

## EXHIBIT 5

(additions are underlined; deletions are [bracketed])

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Rules of Cboe EDGX Exchange, Inc.

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Rule 4.5. Consolidated Audit Trail – Definitions

For purposes of Rules 4.5 through 4.16:

(a) “Account Effective Date” means:

(1) with regard to those circumstances in which an Industry Member has established a trading relationship with an institution or an individual but has not established an account with that institution or individual:

(A) when the trading relationship was established prior to Phase 2c or Phase 2d (as applicable depending on whether the account involves Eligible Securities that are equities or options) [November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members], either:

(1) – (3) No change.

(B) when the trading relationship was established on or after Phase 2c or Phase 2d (as applicable depending on whether the account involves Eligible Securities that are equities or options) [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 Phase 2c or Phase 2d (as applicable depending on whether the account involves Eligible Securities that are equities or options) [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 Phase 2c or Phase 2d (as applicable depending on whether the account involves Eligible Securities that are equities or options) [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 Phase 2c or Phase 2d (as applicable depending on whether the account involves Eligible Securities that are equities or options) [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 Phase 2c or Phase 2d (as applicable depending on whether the account involves Eligible Securities that are equities or options) [November 15, 2018 for Industry Members other than Small Industry Members, or prior to November 15, 2019 for Small Industry Members]:

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(d) “ATS” means an alternative trading system, as defined in Rule 300(a)(1) of Regulation ATS under the Exchange Act.

(e) “Business Clock” means a clock used to record the date and time of any Reportable Event required to be reported under Rules 4.5 through 4.16.

([e]f) “CAT” means the consolidated audit trail contemplated by SEC Rule 613.

([f]g) “CAT NMS Plan” means the National Market System Plan Governing the Consