit such as internal audit or other comparable group,
 - (6) managing the impact of credit extension on the TPH organization's overall risk exposure,
 - (7) the appropriate response by management when limits on credit extensions have been exceeded,
 - (8) determining the need to collect additional margin from a particular eligible participant, including whether that determination was based upon the creditworthiness of the participant and/or the risk of the eligible position(s), and
 - (9) monitoring the credit exposure resulting from concentrated positions within both individual portfolio margin accounts and across all portfolio margin accounts.

Moreover, management must periodically review, in accordance with written procedures, the TPH organization's credit extension activities for consistency with these guidelines. Management must periodically determine if the data necessary to apply this Rule 15.8A is accessible on a timely basis and information systems are available to capture, monitor, analyze and report relevant data.]

[Rule 15.9. Regulatory Cooperation

- (a) The Exchange may enter into agreements with domestic and foreign self-regulatory organizations, associations and contract markets, the regulators of such markets, and the Public Company Accounting Oversight Board, which provide for the exchange of information and other forms of mutual assistance for market surveillance, investigative, enforcement and other regulatory purposes.
- (b) The Exchange may enter into one or more agreements with another self-regulatory organization to provide regulatory services to the Exchange to assist the Exchange in discharging its obligations under Section 6 and Section 19(g) of the Securities Exchange Act of 1934. Any action taken by another self-regulatory organization, or its employees or authorized agents, acting on behalf of the Exchange pursuant to a regulatory services agreement shall be deemed to be an action taken by the Exchange; provided, however, that nothing in this provision shall affect the oversight of such other self-regulatory organization by the Securities and Exchange Commission. Notwithstanding the fact that the Exchange may enter into one or more regulatory services agreements, the Exchange shall retain ultimate legal responsibility for, and control of, its self-regulatory responsibilities, and any such regulatory services agreement shall so provide.
- (c) So long as a Trading Permit Holder or person associated with a Trading Permit Holder remains subject to the disciplinary jurisdiction of the Exchange as set forth in Rule 17.1, such Trading Permit Holder or person associated with a Trading Permit Holder shall be obligated to furnish testimony, documentary evidence or other information to the full extent provided in Rule 17.2(b), whether or not an investigation has been initiated by the Exchange against any person pursuant to Rule 17.2(a), if such information is requested by the Exchange in connection with any inquiry resulting from an agreement entered into by the Exchange pursuant to paragraphs (a) or (b) of this Rule. Whenever information is requested by the Exchange pursuant to this Rule, the Trading Permit Holder or person associated with a Trading Permit Holder from whom the information is requested shall have the same rights and procedural protections in responding to such request as such person would have in the case of any other request for information initiated by the Exchange pursuant to Rule 17.2(b).]

[Rule 15.10. Fingerprint-Based Background Checks of Exchange Directors, Officers, Employees and Others

(a) In order to enhance the security of the facilities, systems, data, and records of the Exchange (collectively, "facilities and records"), the Exchange conducts fingerprint-based criminal records checks of (i) directors, officers and employees of the Exchange, and (ii) temporary personnel, independent contractors, consultants, vendors and service providers who have or are anticipated to have access to its facilities and records (collectively, "contractors"). The Exchange also conducts fingerprint-based criminal records checks of Exchange director candidates that are not already serving on the Exchange's Board before they are formally nominated and of employee candidates after an offer of employment has been made by the Exchange. The Exchange may choose to not obtain fingerprints from, or to seek fingerprint-based information with respect to, any contractor due to that contractor's limited, supervised, or restricted access to facilities and records, or the nature or location of his or her work or services,

or if the contractor's employer conducts fingerprint based criminal records checks of its personnel.

- (b) The Exchange shall submit fingerprints obtained pursuant to this rule to the Attorney General of the United States or his or her designee for identification and processing. The Exchange shall at all times maintain the security of all fingerprints provided to, and all criminal history record information received from, the Attorney General or his or her designee. The Exchange shall redisseminate fingerprints and criminal history record information only to the extent permitted by applicable law.
- (c) The Exchange shall evaluate information received from the Attorney General or his or her designee and otherwise administer this rule in accordance with Exchange fingerprint procedures as in effect from time to time and the provisions of applicable law. Fingerprint-based criminal record information that reflects felony or misdemeanor convictions will be a factor in making employment decisions; engaging or retaining any contractors; or permitting any fingerprinted person access to facilities and records.
- (d) Any employee who refuses to submit to fingerprinting will be subject to progressive discipline up to and including the termination of employment. Any person who is given an offer of employment with the Exchange who refuses to submit to fingerprinting will have the offer withdrawn. A contractor who refuses to submit to fingerprinting will be denied access to facilities and records.]

* * * *

[Section F: Consolidated Audit Trail (CAT) Compliance Rule]

[Rule 6.85. Definitions

For purposes of this Section F:

- (a) "Account Effective Date" means:
- (i) with regard to those circumstances in which an Industry Member has established a trading relationship with an institution but has not established an account with that institution:
 - (A) when the trading relationship was established prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, either
 - (1) the date the relationship identifier was established within the Industry Member;
 - (2) the date when trading began (i.e., the date the first order was received) using the relevant relationship identifier; or

- (3) if both dates are available, the earlier date will be used to the extent that the dates differ; or
- (B) when the trading relationship was established on or after November 15, 2018 for Industry Members other than Small Industry Members, or on or after November 15, 2019 for Small Industry Members, the date the Industry Member established the relationship identifier, which would be no later than the date the first order was received:
- (ii) where an Industry Member changes back office providers or clearing firms prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, the date an account was established at the relevant Industry Member, either directly or via transfer;
- (iii) where an Industry Member acquires another Industry Member prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, the date an account was established at the relevant Industry Member, either directly or via transfer;
- (iv) where there are multiple dates associated with an account established prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, the earliest available date; or
- (v) with regard to Industry Member proprietary accounts established prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members:
 - (A) the date established for the account in the Industry Member or in a system of the Industry Member or
 - (B) the date when proprietary trading began in the account (i.e., the date on which the first orders were submitted from the account).

With regard to paragraphs (ii) through (v), the Account Effective Date will be no later than the date trading occurs at the Industry Member or in the Industry Member's system.

- (b) "Active Accounts" means an account that has had activity in Eligible Securities within the last six months.
- (c) "Allocation Report" means a report made to the Central Repository by an Industry Member that identifies the Firm Designated ID for any account(s), including subaccount(s), to which executed shares are allocated and provides the security that has been allocated, the identifier of the firm reporting the allocation, the price per share of shares allocated, the side of shares allocated, the number of shares allocated to each account, and the time of the allocation; provided, for the avoidance of doubt, any such Allocation Report shall not be required to be linked to particular orders or executions.

- (d) "Business Clock" means a clock used to record the date and time of any Reportable Event required to be reported under this Section F.
 - (e) "CAT" means the consolidated audit trail contemplated by SEC Rule 613.
- (f) "CAT NMS Plan" means the National Market System Plan Governing the Consolidated Audit Trail, as amended from time to time.
- (g) "CAT-Order-ID" means a unique order identifier or series of unique order identifiers that allows the Central Repository to efficiently and accurately link all Reportable Events for an order, and all orders that result from the aggregation or disaggregation of such order.
- (h) "CAT Reporting Agent" means a Data Submitter that is a third party that enters into an agreement with an Industry Member pursuant to which the CAT Reporting Agent agrees to fulfill such Industry Member's reporting obligations under this Section F.
- (i) "Central Repository" means the repository responsible for the receipt, consolidation, and retention of all information reported to the CAT pursuant to SEC Rule 613 and the CAT NMS Plan.
 - (j) "Compliance Threshold" has the meaning set forth in Rule 6.95(d).
 - (k) "Customer" means:
 - (i) the account holder(s) of the account at an Industry Member originating the order; and
 - (ii) any person from whom the Industry Member is authorized to accept trading instructions for such account, if different from the account holder(s).
- (l) "Customer Account Information" shall include, but not be limited to, account number, account type, customer type, date account opened, and large trader identifier (if applicable); except, however, that:
 - (i) in those circumstances in which an Industry Member has established a trading relationship with an institution but has not established an account with that institution, the Industry Member will:
 - (A) provide the Account Effective Date in lieu of the "date account opened";
 - (B) provide the relationship identifier in lieu of the "account number"; and
 - (C) identify the "account type" as a "relationship"; or

- (ii) in those circumstances in which the relevant account was established prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, and no "date account opened" is available for the account, the Industry Member will provide the Account Effective Date in the following circumstances:
 - (A) where an Industry Member changes back office providers or clearing firms and the date account opened is changed to the date the account was opened on the new back office/clearing firm system;
 - (B) where an Industry Member acquires another Industry Member and the date account opened is changed to the date the account was opened on the post-merger back office/clearing firm system;
 - (C) where there are multiple dates associated with an account in an Industry Member's system, and the parameters of each date are determined by the individual Industry Member; and
 - (D) where the relevant account is an Industry Member proprietary account.
- (m) "Customer Identifying Information" means information of sufficient detail to identify a Customer, including, but not limited to:
 - (i) with respect to individuals: name, address, date of birth, individual tax payer identification number ("ITIN")/social security number ("SSN"), individual's role in the account (e.g., primary holder, joint holder, guardian, trustee, person with the power of attorney); and
 - (ii) with respect to legal entities: name, address, Employer Identification Number ("EIN")/Legal Entity Identifier ("LEI") or other comparable common entity identifier, if applicable; provided, however, that an Industry Member that has an LEI for a Customer must submit the Customer's LEI in addition to other information of sufficient detail to identify a Customer.
- (n) "Data Submitter" means any person that reports data to the Central Repository, including national securities exchanges, national securities associations, broker-dealers, the SIPs for the CQS, CTA, UTP Plans and the Plan for Reporting of Consolidated Options Last Sale Reports and Quotation Information ("OPRA"), and certain other vendors or third parties that may submit data to the Central Repository on behalf of Industry Members.
- (o) "Eligible Security" includes (i) all NMS Securities and (ii) all OTC Equity Securities.
- (p) "Error Rate" means the percentage of Reportable Events collected by the Central Repository in which the data reported does not fully and accurately reflect the order event that occurred in the market.

- (q) "Firm Designated ID" means a unique identifier for each trading account designated by Industry Members for purposes of providing data to the Central Repository, where each such identifier is unique among all identifiers from any given Industry Member for each business date.
- (r) "Industry Member" means a member of a national securities exchange or a member of a national securities association.
 - (s) "Industry Member Data" has the meaning set forth in Rule 6.87(a)(ii).
- (t) "Initial Plan Processor" means the first Plan Processor selected by the Operating Committee in accordance with SEC Rule 613, Section 6.1 of the CAT NMS Plan and the National Market System Plan Governing the Process for Selecting a Plan Processor and Developing a Plan for the Consolidated Audit Trail.
- (u) (u) "Listed Option" or "Option" has the meaning set forth in Rule 600(b)(35) of Regulation NMS.
- (v) "Manual Order Event" means a non-electronic communication of order-related information for which Industry Members must record and report the time of the event.
- (w) "Material Terms of the Order" includes: the NMS Security or OTC Equity Security symbol; security type; price (if applicable); size (displayed and non-displayed); side (buy/sell); order type; if a sell order, whether the order is long, short, short exempt; open/close indicator (except on transactions in equities); time in force (if applicable); if the order is for a Listed Option, option type (put/call), option symbol or root symbol, underlying symbol, strike price, expiration date, and open/close (except on market maker quotations); and any special handling instructions.
- (x) "NMS Security" means any security or class of securities for which transaction reports are collected, processed, and made available pursuant to an effective transaction reporting plan, or an effective national market system plan for reporting transactions in Listed Options.
 - (y) "NMS Stock" means any NMS Security other than an option.
- (z) "Operating Committee" means the governing body of the CAT NMS, LLC designated as such and described in Article IV of the CAT NMS Plan.
- (aa) "Options Market Maker" means a broker-dealer registered with an exchange for the purpose of making markets in options contracts traded on the exchange.
 - (bb) "Order" or "order", with respect to Eligible Securities, shall include:
 - (i) Any order received by an Industry Member from any person;
 - (ii) Any order originated by an Industry Member; or

- (iii) Any bid or offer.
- (cc) "OTC Equity Security" means any equity security, other than an NMS Security, subject to prompt last sale reporting rules of a registered national securities association and reported to one of such association's equity trade reporting facilities.
- (dd) "Participant" means each Person identified as such in Exhibit A of the CAT NMS Plan, as amended, in such Person's capacity as a Participant in CAT NMS, LLC.
- (ee) "Person" means any individual, partnership, limited liability company, corporation, joint venture, trust, business trust, cooperative or association and any heirs, executors, administrators, legal representatives, successors and assigns of such Person where the context so permits.
- (ff) "Plan Processor" means the Initial Plan Processor or any other Person selected by the Operating Committee pursuant to SEC Rule 613 and Sections 4.3(b)(i) and 6.1 of the CAT NMS Plan, and with regard to the Initial Plan Processor, the National Market System Plan Governing the Process for Selecting a Plan Processor and Developing a Plan for the Consolidated Audit Trail, to perform the CAT processing functions required by SEC Rule 613 and set forth in the CAT NMS Plan.
 - (gg) "Received Industry Member Data" has the meaning set forth in Rule 6.87(a)(ii).
 - (hh) "Recorded Industry Member Data" has the meaning set forth in Rule 6.87(a)(i).
- (ii) ("Reportable Event" includes, but is not limited to, the original receipt or origination, modification, cancellation, routing, execution (in whole or in part) and allocation of an order, and receipt of a routed order.
- (jj) "SRO" means any self-regulatory organization within the meaning of Section 3(a)(26) of the Exchange Act.
- (kk) "SRO-Assigned Market Participant Identifier" means an identifier assigned to an Industry Member by an SRO or an identifier used by a Participant.
- (ll) "Small Industry Member" means an Industry Member that qualifies as a small broker-dealer as defined in Rule 0-10(c) under the Exchange Act.
- (mm) "Trading Day" shall have the meaning as is determined by the Operating Committee. For the avoidance of doubt, the Operating Committee may establish different Trading Days for NMS Stocks (as defined in SEC Rule 600(b)(47)), Listed Options, OTC Equity Securities, and any other securities that are included as Eligible Securities from time to time.]

[Rule 6.86. Clock Synchronization

(a) Clock Synchronization

- (i) Each Industry Member shall synchronize its Business Clocks, other than such Business Clocks used solely for Manual Order Events or used solely for the time of allocation on Allocation Reports, at a minimum to within a fifty (50) millisecond tolerance of the time maintained by the atomic clock of the National Institute of Standards and Technology ("NIST"), and maintain such synchronization.
- (ii) Each Industry Member shall synchronize (A) its Business Clocks used solely for Manual Order Events and (B) its Business Clocks used solely for the time of allocation on Allocation Reports at a minimum to within a one second tolerance of the time maintained by the NIST atomic clock, and maintain such synchronization.
- (iii) The tolerance for paragraphs (a)(i) and (ii) of this Rule includes all of the following:
 - (A) The difference between the NIST atomic clock and the Industry Member's Business Clock;
 - (B) The transmission delay from the source; and
 - (C) The amount of drift of the Industry Member's Business Clock.
- (iv) Business Clocks must be synchronized every business day before the open of each trading session to ensure that time stamps for Reportable Events are accurate. To maintain clock synchronization, Business Clocks must be checked against the NIST atomic clock and re-synchronized, as necessary, throughout the day.
- (b) Documentation. Industry Members must document and maintain their synchronization procedures for Business Clocks. Industry Members must keep a log of the times when they synchronize their Business Clocks and the results of the synchronization process. This log should include notice of any time a Business Clock drifts more than the applicable tolerance specified in paragraph (a) of this Rule. Such log must include results for a period of not less than five years ending on the then current date, or for the entire period for which the Industry Member has been required to comply with this Rule if less than five years.
- (c) Certification. Each Industry Member shall certify to the Exchange that its Business Clocks satisfy the synchronization requirements set forth in paragraph (a) of this Rule periodically in accordance with the certification schedule established by the Operating Committee pursuant to the CAT NMS Plan.
- (d) Violation Reporting. Each Industry Member with Business Clocks must report to the Plan Processor and the Exchange violations of paragraph (a) of this Rule pursuant to the thresholds set by the Operating Committee pursuant to the CAT NMS Plan.]

[Rule 6.87. Industry Member Data Reporting

(a) Recording and Reporting Industry Member Data.

- (i) Subject to paragraph (iii) below, each Industry Member shall record and electronically report to the Central Repository the following details for each order and each Reportable Event, as applicable ("Recorded Industry Member Data"), in the manner prescribed by the Operating Committee pursuant to the CAT NMS Plan:
 - (A) for original receipt or origination of an order:
 - (1) Firm Designated ID(s) for each Customer;
 - (2) CAT-Order-ID;
 - (3) SRO-Assigned Market Participant Identifier of the Industry Member receiving or originating the order;
 - (4) date of order receipt or origination;
 - (5) time of order receipt or origination (using time stamps pursuant to Rule 6.90); and
 - (6) Material Terms of the Order;
 - (B) for the routing of an order:
 - (1) CAT-Order-ID;
 - (2) date on which the order is routed;
 - (3) time at which the order is routed (using time stamps pursuant to Rule 6.90);
 - (4) SRO-Assigned Market Participant Identifier of the Industry Member routing the order;
 - (5) SRO-Assigned Market Participant Identifier of the Industry Member or Participant to which the order is being routed;
 - (6) if routed internally at the Industry Member, the identity and nature of the department or desk to which the order is routed; and
 - (7) Material Terms of the Order;
 - (C) for the receipt of an order that has been routed, the following information:
 - (1) CAT-Order-ID;
 - (2) date on which the order is received;

- (3) time at which the order is received (using time stamps pursuant to Rule 6.90);
- (4) SRO-Assigned Market Participant Identifier of the Industry Member receiving the order;
- (5) SRO-Assigned Market Participant Identifier of the Industry Member or Participant routing the order; and
 - (6) Material Terms of the Order;
- (D) if the order is modified or cancelled:
 - (1) CAT-Order-ID;
- (2) date the modification or cancellation is received or originated;
- (3) time at which the modification or cancellation is received or originated (using time stamps pursuant to Rule 6.90);
 - (4) price and remaining size of the order, if modified;
- (5) other changes in the Material Terms of the Order, if modified; and
- (6) whether the modification or cancellation instruction was given by the Customer or was initiated by the Industry Member;
- (E) if the order is executed, in whole or in part:
 - (1) CAT-Order-ID;
 - (2) date of execution;
- (3) time of execution (using time stamps pursuant to Rule 6.90);
 - (4) execution capacity (principal, agency or riskless principal);
 - (5) execution price and size;
- (6) SRO-Assigned Market Participant Identifier of the Industry Member executing the order; and
- (7) whether the execution was reported pursuant to an effective transaction reporting plan or OPRA; and

- (F) other information or additional events as may be prescribed pursuant to the CAT NMS Plan.
- (ii) Subject to paragraph (iii) below, each Industry Member shall record and report to the Central Repository the following, as applicable ("Received Industry Member Data" and, collectively with the information referred to in Rule 6.87(a)(1), "Industry Member Data")), in the manner prescribed by the Operating Committee pursuant to the CAT NMS Plan:
 - (A) if the order is executed, in whole or in part:
 - (1) Allocation Report;
 - (2) SRO-Assigned Market Participant Identifier of the clearing broker or prime broker, if applicable; and
 - (3) CAT-Order-ID of any contra-side order(s);
 - (B) if the trade is cancelled, a cancelled trade indicator; and
 - (C) for original receipt or origination of an order, the Firm Designated ID for the relevant Customer, and in accordance with Rule 6.88, Customer Account Information and Customer Identifying Information for the relevant Customer.
- (iii) Each Industry Member that is an Options Market Maker is not required to report to the Central Repository the Industry Member Data regarding the routing, modification or cancellation of its quotes in Listed Options. Each Industry Member that is an Options Market Maker shall report to the Exchange the time at which its quote in a Listed Option is sent to the Exchange (and, if applicable, any subsequent quote modification time and/or cancellation time when such modification or cancellation is originated by the Options Market Maker).
- (b) Timing of Recording and Reporting.
- (i) Each Industry Member shall record Recorded Industry Member Data contemporaneously with the applicable Reportable Event.
 - (ii) Each Industry Member shall report:
 - (A) Recorded Industry Member Data to the Central Repository by 8:00 a.m. (Eastern time) on the Trading Day following the day the Industry Member records such Recorded Industry Member Data; and
 - (B) Received Industry Member Data to the Central Repository by 8:00 a.m. (Eastern time) on the Trading Day following the day the Industry Member receives such Received Industry Member Data.

(iii) Industry Members may, but are not required to, voluntarily report Industry Member Data prior to the applicable 8:00 a.m. (Eastern time) deadline.

(c) Applicable Securities.

- (i) Each Industry Member shall record and report to the Central Repository the Industry Member Data as set forth in paragraph (a) of this Rule for each NMS Security registered or listed for trading on an exchange or admitted to unlisted trading privileges on an exchange.
- (ii) Each Industry Member shall record and report to the Central Repository the Industry Member Data as set forth in paragraph (a) of this Rule for each Eligible Security for which transaction reports are required to be submitted to a national securities association.

(d) Security Symbology.

- (i) For each exchange-listed Eligible Security, each Industry Member shall report Industry Member Data to the Central Repository using the symbology format of the exchange listing the security.
- (ii) For each Eligible Security that is not exchange-listed, each Industry Member shall report Industry Member Data to the Central Repository using such symbology format as approved by the Operating Committee pursuant to the CAT NMS Plan.
- (e) Error Correction. For each Industry Member for which errors in Industry Member Data submitted to the Central Repository have been identified by the Plan Processor or otherwise, such Industry Member shall submit corrected Industry Member Data to the Central Repository by 8:00 a.m. Eastern time on T+3.]

[Rule 6.88. Customer Information Reporting

- (a) Initial Set of Customer Information. Each Industry Member shall submit to the Central Repository the Firm Designated ID, Customer Account Information and Customer Identifying Information for each of its Customers with an Active Account prior to such Industry Member's commencement of reporting to the Central Repository and in accordance with the deadlines set forth in Rule 6.93.
- (b) Daily Updates to Customer Information. Each Industry Member shall submit to the Central Repository any updates, additions or other changes to the Firm Designated ID, Customer Account Information and Customer Identifying Information for each of its Customers with an Active Account on a daily basis.
- (c) Periodic Updates to Complete Set of Customer Information. On a periodic basis as designated by the Plan Processor and approved by the Operating Committee, each Industry Member shall submit to the Central Repository a complete set of Firm Designated IDs,

Customer Account Information and Customer Identifying Information for each of its Customers with an Active Account.

(d) Error Correction. For each Industry Member for which errors in Firm Designated ID, Customer Account Information and Customer Identifying Information for each of its Customers with an Active Account submitted to the Central Repository have been identified by the Plan Processor or otherwise, such Industry Member shall submit corrected data to the Central Repository by 5:00 p.m. Eastern time on T+3.]

[Rule 6.89. Industry Member Information Reporting

Each Industry Member shall submit to the Central Repository information sufficient to identify such Industry Member, including CRD number and LEI, if such LEI has been obtained, prior to such Industry Member's commencement of reporting to the Central Repository and in accordance with the deadlines set forth in Rule 6.93, and keep such information up to date as necessary.]

[Rule 6.90. Time Stamps

- (a) Millisecond Time Stamps.
- (i) Subject to paragraphs (a)(ii) and (b), each Industry Member shall record and report Industry Member Data to the Central Repository with time stamps in milliseconds.
- (ii) Subject to paragraph (b), to the extent that any Industry Member's order handling or execution systems utilize time stamps in increments finer than milliseconds, such Industry Member shall record and report Industry Member Data to the Central Repository with time stamps in such finer increment.
- (b) One Second Time Stamps/Electronic Order Capture.
- (i) Each Industry Member may record and report Manual Order Events to the Central Repository in increments up to and including one second, provided that each Industry Member shall record and report the time when a Manual Order Event has been captured electronically in an order handling and execution system of such Industry Member (i.e. electronic capture time) in milliseconds; and
- (ii) Each Industry Member may record and report the time of Allocation Reports in increments up to and including one second.]

[Rule 6.91. Clock Synchronization Rule Violation

An Industry Member that engages in a pattern or practice of reporting Reportable Events outside of the required clock synchronization time period as set forth in this Section F without reasonable justification or exceptional circumstances may be considered in violation of this Rule.]

[Rule 6.92. Connectivity and Data Transmission

- (a) Data Transmission. Each Industry Member shall transmit data as required under the CAT NMS Plan to the Central Repository utilizing such format(s) as may be provided by the Plan Processor and approved by the Operating Committee.
- (b) Connectivity. Each Industry Member shall connect to the Central Repository using a secure method(s), including but not limited to private line(s) and virtual private network connection(s).

(c) CAT Reporting Agents.

- (i) Any Industry Member may enter into an agreement with a CAT Reporting Agent pursuant to which the CAT Reporting Agent agrees to fulfill the obligations of such Industry Member under this Section F. Any such agreement shall be evidenced in writing, which shall specify the respective functions and responsibilities of each party to the agreement that are required to effect full compliance with the requirements of this Section F.
- (ii) All written documents evidencing an agreement described in subparagraph (i) shall be maintained by each party to the agreement.
- (iii) Each Industry Member remains primarily responsible for compliance with the requirements of this Section F, notwithstanding the existence of an agreement described in this paragraph.]

[Rule 6.93. Development and Testing

(a) Development.

(i) Connectivity and Acceptance Testing.

- (A) Industry Members (other than Small Industry Members) shall begin connectivity and acceptance testing with the Central Repository no later than August 15, 2018.
- (B) Small Industry Members shall begin connectivity and acceptance testing with the Central Repository no later than August 15, 2019.

(ii) Reporting Customer and Industry Member Information.

- (A) Industry Members (other than Small Industry Members) shall begin reporting Customer and Industry Member information, as required by Rules 6.88(a) and 6.89, respectively, to the Central Repository for processing no later than October 15, 2018.
- (B) Small Industry Members shall begin reporting Customer and Industry Member information, as required by Rules 6.88(a) and 6.89,

respectively, to the Central Repository for processing no later than October 15, 2019.

(iii) Submission of Order Data.

- (A) Industry Members (other than Small Industry Members).
- (1) Industry Members (other than Small Industry Members) are permitted, but not required, to submit order data for testing purposes beginning no later than May 15, 2018.
- (2) Industry Members (other than Small Industry Members) shall participate in the coordinated and structured testing of order submission, which will begin no later than August 15, 2018.

(B) Small Industry Members

- (1) Small Industry Members are permitted, but not required, to submit order data for testing purposes beginning no later than May 15, 2019.
- (2) Small Industry Members shall participate in the coordinated and structured testing of order submission, which will begin no later than August 15, 2019.
- (iv) Submission of Options Market Maker Quotes. Industry Members are permitted, but not required to, submit Quote Sent Time on Options Market Maker quotes, beginning no later than October 15, 2018.
- (b) Testing. Each Industry Member shall participate in testing related to the Central Repository, including any industry-wide disaster recovery testing, pursuant to the schedule established pursuant to the CAT NMS Plan.]

[Rule 6.94. Recordkeeping

Each Industry Member shall maintain and preserve records of the information required to be recorded under this Section F for the period of time and accessibility specified in SEC Rule 17a-4(b). The records required to be maintained and preserved under this Rule may be immediately produced or reproduced on "micrographic media" as defined in SEC Rule 17a-4(f)(1)(i) or by means of "electronic storage media" as defined in SEC Rule 17a-4(f)(1)(ii) that meet the conditions set forth in SEC Rule 17a-4(f) and be maintained and preserved for the required time in that form.]

[Rule 6.95. Timely, Accurate and Complete Data

(a) General. Industry Members are required to record and report data to the Central Repository as required by this Section F in a manner that ensures the timeliness, accuracy, integrity and completeness of such data.

- (b) LEIs. Without limiting the requirement set forth in paragraph (a), Industry Members are required to accurately provide the LEIs in their records as required by this Section F and may not knowingly submit inaccurate LEIs to the Central Repository; provided, however, that this requirement does not impose any additional due diligence obligations on Industry Members with regard to LEIs for CAT purposes.
- (c) Compliance with Error Rate. If an Industry Member reports data to the Central Repository with errors such that the error percentage exceeds the maximum Error Rate established by the Operating Committee pursuant to the CAT NMS Plan, then such Industry Member would not be in compliance with this Section F.
- (d) Compliance Thresholds. Each Industry Member shall be required to meet a separate compliance threshold which will be an Industry Member-specific rate that may be used as the basis for further review or investigation into the Industry Member's performance with regard to the CAT (the "Compliance Thresholds"). Compliance Thresholds will compare an Industry Member's error rate to the aggregate Error Rate over a period of time to be defined by the Operating Committee. An Industry Member's performance with respect to its Compliance Threshold will not signify, as a matter of law, that such Industry Member has violated this Section F.]

[Rule 6.96. Compliance Dates

(a) General. Except as set forth in paragraphs (b) and (c) of this Rule or otherwise set forth in this Section F, the Rules in this Section F are effective.

(b) Clock Synchronization.

- (i) Each Industry Member shall comply with Rule 6.86 with regard to Business Clocks that capture time in milliseconds commencing on or before March 15, 2017.
- (ii) Each Industry Member shall comply with Rule 6.86 with regard to Business Clocks that do not capture time in milliseconds commencing on or before February 19, 2018. *

(c) CAT Data Reporting.

- (1) Each Industry Member (other than a Small Industry Member) shall comply with the Rules regarding recording and reporting the Industry Member Data to the Central Repository commencing on or before November 15, 2018.
- (2) Each Industry Member that is a Small Industry Member shall comply with the Rules regarding recording and reporting the Industry Member Data to the Central Repository commencing on or before November 15, 2019.
- * Pending approval of exemptive relief regarding the compliance date for Business Clocks that do not capture time in milliseconds.]

[Rule 6.97. Fee Dispute Resolution

(a) Definitions.

- (i) For purposes of this Rule, the terms "CAT NMS Plan", "Industry Member", "Operating Committee", and "Participant" are defined as set forth in Rule 6.85 (Consolidated Audit Trail (CAT) Compliance Rule Definitions).
- (ii) "Subcommittee" means a subcommittee designated by the Operating Committee pursuant to the CAT NMS Plan.
- (iii) "CAT Fee" means any fees contemplated by the CAT NMS Plan and imposed on Industry Members pursuant to Exchange Rules.
- (b) Fee Dispute Resolution. Disputes initiated by an Industry Member with respect to CAT Fees charged to such Industry Member, including disputes related to the designated tier and the fee calculated pursuant to such tier, shall be resolved by the Operating Committee, or a Subcommittee designated by the Operating Committee, of the CAT NMS Plan, pursuant to the Fee Dispute Resolution Procedures adopted pursuant to the CAT NMS Plan and set forth in paragraph (c) of this Rule. Decisions on such matters shall be binding on Industry Members, without prejudice to the rights of any such Industry Member to seek redress from the SEC or in any other appropriate forum.

(c) Fee Dispute Resolution Procedures under the CAT NMS Plan.

- (i) Scope of Procedures. These Fee Dispute Resolution Procedures provide the procedure for Industry Members that dispute CAT Fees charged to such Industry Member, including disputes related to the designated tier and the fee calculated pursuant to such tier, to apply for an opportunity to be heard and to have the CAT Fees charged to such Industry Member reviewed.
- (ii) Submission and Time Limitation on Application to CAT NMS, LLC ("Company"). An Industry Member that disputes CAT Fees charged to such Industry Member and that desires to have an opportunity to be heard with respect to such disputed CAT Fees shall file a written application with the Company within 15 business days after being notified of such disputed CAT Fees. The application shall identify the disputed CAT Fees, state the specific reasons why the applicant takes exception to such CAT Fees, and set forth the relief sought. In addition, if the applicant intends to submit any additional documents, statements, arguments or other material in support of the application, the same should be so stated and identified.

(iii) Procedure Following Applications for Hearing

(A) Fee Review Subcommittee. The Company will refer applications for hearing and review promptly to the Subcommittee designated by the Operating Committee pursuant to Section 4.12 of the CAT NMS Plan with responsibility for conducting the reviews of CAT Fee disputes pursuant to these

Fee Dispute Resolution Procedures. This Subcommittee will be referred to as the Fee Review Subcommittee. The members of the Fee Review Subcommittee will be subject to the provisions of Section 4.3(d) of the CAT NMS Plan regarding recusal and Conflicts of Interest.

- (B) Record. The Fee Review Subcommittee will keep a record of the proceedings.
- (C) Hearings and Documents. The Fee Review Subcommittee will hold hearings promptly. The Fee Review Subcommittee will set a hearing date. The parties to the hearing (as described in paragraph (iv)(A) below) shall furnish the Fee Review Subcommittee with all materials relevant to the proceedings at least 72 hours prior to the date of the hearing. Each party shall have the right to inspect and copy the other party's materials prior to the hearing.

(iv) Hearing and Decision

- (A) Parties. The parties to the hearing shall consist of the applicant and a representative of the Company who shall present the reasons for the action taken by the Company that allegedly aggrieved the applicant.
- (B) Counsel. The applicant is entitled to be accompanied, represented and advised by counsel at all stages of the proceedings.
- (C) Conduct of Hearing. The Fee Review Subcommittee shall determine all questions concerning the admissibility of evidence and shall otherwise regulate the conduct of the hearing. Each of the parties shall be permitted to make an opening statement, present witnesses and documentary evidence, cross examine opposing witnesses and present closing arguments orally or in writing as determined by the Fee Review Subcommittee. The Fee Review Subcommittee also shall have the right to question all parties and witnesses to the proceeding. The Fee Review Subcommittee shall keep a record of the hearing. The formal rules of evidence shall not apply.
- (D) Decision. The Fee Review Subcommittee shall set forth its decision in writing and send the written decision to the parties to the proceeding. Such decisions shall contain the reasons supporting the conclusions of the Fee Review Subcommittee.

(v) Review

(A) Petition. The decision of the Fee Review Subcommittee shall be subject to review by the Operating Committee either on its own motion within 20 business days after issuance of the decision or upon written request submitted by the applicant within 15 business days after issuance of the decision. The applicant's petition shall be in writing and specify the findings and conclusions to which the applicant objects, together with the reasons for such objections. Any

objection to a decision not specified in writing shall be considered to have been abandoned and may be disregarded. Parties may petition to submit a written argument to the Operating Committee and may request an opportunity to make an oral argument before the Operating Committee. The Operating Committee shall have sole discretion to grant or deny either request.

- (B) Conduct of Review. The Operating Committee shall conduct the review. The review shall be made upon the record and shall be made after such further proceedings, if any, as the Operating Committee may order. Based upon such record, the Operating Committee may affirm, reverse or modify, in whole or in part, the decision of the Fee Review Subcommittee. The decision of the Operating Committee shall be in writing, shall be sent to the parties to the proceeding and shall be final.
- (vi) Time Limit for Review. A final decision regarding the disputed CAT Fees by the Operating Committee, or the Fee Review Subcommittee (if there is no review by the Operating Committee), must be provided within 90 days of the date on which the Industry Member filed a written application regarding disputed CAT Fees with the Company pursuant to paragraph (c)(ii) of these Fee Dispute Resolution Procedures. The Operating Committee may extend the 90-day time limit under this paragraph (c)(vi) at its discretion.

(vii) Miscellaneous Provisions

- (A) Service of Notice. Any notices or other documents may be served upon the applicant either personally or by leaving the same at its, his or her place of business or by deposit in the United States post office, postage prepaid, by registered or certified mail, addressed to the applicant at its, his or her last known business or residence address.
- (B) Extension of Certain Time Limits. Any time limits imposed under these Fee Dispute Resolution Procedures for the submission of answers, petitions or other materials may be extended by permission of the Operating Committee. All papers and documents relating to review by the Fee Review Subcommittee or the Operating Committee must be submitted to the Fee Review Subcommittee or Operating Committee, as applicable.
- (viii) Agency Review. Decisions on such CAT Fee disputes made pursuant to these Fee Dispute Resolution Procedures shall be binding on Industry Members, without prejudice to the rights of any such Industry Member to seek redress from the SEC or in any other appropriate forum.

(ix) Payment of Disputed CAT Fees

(A) Timing of Fee Payment. An Industry Member that files a written application with the Company regarding disputed CAT Fees in accordance with these Fee Dispute Resolution Procedures is not required to pay such disputed

CAT Fees until the dispute is resolved in accordance with these Fee Dispute Resolution Procedures, including any review pursuant to paragraph (c)(viii). For the purposes of this paragraph (c)(ix), the disputed CAT Fees means the amount of the invoiced CAT Fees that the Industry Member has asserted pursuant to these Fee Dispute Resolution Procedures that such Industry Member does not owe to the Company. The Industry Member must pay any invoiced CAT Fees that are not disputed CAT Fees when due as set forth in the original invoice.

(B) Interest on Unpaid CAT Fees. Once the dispute regarding CAT Fees is resolved pursuant to these Fee Dispute Resolution Procedures, if it is determined that the Industry Member owes any of the disputed CAT Fees, then the Industry Member must pay such disputed CAT Fees that are owed as well as interest on such disputed CAT Fees from the original due date (that is, 30 days after receipt of the original invoice of such CAT Fees) until such disputed CAT Fees are paid at a per annum rate equal to the lesser of (1) the Prime Rate plus 300 basis points, or (2) the maximum rate permitted by applicable law.]

* * * * *

[Rule 21.30. Furnishing of Books, Records and Other Information

No Market-Maker in Government securities options shall fail to make available to the Exchange such books, records or other information maintained by or in the possession of such Trading Permit Holder or any corporate affiliate of such Trading Permit Holder pertaining to transactions by such Trading Permit Holder or any such affiliate for its own account in Government securities, Government securities futures or in Government securities options as may be called for under the Rules or as may be requested in the course of any investigation, any inspection or other official inquiry by the Exchange. In addition, the provisions of Rule 8.9 governing identification of accounts and reports of orders shall, in the case of Market-Makers in Government securities options, apply to (i) accounts for Government securities deliverable under the terms of the option contracts involved, Government securities futures, options on Government securities futures and Government securities deliverable under the terms of the options contracts involved, Government securities deliverable under the terms of the options contracts involved, Government securities futures, options on Government securities and opening and closing positions therein.

... Interpretations and Policies:

.01 Any corporate affiliate of a Market-Maker in Government securities options shall maintain and preserve such books, records or other information as may be necessary to comply with Rule 21.30.

Rule 21.30 and Interpretation and Policy 21.30.01 supplement Rules 8.9 and 15.1 and the Interpretations and Policies thereunder.]

* * * * *

[Rule 23.15. Furnishing of Books, Records and Other Information

No Market-Maker in interest rate options shall fail to make available to the Exchange such books, records or other information maintained by or in the possession of such Trading Permit Holder or any corporate affiliate of such Trading Permit Holder pertaining to transactions by such Trading Permit Holder or any such affiliate for its own account in U.S. Treasury bills, notes and/or bonds and exchange-traded and over-the-counter options, futures and options on futures thereon, as may be called for under the Rules or as may be requested in the course of any investigation, inspection or other official inquiry by the Exchange. In addition, the provisions of Rule 8.9 governing identification of accounts and reports of orders shall, in the case of Market-Makers in interest rate options, apply to (i) accounts for underlying securities and for exchange-traded and over-the-counter options, futures and options on futures thereon and (ii) orders entered by the Market-Maker for the purchase or sale of underlying securities and for exchange-traded and over-the-counter options, futures and options on futures thereon and opening and closing positions concerning one or more of the foregoing. Any corporate affiliate of a Market-Maker in interest rate options shall maintain and preserve such books, records or other information as may be necessary to comply with this Rule.]

* * * * *

[Rule 28.16. Furnishing of Books, Records and Other Information

No Market-Maker in Corporate Debt Security options shall fail to make available to the Exchange such books, records or other information maintained by or in the possession of such Trading Permit Holder or any corporate affiliate of such Trading Permit Holder pertaining to transactions by such Trading Permit Holder or any such affiliate for its own account in Corporate Debt Securities or in Corporate Debt Security options as may be called for under the Rules or as may be requested in the course of any investigation, any inspection or other official inquiry by the Exchange. In addition, the provisions of Rule 8.9 governing identification of accounts and reports of orders shall, in the case of Market-Makers in Corporate Debt Security options, apply to (i) accounts for Corporate Debt Securities deliverable under the terms of the option contracts involved and Corporate Debt Security options trading; and (ii) orders entered by the Market-Maker for the purchase or sale of Corporate Debt Securities deliverable under the terms of the options contracts involved and options on Corporate Debt Securities and opening and closing positions therein.

... Interpretations and Policies:

.01 Any corporate affiliate of a Market-Maker in Corporate Debt Security options shall maintain and preserve such books, records or other information as may be necessary to comply with Rule 28.16.

Rule 28.16 and Interpretation and Policy .01 to Rule 28.16 supplement Rules 8.9 and 15.1 and the Interpretations and Policies thereunder.]

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EXHIBIT 5B

(additions are underlined; deletions are [bracketed])

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Rules of Cboe Exchange, Inc.

(Effective October 7, 2019)

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CHAPTER 7. REGULATORY RECORDS, REPORTS, AND AUDITS

SECTION A. GENERAL

Rule 7.1. Maintenance, Retention and Furnishing of Books, Records and Other Information

- (a) General. Each Trading Permit Holder shall make, keep current and preserve such books and records as the Exchange may prescribe and as may be prescribed by the Exchange Act as though such Trading Permit Holder were a broker or dealer registered pursuant to Section 15 of such Act. No Trading Permit Holder shall refuse to make available to the Exchange such books, records or other information as may be called for under the Rules or as may be requested in connection with an investigation by the Exchange. Trading Permit Holders must comply with all applicable recordkeeping and reporting requirements under the Rules.
- (b) Stock Transaction Records. Each TPH organization that clears stock transactions and for which the Exchange is the DEA shall maintain records of short stock positions in all customer and proprietary firm accounts for securities listed on a United States registered national securities exchange or for securities whose bids and offers are reported on the automated quotation system operated by the National Association of Securities Dealers, Inc. ("NASD"). Each such Trading Permit Holder that is not required to report short interest data to another stock exchange or to the NASD as a result of being a Trading Permit Holder of such organization shall report these short stock positions to either a stock exchange or to the NASD, as the Exchange so directs. The form, manner, and time of such report shall be specified by the appropriate exchange or the NASD.
- (c) Non-U.S. Currency Derivatives Market-Maker Records. In addition to the existing obligations under the Rules regarding the maintenance and production of books and records, a Market-Maker in non-U.S. currency, non-U.S. currency options, futures or options on futures on such currency, or any other derivatives based on such currency, shall make available to the Exchange such books, records or other information pertaining to transactions in non-U.S. currency and the applicable non-U.S. currency, non-U.S. currency options, futures or options on futures on such currency, or any other derivatives on such currency, as may be requested by the Exchange.
- (d) Commodity Pool Unit Options Market-Maker Records. In addition to the existing obligations under the Rules regarding the maintenance and production of books and records, a Market-

Maker in options on Commodity Pool Units, shall make available to the Exchange such books, records or other information pertaining to transactions in the applicable physical commodity, physical commodity options, commodity futures contracts, options on commodity futures contracts, or any other derivatives on such commodity, as may be requested by the Exchange.

- (e) Corporate Debt Security Options Market-Makers. No Market-Maker in Corporate Debt Security options shall fail to make available to the Exchange such books, records or other information maintained by or in the possession of such Trading Permit Holder or any corporate affiliate of such Trading Permit Holder pertaining to transactions by such Trading Permit Holder or any such affiliate for its own account in Corporate Debt Securities or in Corporate Debt Security options as may be called for under the Rules or as may be requested in the course of any investigation, any inspection or other official inquiry by the Exchange. Any corporate affiliate of a Market-Maker in Corporate Debt Security options shall maintain and preserve such books, records or other information as may be necessary to comply with this paragraph (e) and Rule 7.6(d).
- (f) Government Securities Options Market-Makers. No Market-Maker in Government securities options shall fail to make available to the Exchange such books, records or other information maintained by or in the possession of such Trading Permit Holder or any corporate affiliate of such Trading Permit Holder pertaining to transactions by such Trading Permit Holder or any such affiliate for its own account in Government securities, Government securities futures or in Government securities options as may be called for under the Rules or as may be requested in the course of any investigation, any inspection or other official inquiry by the Exchange. Any corporate affiliate of a Market-Maker in Government securities options shall maintain and preserve such books, records or other information as may be necessary to comply with this paragraph (f) and Rule 7.6(e)
- (g) Interest Rate Options Market-Makers. No Market-Maker in interest rate options shall fail to make available to the Exchange such books, records or other information maintained by or in the possession of such Trading Permit Holder or any corporate affiliate of such Trading Permit Holder pertaining to transactions by such Trading Permit Holder or any such affiliate for its own account in U.S. Treasury bills, notes and/or bonds and exchange-traded and over-the-counter options, futures and options on futures thereon, as may be called for under the Rules or as may be requested in the course of any investigation, inspection or other official inquiry by the Exchange. Any corporate affiliate of a Market-Maker in interest rate options shall maintain and preserve such books, records or other information as may be necessary to comply with this paragraph (g) and Rule 7.6(f).

Rule 7.2. Reports of Uncovered Short Positions

Upon request of the Exchange, each Trading Permit Holder shall submit to the Exchange a report of the total uncovered short positions in each option contract of a class dealt in on the Exchange showing: (a) positions carried by such Trading Permit Holder for its own account and (b) positions carried by such Trading Permit Holder for the accounts of customers; provided that the Trading Permit Holders shall not report positions carried for the accounts of other Trading Permit Holders where such other Trading Permit Holders report the positions themselves. Such

report shall be submitted not later than the second business day following the date the request is made.

Rule 7.3. Financial Reports

Each Trading Permit Holder shall submit to the Exchange answers to financial questionnaires, reports of income and expenses and additional financial information in the type, form, manner and time prescribed by the Exchange. Trading Permit Holders may be subject to fines pursuant to Rule 13.15(g)(2) for violations of this Rule.

- (a) Net Capital Computing. Trading Permit Holders who are net capital computing must file electronically with the Exchange any required monthly and quarterly FOCUS Reports utilizing the system or software prescribed by the Exchange, which will be announced via Regulatory Circular.
- (b) *Not Net Capital Computing*. Trading permit Holders who file an annual FOCUS Report and who are not net capital computing must file electronically with the Exchange the annual FOCUS Report and Schedule 1 utilizing the system or software prescribed by the Exchange, which will be announced via Regulatory Circular.

Rule 7.4. Audits

- (a) Annual Audit. Each TPH organization approved to do business with the public in accordance with Chapter 9 of the Rules and each registered Market-Maker shall file a report of its financial condition as of a date within each calendar year prepared in accordance with the requirements of SEC Rule 17a-5 and Form X-17A-5 and containing the information called for by that form. The report of each Trading Permit Holder approved to do business with the public shall be certified by an independent public accountant, and on or before January 10 of each year, each such Trading Permit Holder shall notify the Exchange of the name of the independent public accountant appointed for that year and the date as of which the report will be made. Such report of financial condition, together with answers to an Exchange financial questionnaire based upon the report, shall be filed with the Exchange not later than 60 days after the date as of which the financial condition of the Trading Permit Holder is reported, or such other period as the Exchange may individually require. Any such Trading Permit Holder may file in lieu of the report required by this Rule a copy of any financial statement which he is, or has been required to file with any other national securities exchange or national securities association of which he is a member, or with any agency of any State as a condition of doing business in securities therein, and which is acceptable to the Exchange as containing substantially the same information as Form X-17A-5.
- (b) Additional Audits. In addition to the annual report required of certain Trading Permit Holders pursuant to paragraph (a) of this Rule, the Exchange may require any Trading Permit Holder to cause an audit of its financial condition to be made by an independent public accountant in accordance with the audit requirements of SEC Form X-17A-5 as of the date of an answer to a financial questionnaire, and to file a statement to the effect that such audit has been made and whether it is in accord with the answer to the questionnaire. Such statement shall be signed by two general partners in the case of a TPH organization, by two executive officers in the case of a

Trading Permit Holder corporation or by an individual Trading Permit Holder and it shall be attested by the independent public accountant who certified the audit. The original report of the audit signed by the independent public accountant shall be retained as part of the books and records of the Trading Permit Holder.

Rule 7.5. Automated Submission of Trading Data

A Trading Permit Holder or TPH organization shall submit the trade data elements specified below in such automated format as may be prescribed by the Exchange from time to time, in regard to such transaction or transactions that are the subject of a particular request for information made by the Exchange:

- (a) if the transaction was a proprietary transaction effected or caused to be effected by the Trading Permit Holder or TPH organization for any account in which such Trading Permit Holder or TPH organization, or any member, allied member, approved person, partner, officer, director, or employee thereof, is directly or indirectly interested, such Trading Permit Holder or TPH organization shall submit or cause to be submitted the following information:
 - (1) Clearing house number, or alpha symbol as used by the Trading Permit Holder or the TPH organization submitting the data;
 - (2) Clearing house number(s), or alpha symbol(s) as may be used from time to time, of the Trading Permit Holder(s) or TPH organization(s) on the opposite side of the transaction;
 - (3) Identifying symbol assigned to the security and where applicable for options the month and series symbols;
 - (4) Date transaction was executed;
 - (5) Number of option contracts for each specific transaction and whether each transaction was an opening or closing purchase or sale; and where applicable the number of shares traded or held by accounts for which option data is submitted; and where applicable the number of shares for each specific transaction and whether each transaction was a purchase, sale or short sale;
 - (6) Transaction price;
 - (7) Account number; and
 - (8) Market center where transaction was executed.
- (b) If the transaction was effected or caused to be effected by the TPH organization for any customer account, such TPH organization shall submit or cause to be submitted the following information:
 - (1) Data elements in subparagraphs (a)(1) through (8) above;

- (2) Customer name, address(es), branch office number, registered representative number, whether order was solicited or unsolicited, date account opened and employer name and the tax identification number(s); and
- (3) If the transaction was effected for a Trading Permit Holder broker-dealer customer, whether the broker-dealer was acting as a principal or agent on the transaction or transactions that are the subject of the Exchange's request.
- (c) In addition to the above trade data elements, a Trading Permit Holder or TPH organization shall submit such other information in such automated format as may be prescribed by the Exchange, as may from time to time be required.
- (d) The Exchange may grant exceptions, in such cases and for such time periods as it deems appropriate, from the requirement that the data elements prescribed in paragraphs (a) and (b) above be submitted to the Exchange in an automated format.

Rule 7.6. Securities Accounts and Orders of Market-Makers

- (a)-(c) No change.
- (d) Corporate Debt Security Options Market-Makers. In the case of Market-Makers in Corporate Debt Security options, paragraphs (a) and (b) above also apply to (1) accounts for Corporate Debt Securities deliverable under the terms of the option contracts involved and Corporate Debt Security options trading; and (2) orders entered by the Market-Maker for the purchase or sale of Corporate Debt Securities deliverable under the terms of the options contracts involved and options on Corporate Debt Securities and opening and closing positions therein.
- (e) Government Securities Options Market-Makers. In the case of Market-Makers in Government securities options, paragraphs (a) and (b) above also apply to (1) accounts for Government securities deliverable under the terms of the option contracts involved, Government securities futures, options on Government securities futures and Government securities options trading, and (2) orders entered by the Market-Maker for the purchase or sale of Government securities deliverable under the terms of the options contracts involved, Government securities futures, options on Government securities futures, options on Government securities and opening and closing positions therein.
- (f) Interest Rate Options Market-Makers. In the case of Market-Makers in interest rate options, paragraphs (a) and (b) above also apply to (1) accounts for underlying securities and for exchange-traded and over-the-counter options, futures and options on futures thereon and (2) orders entered by the Market-Maker for the purchase or sale of underlying securities and for exchange-traded and over-the-counter options, futures and options on futures thereon and opening and closing positions concerning one or more of the foregoing.

Rule 7.7. Risk Analysis of Market-Maker Accounts

(a) Each TPH organization which clears or guarantees the transactions of options Market-Makers pursuant to Rule 3.61, shall establish and maintain written procedures for assessing and

monitoring the potential risks to the TPH organization's capital over a specified range of possible market movements of positions maintained in such options Market-Maker accounts and such related accounts as the Exchange shall from time to time direct. Current procedures shall be filed and maintained with the Exchange. The procedures shall specify the computations to be made, the frequency of computations, the records to be reviewed and maintained and the position(s) within the organization responsible for the risk function.

- (b) Upon direction by the Exchange, each affected TPH organization shall provide to the Exchange such information as the Exchange may reasonably require with respect to the TPH organization's risk analysis for any or all of its options Market-Maker accounts.
- (c) Each affected TPH organization shall at a minimum assess and monitor its own potential risk of loss from options Market-Maker accounts each business day as of the close of business the prior day through use of an Exchange approved computerized risk analysis program. The program shall comply with at least the minimum standards specified below and such other standards as from time to time may be prescribed by the Exchange in written memoranda to all affected TPH organizations:
 - (1) The estimated loss to the Clearing TPH organization for each Market-Maker account (potential account deficit) shall be determined given the impact of broad market movements in reasonable intervals over a range from negative 15% to positive 15%.
 - (2) The TPH organization shall calculate volatility using a method approved by the Exchange, with volatility updated at least weekly. The program must have the capability of expanding volatility when projecting losses throughout the range of broad market movements.
 - (3) Options prices shall be estimated through use of recognized options pricing models such as, but not limited to, Black-Scholes and Cox-Ross-Rubinstein.
 - (4) At a minimum, written reports shall be generated which describe for each market scenario: the projected loss per options class by account; the projected total loss per options class for all accounts; the projected deficits per account and in aggregate.

Rule 7.8. Risk Analysis of Portfolio Margin Accounts

- (a) Each TPH organization that maintains any portfolio margin accounts for customers shall establish and maintain a comprehensive written risk analysis methodology for assessing and monitoring the potential risk to the TPH organization's capital over a specified range of possible market movements of positions maintained in such accounts. The risk analysis methodology shall specify the computations to be made, the frequency of computations, the records to be reviewed and maintained, and the person(s) within the organization responsible for the risk function. This risk analysis methodology must be filed with the TPH organization's DEA and submitted to the SEC prior to the implementation of portfolio margining.
- (b) Upon direction by the Exchange each affected TPH organization shall provide to the Exchange such information as the Exchange may reasonably require with respect to the TPH

organization's risk analysis for any or all of the portfolio margin accounts it maintains for customers.

- (c) In conducting the risk analysis of portfolio margin accounts required by this Rule 7.8, each TPH organization shall include in the written risk analysis methodology required pursuant to paragraph (a) above procedures and guidelines for:
 - (1) obtaining and reviewing the appropriate customer account documentation and financial information necessary for assessing the amount of credit extended to customers;
 - (2) the determination, review and approval of credit limits to each customer, and across all customers, utilizing a portfolio margin account;
 - (3) monitoring credit risk exposure to the TPH organization from portfolio margin accounts, on both an intra-day and end of day basis, including the type, scope and frequency of reporting to senior management;
 - (4) the use of stress testing of portfolio margin accounts in order to monitor market risk exposure from individual accounts and in the aggregate;
 - (5) the regular review and testing of these risk analysis procedures by an independent unit such as internal audit or other comparable group;
 - (6) managing the impact of credit extension on the TPH organization's overall risk exposure;
 - (7) the appropriate response by management when limits on credit extensions have been exceeded;
 - (8) determining the need to collect additional margin from a particular eligible participant, including whether that determination was based upon the creditworthiness of the participant and/or the risk of the eligible position(s); and
 - (9) monitoring the credit exposure resulting from concentrated positions within both individual portfolio margin accounts and across all portfolio margin accounts.

Moreover, management must periodically review, in accordance with written procedures, the TPH organization's credit extension activities for consistency with these guidelines. Management must periodically determine if the data necessary to apply this Rule 7.8 is accessible on a timely basis and information systems are available to capture, monitor, analyze and report relevant data.

Rule 7.9. Regulatory Cooperation

(a) The Exchange may enter into agreements with domestic and foreign self-regulatory organizations, associations and contract markets, the regulators of such markets, and the Public Company Accounting Oversight Board, which provide for the exchange of information and other

forms of mutual assistance for market surveillance, investigative, enforcement and other regulatory purposes.

- (b) The Exchange may enter into one or more agreements with another self-regulatory organization to provide regulatory services to the Exchange to assist the Exchange in discharging its obligations under Section 6 and Section 19(g) of the Exchange Act. Any action taken by another self-regulatory organization, or its employees or authorized agents, acting on behalf of the Exchange pursuant to a regulatory services agreement shall be deemed to be an action taken by the Exchange; provided, however, that nothing in this provision shall affect the oversight of such other self-regulatory organization by the Commission. Notwithstanding the fact that the Exchange may enter into one or more regulatory services agreements, the Exchange shall retain ultimate legal responsibility for, and control of, its self-regulatory responsibilities, and any such regulatory services agreement shall so provide.
- (c) So long as a Trading Permit Holder or person associated with a Trading Permit Holder remains subject to the disciplinary jurisdiction of the Exchange as set forth in Rule 13.1, such Trading Permit Holder or person associated with a Trading Permit Holder shall be obligated to furnish testimony, documentary evidence or other information to the full extent provided in Rule 13.2(b), whether or not an investigation has been initiated by the Exchange against any person pursuant to Rule 13.2(a), if such information is requested by the Exchange in connection with any inquiry resulting from an agreement entered into by the Exchange pursuant to paragraphs (a) or (b) of this Rule. Whenever information is requested by the Exchange pursuant to this Rule, the Trading Permit Holder or person associated with a Trading Permit Holder from whom the information is requested shall have the same rights and procedural protections in responding to such request as such person would have in the case of any other request for information initiated by the Exchange pursuant to Rule 13.2(b).

Rule 7.10. Fingerprint-Based Background Checks of Exchange Directors, Officers, Employees and Others

- (a) In order to enhance the security of the facilities, systems, data, and records of the Exchange (collectively, "facilities and records"), the Exchange conducts fingerprint-based criminal records checks of (1) directors, officers and employees of the Exchange, and (2) temporary personnel, independent contractors, consultants, vendors and service providers who have or are anticipated to have access to its facilities and records (collectively, "contractors"). The Exchange also conducts fingerprint-based criminal records checks of Exchange director candidates that are not already serving on the Exchange's Board before they are formally nominated and of employee candidates after an offer of employment has been made by the Exchange. The Exchange may choose to not obtain fingerprints from, or to seek fingerprint-based information with respect to, any contractor due to that contractor's limited, supervised, or restricted access to facilities and records, or the nature or location of his or her work or services, or if the contractor's employer conducts fingerprint based criminal records checks of its personnel.
- (b) The Exchange shall submit fingerprints obtained pursuant to this rule to the Attorney General of the United States or his or her designee for identification and processing. The Exchange shall at all times maintain the security of all fingerprints provided to, and all criminal history record

information received from, the Attorney General or his or her designee. The Exchange shall redisseminate fingerprints and criminal history record information only to the extent permitted by applicable law.

- (c) The Exchange shall evaluate information received from the Attorney General or his or her designee and otherwise administer this rule in accordance with Exchange fingerprint procedures as in effect from time to time and the provisions of applicable law. Fingerprint- based criminal record information that reflects felony or misdemeanor convictions will be a factor in making employment decisions; engaging or retaining any contractors; or permitting any fingerprinted person access to facilities and records.
- (d) Any employee who refuses to submit to fingerprinting will be subject to progressive discipline up to and including the termination of employment. Any person who is given an offer of employment with the Exchange who refuses to submit to fingerprinting will have the offer withdrawn. A contractor who refuses to submit to fingerprinting will be denied access to facilities and records.

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SECTION B. CONSOLIDATED AUDIT TRAIL (CAT) COMPLIANCE RULE

Rule 7.20. Definitions

For purposes of this Section B to Chapter 7:

- (a) "Account Effective Date" means:
 - (1) with regard to those circumstances in which an Industry Member has established a trading relationship with an institution but has not established an account with that institution:
 - (A) when the trading relationship was established prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, either
 - (i) the date the relationship identifier was established within the Industry Member;
 - (ii) the date when trading began (i.e., the date the first order was received) using the relevant relationship identifier; or
 - (iii) if both dates are available, the earlier date will be used to the extent that the dates differ; or
 - (B) when the trading relationship was established on or after November 15, 2018 for Industry Members other than Small Industry Members, or on or after November 15, 2019 for Small Industry Members, the date the Industry Member

established the relationship identifier, which would be no later than the date the first order was received;

- (2) where an Industry Member changes back office providers or clearing firms prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, the date an account was established at the relevant Industry Member, either directly or via transfer;
- (3) where an Industry Member acquires another Industry Member prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, the date an account was established at the relevant Industry Member, either directly or via transfer;
- (4) where there are multiple dates associated with an account established prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, the earliest available date; or
- (5) with regard to Industry Member proprietary accounts established prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members:
 - (A) the date established for the account in the Industry Member or in a system of the Industry Member or
 - (B) the date when proprietary trading began in the account (i.e., the date on which the first orders were submitted from the account).

With regard to subparagraphs (a)(2) through (5), the Account Effective Date will be no later than the date trading occurs at the Industry Member or in the Industry Member's system.

- (b) "Active Accounts" means an account that has had activity in Eligible Securities within the last six months.
- (c) "Allocation Report" means a report made to the Central Repository by an Industry Member that identifies the Firm Designated ID for any account(s), including subaccount(s), to which executed shares are allocated and provides the security that has been allocated, the identifier of the firm reporting the allocation, the price per share of shares allocated, the side of shares allocated, the number of shares allocated to each account, and the time of the allocation; provided, for the avoidance of doubt, any such Allocation Report shall not be required to be linked to particular orders or executions.
- (d) "Business Clock" means a clock used to record the date and time of any Reportable Event required to be reported under this Section B.
- (e) "CAT" means the consolidated audit trail contemplated by SEC Rule 613.

- (f) "CAT NMS Plan" means the National Market System Plan Governing the Consolidated Audit Trail, as amended from time to time.
- (g) "CAT-Order-ID" means a unique order identifier or series of unique order identifiers that allows the Central Repository to efficiently and accurately link all Reportable Events for an order, and all orders that result from the aggregation or disaggregation of such order.
- (h) "CAT Reporting Agent" means a Data Submitter that is a third party that enters into an agreement with an Industry Member pursuant to which the CAT Reporting Agent agrees to fulfill such Industry Member's reporting obligations under this Section B.
- (i) "Central Repository" means the repository responsible for the receipt, consolidation, and retention of all information reported to the CAT pursuant to SEC Rule 613 and the CAT NMS Plan.
- (j) "Compliance Threshold" has the meaning set forth in Rule 7.30(d).
- (k) "Customer" means:
 - (1) the account holder(s) of the account at an Industry Member originating the order; and
 - (2) any person from whom the Industry Member is authorized to accept trading instructions for such account, if different from the account holder(s).
- (1) "Customer Account Information" shall include, but not be limited to, account number, account type, customer type, date account opened, and large trader identifier (if applicable); except, however, that:
 - (1) in those circumstances in which an Industry Member has established a trading relationship with an institution but has not established an account with that institution, the Industry Member will:
 - (A) provide the Account Effective Date in lieu of the "date account opened":
 - (B) provide the relationship identifier in lieu of the "account number"; and
 - (C) identify the "account type" as a "relationship"; or
 - (2) in those circumstances in which the relevant account was established prior to November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members, and no "date account opened" is available for the account, the Industry Member will provide the Account Effective Date in the following circumstances:
 - (A) where an Industry Member changes back office providers or clearing firms and the date account opened is changed to the date the account was opened on the new back office/clearing firm system;

- (B) where an Industry Member acquires another Industry Member and the date account opened is changed to the date the account was opened on the post-merger back office/clearing firm system;
- (C) where there are multiple dates associated with an account in an Industry Member's system, and the parameters of each date are determined by the individual Industry Member; and
- (D) where the relevant account is an Industry Member proprietary account.
- (m) "Customer Identifying Information" means information of sufficient detail to identify a Customer, including, but not limited to:
 - (1) with respect to individuals: name, address, date of birth, individual tax payer identification number ("ITIN")/social security number ("SSN"), individual's role in the account (e.g., primary holder, joint holder, guardian, trustee, person with the power of attorney); and
 - (2) with respect to legal entities: name, address, Employer Identification Number ("EIN")/Legal Entity Identifier ("LEI") or other comparable common entity identifier, if applicable; provided, however, that an Industry Member that has an LEI for a Customer must submit the Customer's LEI in addition to other information of sufficient detail to identify a Customer.
- (n) "Data Submitter" means any person that reports data to the Central Repository, including national securities exchanges, national securities associations, broker-dealers, the SIPs for the CQS, CTA, UTP Plans and the Plan for Reporting of Consolidated Options Last Sale Reports and Quotation Information ("OPRA"), and certain other vendors or third parties that may submit data to the Central Repository on behalf of Industry Members.
- (o) "Eligible Security" includes (1) all NMS Securities and (2) all OTC Equity Securities.
- (p) "Error Rate" means the percentage of Reportable Events collected by the Central Repository in which the data reported does not fully and accurately reflect the order event that occurred in the market.
- (q) "Firm Designated ID" means a unique identifier for each trading account designated by Industry Members for purposes of providing data to the Central Repository, where each such identifier is unique among all identifiers from any given Industry Member for each business date.
- (r) "Industry Member" means a member of a national securities exchange or a member of a national securities association.
- (s) "Industry Member Data" has the meaning set forth in Rule 7.22(a)(2).
- (t) "Initial Plan Processor" means the first Plan Processor selected by the Operating Committee in accordance with SEC Rule 613, Section 6.1 of the CAT NMS Plan and the National Market

- System Plan Governing the Process for Selecting a Plan Processor and Developing a Plan for the Consolidated Audit Trail.
- (u) "Listed Option" or "Option" has the meaning set forth in Rule 600(b)(35) of Regulation NMS.
- (v) "Manual Order Event" means a non-electronic communication of order-related information for which Industry Members must record and report the time of the event.
- (w) "Material Terms of the Order" includes: the NMS Security or OTC Equity Security symbol; security type; price (if applicable); size (displayed and non-displayed); side (buy/sell); order type; if a sell order, whether the order is long, short, short exempt; open/close indicator (except on transactions in equities); time in force (if applicable); if the order is for a Listed Option, option type (put/call), option symbol or root symbol, underlying symbol, strike price, expiration date, and open/close (except on market maker quotations); and any special handling instructions.
- (x) "NMS Security" means any security or class of securities for which transaction reports are collected, processed, and made available pursuant to an effective transaction reporting plan, or an effective national market system plan for reporting transactions in Listed Options.
- (y) "NMS Stock" means any NMS Security other than an option.
- (z) "Operating Committee" means the governing body of the CAT NMS, LLC designated as such and described in Article IV of the CAT NMS Plan.
- (aa) "Options Market Maker" means a broker-dealer registered with an exchange for the purpose of making markets in options contracts traded on the exchange.
- (bb) "Order" or "order", with respect to Eligible Securities, shall include:
 - (1) any order received by an Industry Member from any person;
 - (2) any order originated by an Industry Member; or
 - (3) any bid or offer.
- (cc) "OTC Equity Security" means any equity security, other than an NMS Security, subject to prompt last sale reporting rules of a registered national securities association and reported to one of such association's equity trade reporting facilities.
- (dd) "Participant" means each Person identified as such in Exhibit A of the CAT NMS Plan, as amended, in such Person's capacity as a Participant in CAT NMS, LLC.
- (ee) "Person" means any individual, partnership, limited liability company, corporation, joint venture, trust, business trust, cooperative or association and any heirs, executors, administrators, legal representatives, successors and assigns of such Person where the context so permits.

- (ff) "Plan Processor" means the Initial Plan Processor or any other Person selected by the Operating Committee pursuant to SEC Rule 613 and Sections 4.3(b)(i) and 6.1 of the CAT NMS Plan, and with regard to the Initial Plan Processor, the National Market System Plan Governing the Process for Selecting a Plan Processor and Developing a Plan for the Consolidated Audit Trail, to perform the CAT processing functions required by SEC Rule 613 and set forth in the CAT NMS Plan.
- (gg) "Received Industry Member Data" has the meaning set forth in Rule 7.22(a)(2).
- (hh) "Recorded Industry Member Data" has the meaning set forth in Rule 7.22(a)(1).
- (ii) "Reportable Event" includes, but is not limited to, the original receipt or origination, modification, cancellation, routing, execution (in whole or in part) and allocation of an order, and receipt of a routed order.
- (jj) "SRO" means any self-regulatory organization within the meaning of Section 3(a)(26) of the Exchange Act.
- (kk) "SRO-Assigned Market Participant Identifier" means an identifier assigned to an Industry Member by an SRO or an identifier used by a Participant.
- (ll) "Small Industry Member" means an Industry Member that qualifies as a small broker-dealer as defined in Rule 0-10(c) under the Exchange Act.
- (mm) "Trading Day" shall have the meaning as is determined by the Operating Committee. For the avoidance of doubt, the Operating Committee may establish different Trading Days for NMS Stocks (as defined in SEC Rule 600(b)(47)), Listed Options, OTC Equity Securities, and any other securities that are included as Eligible Securities from time to time.

Rule 7.21. Clock Synchronization

(a) Clock Synchronization.

- (1) Each Industry Member shall synchronize its Business Clocks, other than such Business Clocks used solely for Manual Order Events or used solely for the time of allocation on Allocation Reports, at a minimum to within a 50 millisecond tolerance of the time maintained by the atomic clock of the National Institute of Standards and Technology ("NIST"), and maintain such synchronization.
- (2) Each Industry Member shall synchronize (A) its Business Clocks used solely for Manual Order Events and (B) its Business Clocks used solely for the time of allocation on Allocation Reports at a minimum to within a one second tolerance of the time maintained by the NIST atomic clock, and maintain such synchronization.
- (3) The tolerance for subparagraphs (a)(1) and (2) of this Rule includes all of the following:

- (A) the difference between the NIST atomic clock and the Industry Member's Business Clock;
- (B) the transmission delay from the source; and
- (C) the amount of drift of the Industry Member's Business Clock.
- (4) Business Clocks must be synchronized every business day before the open of each trading session to ensure that time stamps for Reportable Events are accurate. To maintain clock synchronization, Business Clocks must be checked against the NIST atomic clock and re-synchronized, as necessary, throughout the day.
- (b) *Documentation*. Industry Members must document and maintain their synchronization procedures for Business Clocks. Industry Members must keep a log of the times when they synchronize their Business Clocks and the results of the synchronization process. This log should include notice of any time a Business Clock drifts more than the applicable tolerance specified in paragraph (a) of this Rule. Such log must include results for a period of not less than five years ending on the then current date, or for the entire period for which the Industry Member has been required to comply with this Rule if less than five years.
- (c) Certification. Each Industry Member shall certify to the Exchange that its Business Clocks satisfy the synchronization requirements set forth in paragraph (a) of this Rule periodically in accordance with the certification schedule established by the Operating Committee pursuant to the CAT NMS Plan.
- (d) *Violation Reporting*. Each Industry Member with Business Clocks must report to the Plan Processor and the Exchange violations of paragraph (a) of this Rule pursuant to the thresholds set by the Operating Committee pursuant to the CAT NMS Plan.

Rule 7.22. Industry Member Data Reporting

- (a) Recording and Reporting Industry Member Data.
 - (1) Subject to subparagraph (a)(3) below, each Industry Member shall record and electronically report to the Central Repository the following details for each order and each Reportable Event, as applicable ("Recorded Industry Member Data"), in the manner prescribed by the Operating Committee pursuant to the CAT NMS Plan:
 - (A) for original receipt or origination of an order:
 - (i) Firm Designated ID(s) for each Customer;
 - (ii) CAT-Order-ID;
 - (iii) SRO-Assigned Market Participant Identifier of the Industry Member receiving or originating the order;
 - (iv) date of order receipt or origination;

- (v) time of order receipt or origination (using time stamps pursuant to Rule 7.25); and
- (vi) Material Terms of the Order;
- (B) for the routing of an order:
 - (i) CAT-Order-ID;
 - (ii) date on which the order is routed;
 - (iii) time at which the order is routed (using time stamps pursuant to Rule 7.25);
 - (iv) SRO-Assigned Market Participant Identifier of the Industry Member routing the order;
 - (v) SRO-Assigned Market Participant Identifier of the Industry Member or Participant to which the order is being routed;
 - (vi) if routed internally at the Industry Member, the identity and nature of the department or desk to which the order is routed; and
 - (vii) Material Terms of the Order;
- (C) for the receipt of an order that has been routed, the following information:
 - (i) CAT-Order-ID;
 - (ii) date on which the order is received;
 - (iii) time at which the order is received (using time stamps pursuant to Rule 7.25);
 - (iv) SRO-Assigned Market Participant Identifier of the Industry Member receiving the order;
 - (v) SRO-Assigned Market Participant Identifier of the Industry Member or Participant routing the order; and
 - (vi) Material Terms of the Order;
- (D) if the order is modified or cancelled:
 - (i) CAT-Order-ID;
 - (ii) date the modification or cancellation is received or originated;

- (iii) time at which the modification or cancellation is received or originated (using time stamps pursuant to Rule 7.25);
- (iv) price and remaining size of the order, if modified;
- (v) other changes in the Material Terms of the Order, if modified; and
- (vi) whether the modification or cancellation instruction was given by the Customer or was initiated by the Industry Member;
- (E) if the order is executed, in whole or in part:
 - (i) CAT-Order-ID;
 - (ii) date of execution;
 - (iii) time of execution (using time stamps pursuant to Rule 7.25);
 - (iv) execution capacity (principal, agency or riskless principal);
 - (v) execution price and size;
 - (vi) SRO-Assigned Market Participant Identifier of the Industry Member executing the order; and
 - (vii) whether the execution was reported pursuant to an effective transaction reporting plan or OPRA; and
- (F) other information or additional events as may be prescribed pursuant to the CAT NMS Plan.
- (2) Subject to subparagraph (a)(3) below, each Industry Member shall record and report to the Central Repository the following, as applicable ("Received Industry Member Data" and, collectively with the information referred to in subparagraph (a)(1), "Industry Member Data")), in the manner prescribed by the Operating Committee pursuant to the CAT NMS Plan:
 - (A) if the order is executed, in whole or in part:
 - (i) Allocation Report;
 - (ii) SRO-Assigned Market Participant Identifier of the clearing broker or prime broker, if applicable; and
 - (iii) CAT-Order-ID of any contra-side order(s);
 - (B) if the trade is cancelled, a cancelled trade indicator; and

- (C) for original receipt or origination of an order, the Firm Designated ID for the relevant Customer, and in accordance with Rule 7.23, Customer Account Information and Customer Identifying Information for the relevant Customer.
- (3) Each Industry Member that is an Options Market Maker is not required to report to the Central Repository the Industry Member Data regarding the routing, modification or cancellation of its quotes in Listed Options. Each Industry Member that is an Options Market Maker shall report to the Exchange the time at which its quote in a Listed Option is sent to the Exchange (and, if applicable, any subsequent quote modification time and/or cancellation time when such modification or cancellation is originated by the Options Market Maker).

(b) Timing of Recording and Reporting.

- (1) Each Industry Member shall record Recorded Industry Member Data contemporaneously with the applicable Reportable Event.
- (2) Each Industry Member shall report:
 - (A) Recorded Industry Member Data to the Central Repository by 8:00 a.m. on the Trading Day following the day the Industry Member records such Recorded Industry Member Data; and
 - (B) Received Industry Member Data to the Central Repository by 8:00 a.m. on the Trading Day following the day the Industry Member receives such Received Industry Member Data.
- (3) Industry Members may, but are not required to, voluntarily report Industry Member Data prior to the applicable 8:00 a.m. deadline.

(c) Applicable Securities.

- (1) Each Industry Member shall record and report to the Central Repository the Industry Member Data as set forth in paragraph (a) of this Rule for each NMS Security registered or listed for trading on an exchange or admitted to unlisted trading privileges on an exchange.
- (2) Each Industry Member shall record and report to the Central Repository the Industry Member Data as set forth in paragraph (a) of this Rule for each Eligible Security for which transaction reports are required to be submitted to a national securities association.

(d) Security Symbology.

(1) For each exchange-listed Eligible Security, each Industry Member shall report Industry Member Data to the Central Repository using the symbology format of the exchange listing the security.

- (2) For each Eligible Security that is not exchange-listed, each Industry Member shall report Industry Member Data to the Central Repository using such symbology format as approved by the Operating Committee pursuant to the CAT NMS Plan.
- (e) *Error Correction*. For each Industry Member for which errors in Industry Member Data submitted to the Central Repository have been identified by the Plan Processor or otherwise, such Industry Member shall submit corrected Industry Member Data to the Central Repository by 8:00 a.m. on T+3.

Rule 7.23. Customer Information Reporting

- (a) *Initial Set of Customer Information*. Each Industry Member shall submit to the Central Repository the Firm Designated ID, Customer Account Information and Customer Identifying Information for each of its Customers with an Active Account prior to such Industry Member's commencement of reporting to the Central Repository and in accordance with the deadlines set forth in Rule 7.28.
- (b) *Daily Updates to Customer Information*. Each Industry Member shall submit to the Central Repository any updates, additions or other changes to the Firm Designated ID, Customer Account Information and Customer Identifying Information for each of its Customers with an Active Account on a daily basis.
- (c) Periodic Updates to Complete Set of Customer Information. On a periodic basis as designated by the Plan Processor and approved by the Operating Committee, each Industry Member shall submit to the Central Repository a complete set of Firm Designated IDs, Customer Account Information and Customer Identifying Information for each of its Customers with an Active Account.
- (d) *Error Correction*. For each Industry Member for which errors in Firm Designated ID, Customer Account Information and Customer Identifying Information for each of its Customers with an Active Account submitted to the Central Repository have been identified by the Plan Processor or otherwise, such Industry Member shall submit corrected data to the Central Repository by 5:00 p.m. on T+3.

Rule 7.24. Industry Member Information Reporting

Each Industry Member shall submit to the Central Repository information sufficient to identify such Industry Member, including CRD number and LEI, if such LEI has been obtained, prior to such Industry Member's commencement of reporting to the Central Repository and in accordance with the deadlines set forth in Rule 7.28, and keep such information up to date as necessary.

Rule 7.25. Time Stamps

(a) Millisecond Time Stamps.

- (1) Subject to subparagraph (a)(2) and paragraph (b), each Industry Member shall record and report Industry Member Data to the Central Repository with time stamps in milliseconds.
- (2) Subject to paragraph (b), to the extent that any Industry Member's order handling or execution systems utilize time stamps in increments finer than milliseconds, such Industry Member shall record and report Industry Member Data to the Central Repository with time stamps in such finer increment.

(b) One Second Time Stamps/Electronic Order Capture.

- (1) Each Industry Member may record and report Manual Order Events to the Central Repository in increments up to and including one second, provided that each Industry Member shall record and report the time when a Manual Order Event has been captured electronically in an order handling and execution system of such Industry Member (i.e. electronic capture time) in milliseconds; and
- (2) Each Industry Member may record and report the time of Allocation Reports in increments up to and including one second.

Rule 7.26. Clock Synchronization Rule Violation

An Industry Member that engages in a pattern or practice of reporting Reportable Events outside of the required clock synchronization time period as set forth in this Section B without reasonable justification or exceptional circumstances may be considered in violation of this Rule.

Rule 7.27. Connectivity and Data Transmission

- (a) *Data Transmission*. Each Industry Member shall transmit data as required under the CAT NMS Plan to the Central Repository utilizing such format(s) as may be provided by the Plan Processor and approved by the Operating Committee.
- (b) Connectivity. Each Industry Member shall connect to the Central Repository using a secure method(s), including but not limited to private line(s) and virtual private network connection(s).

(c) CAT Reporting Agents.

- (1) Any Industry Member may enter into an agreement with a CAT Reporting Agent pursuant to which the CAT Reporting Agent agrees to fulfill the obligations of such Industry Member under this Section B. Any such agreement shall be evidenced in writing, which shall specify the respective functions and responsibilities of each party to the agreement that are required to effect full compliance with the requirements of this Section B.
- (2) All written documents evidencing an agreement described in subparagraph (c)(1) shall be maintained by each party to the agreement.

(3) Each Industry Member remains primarily responsible for compliance with the requirements of this Section B, notwithstanding the existence of an agreement described in this paragraph.

Rule 7.28. Development and Testing

(a) Development.

- (1) Connectivity and Acceptance Testing.
 - (A) Industry Members (other than Small Industry Members) shall begin connectivity and acceptance testing with the Central Repository no later than August 15, 2018.
 - (B) Small Industry Members shall begin connectivity and acceptance testing with the Central Repository no later than August 15, 2019.
- (2) Reporting Customer and Industry Member Information.
 - (A) Industry Members (other than Small Industry Members) shall begin reporting Customer and Industry Member information, as required by Rules 7.23(a) and 7.24, respectively, to the Central Repository for processing no later than October 15, 2018.
 - (B) Small Industry Members shall begin reporting Customer and Industry Member information, as required by Rules 7.23(a) and 7.24, respectively, to the Central Repository for processing no later than October 15, 2019.

(3) Submission of Order Data.

- (A) Industry Members (other than Small Industry Members).
 - (i) Industry Members (other than Small Industry Members) are permitted, but not required, to submit order data for testing purposes beginning no later than May 15, 2018.
 - (ii) Industry Members (other than Small Industry Members) shall participate in the coordinated and structured testing of order submission, which will begin no later than August 15, 2018.

(B) Small Industry Members

- (i) Small Industry Members are permitted, but not required, to submit order data for testing purposes beginning no later than May 15, 2019.
- (ii) Small Industry Members shall participate in the coordinated and structured testing of order submission, which will begin no later than August 15, 2019.

- (4) Submission of Options Market Maker Quotes. Industry Members are permitted, but not required to, submit Quote Sent Time on Options Market Maker quotes, beginning no later than October 15, 2018.
- (b) *Testing*. Each Industry Member shall participate in testing related to the Central Repository, including any industry-wide disaster recovery testing, pursuant to the schedule established pursuant to the CAT NMS Plan.

Rule 7.29. Recordkeeping

Each Industry Member shall maintain and preserve records of the information required to be recorded under this Section B for the period of time and accessibility specified in SEC Rule 17a-4(b). The records required to be maintained and preserved under this Rule may be immediately produced or reproduced on "micrographic media" as defined in SEC Rule 17a-4(f)(1)(i) or by means of "electronic storage media" as defined in SEC Rule 17a-4(f)(1)(ii) that meet the conditions set forth in SEC Rule 17a-4(f) and be maintained and preserved for the required time in that form.

Rule 7.30. Timely, Accurate and Complete Data

- (a) General. Industry Members are required to record and report data to the Central Repository as required by this Section B in a manner that ensures the timeliness, accuracy, integrity and completeness of such data.
- (b) *LEIs*. Without limiting the requirement set forth in paragraph (a), Industry Members are required to accurately provide the LEIs in their records as required by this Section B and may not knowingly submit inaccurate LEIs to the Central Repository; provided, however, that this requirement does not impose any additional due diligence obligations on Industry Members with regard to LEIs for CAT purposes.
- (c) Compliance with Error Rate. If an Industry Member reports data to the Central Repository with errors such that the error percentage exceeds the maximum Error Rate established by the Operating Committee pursuant to the CAT NMS Plan, then such Industry Member would not be in compliance with this Section B.
- (d) Compliance Thresholds. Each Industry Member shall be required to meet a separate compliance threshold which will be an Industry Member-specific rate that may be used as the basis for further review or investigation into the Industry Member's performance with regard to the CAT (the "Compliance Thresholds"). Compliance Thresholds will compare an Industry Member's error rate to the aggregate Error Rate over a period of time to be defined by the Operating Committee. An Industry Member's performance with respect to its Compliance Threshold will not signify, as a matter of law, that such Industry Member has violated this Section B.

Rule 7.31. Compliance Dates

(a) General. Except as set forth in paragraphs (b) and (c) of this Rule or otherwise set forth in this Section B, the Rules in this Section B are effective.

(b) Clock Synchronization.

- (1) Each Industry Member shall comply with Rule 7.21 with regard to Business Clocks that capture time in milliseconds commencing on or before March 15, 2017.
- (2) Each Industry Member shall comply with Rule 7.21 with regard to Business Clocks that do not capture time in milliseconds commencing on or before February 19, 2018 (pending approval of exemptive relief regarding the compliance date for Business Clocks that do not capture time in milliseconds).

(c) CAT Data Reporting.

- (1) Each Industry Member (other than a Small Industry Member) shall comply with the Rules regarding recording and reporting the Industry Member Data to the Central Repository commencing on or before November 15, 2018.
- (2) Each Industry Member that is a Small Industry Member shall comply with the Rules regarding recording and reporting the Industry Member Data to the Central Repository commencing on or before November 15, 2019.

Rule 7.32. Fee Dispute Resolution

(a) Definitions.

- (1) For purposes of this Rule, the terms "CAT NMS Plan", "Industry Member", "Operating Committee", and "Participant" are defined as set forth in Rule 7.20 (Consolidated Audit Trail (CAT) Compliance Rule Definitions).
- (2) "Subcommittee" means a subcommittee designated by the Operating Committee pursuant to the CAT NMS Plan.
- (3) "CAT Fee" means any fees contemplated by the CAT NMS Plan and imposed on Industry Members pursuant to Exchange Rules.
- (b) Fee Dispute Resolution. Disputes initiated by an Industry Member with respect to CAT Fees charged to such Industry Member, including disputes related to the designated tier and the fee calculated pursuant to such tier, shall be resolved by the Operating Committee, or a Subcommittee designated by the Operating Committee, of the CAT NMS Plan, pursuant to the Fee Dispute Resolution Procedures adopted pursuant to the CAT NMS Plan and set forth in paragraph (c) of this Rule. Decisions on such matters shall be binding on Industry Members, without prejudice to the rights of any such Industry Member to seek redress from the SEC or in any other appropriate forum.

(c) Fee Dispute Resolution Procedures under the CAT NMS Plan.

- (1) Scope of Procedures. These Fee Dispute Resolution Procedures provide the procedure for Industry Members that dispute CAT Fees charged to such Industry Member, including disputes related to the designated tier and the fee calculated pursuant to such tier, to apply for an opportunity to be heard and to have the CAT Fees charged to such Industry Member reviewed.
- (2) Submission and Time Limitation on Application to CAT NMS, LLC ("Company"). An Industry Member that disputes CAT Fees charged to such Industry Member and that desires to have an opportunity to be heard with respect to such disputed CAT Fees shall file a written application with the Company within 15 business days after being notified of such disputed CAT Fees. The application shall identify the disputed CAT Fees, state the specific reasons why the applicant takes exception to such CAT Fees, and set forth the relief sought. In addition, if the applicant intends to submit any additional documents, statements, arguments or other material in support of the application, the same should be so stated and identified.

(3) Procedure Following Applications for Hearing.

- (A) Fee Review Subcommittee. The Company will refer applications for hearing and review promptly to the Subcommittee designated by the Operating Committee pursuant to Section 4.12 of the CAT NMS Plan with responsibility for conducting the reviews of CAT Fee disputes pursuant to these Fee Dispute Resolution Procedures. This Subcommittee will be referred to as the Fee Review Subcommittee. The members of the Fee Review Subcommittee will be subject to the provisions of Section 4.3(d) of the CAT NMS Plan regarding recusal and Conflicts of Interest.
- (B) *Record*. The Fee Review Subcommittee will keep a record of the proceedings.
- (C) Hearings and Documents. The Fee Review Subcommittee will hold hearings promptly. The Fee Review Subcommittee will set a hearing date. The parties to the hearing (as described in subparagraph (c)(4)(A) below) shall furnish the Fee Review Subcommittee with all materials relevant to the proceedings at least 72 hours prior to the date of the hearing. Each party shall have the right to inspect and copy the other party's materials prior to the hearing.

(4) Hearing and Decision.

- (A) *Parties*. The parties to the hearing shall consist of the applicant and a representative of the Company who shall present the reasons for the action taken by the Company that allegedly aggrieved the applicant.
- (B) *Counsel*. The applicant is entitled to be accompanied, represented and advised by counsel at all stages of the proceedings.

- (C) Conduct of Hearing. The Fee Review Subcommittee shall determine all questions concerning the admissibility of evidence and shall otherwise regulate the conduct of the hearing. Each of the parties shall be permitted to make an opening statement, present witnesses and documentary evidence, cross examine opposing witnesses and present closing arguments orally or in writing as determined by the Fee Review Subcommittee. The Fee Review Subcommittee also shall have the right to question all parties and witnesses to the proceeding. The Fee Review Subcommittee shall keep a record of the hearing. The formal rules of evidence shall not apply.
- (D) *Decision*. The Fee Review Subcommittee shall set forth its decision in writing and send the written decision to the parties to the proceeding. Such decisions shall contain the reasons supporting the conclusions of the Fee Review Subcommittee.

(5) Review.

- (A) Petition. The decision of the Fee Review Subcommittee shall be subject to review by the Operating Committee either on its own motion within 20 business days after issuance of the decision or upon written request submitted by the applicant within 15 business days after issuance of the decision. The applicant's petition shall be in writing and specify the findings and conclusions to which the applicant objects, together with the reasons for such objections. Any objection to a decision not specified in writing shall be considered to have been abandoned and may be disregarded. Parties may petition to submit a written argument to the Operating Committee and may request an opportunity to make an oral argument before the Operating Committee. The Operating Committee shall have sole discretion to grant or deny either request.
- (B) Conduct of Review. The Operating Committee shall conduct the review. The review shall be made upon the record and shall be made after such further proceedings, if any, as the Operating Committee may order. Based upon such record, the Operating Committee may affirm, reverse or modify, in whole or in part, the decision of the Fee Review Subcommittee. The decision of the Operating Committee shall be in writing, shall be sent to the parties to the proceeding and shall be final.
- (6) Time Limit for Review. A final decision regarding the disputed CAT Fees by the Operating Committee, or the Fee Review Subcommittee (if there is no review by the Operating Committee), must be provided within 90 days of the date on which the Industry Member filed a written application regarding disputed CAT Fees with the Company pursuant to subparagraph (c)(2) of these Fee Dispute Resolution Procedures. The Operating Committee may extend the 90-day time limit under this subparagraph (c)(6) at its discretion.

(7) Miscellaneous Provisions.

- (A) Service of Notice. Any notices or other documents may be served upon the applicant either personally or by leaving the same at its, his or her place of business or by deposit in the United States post office, postage prepaid, by registered or certified mail, addressed to the applicant at its, his or her last known business or residence address.
- (B) Extension of Certain Time Limits. Any time limits imposed under these Fee Dispute Resolution Procedures for the submission of answers, petitions or other materials may be extended by permission of the Operating Committee. All papers and documents relating to review by the Fee Review Subcommittee or the Operating Committee must be submitted to the Fee Review Subcommittee or Operating Committee, as applicable.
- (8) Agency Review. Decisions on such CAT Fee disputes made pursuant to these Fee Dispute Resolution Procedures shall be binding on Industry Members, without prejudice to the rights of any such Industry Member to seek redress from the SEC or in any other appropriate forum.

(9) Payment of Disputed CAT Fees.

- (A) Timing of Fee Payment. An Industry Member that files a written application with the Company regarding disputed CAT Fees in accordance with these Fee Dispute Resolution Procedures is not required to pay such disputed CAT Fees until the dispute is resolved in accordance with these Fee Dispute Resolution Procedures, including any review pursuant to subparagraph (c)(8). For the purposes of this subparagraph (c)(9), the disputed CAT Fees means the amount of the invoiced CAT Fees that the Industry Member has asserted pursuant to these Fee Dispute Resolution Procedures that such Industry Member does not owe to the Company. The Industry Member must pay any invoiced CAT Fees that are not disputed CAT Fees when due as set forth in the original invoice.
- (B) Interest on Unpaid CAT Fees. Once the dispute regarding CAT Fees is resolved pursuant to these Fee Dispute Resolution Procedures, if it is determined that the Industry Member owes any of the disputed CAT Fees, then the Industry Member must pay such disputed CAT Fees that are owed as well as interest on such disputed CAT Fees from the original due date (that is, 30 days after receipt of the original invoice of such CAT Fees) until such disputed CAT Fees are paid at a per annum rate equal to the lesser of (i) the Prime Rate plus 300 basis points, or (ii) the maximum rate permitted by applicable law.

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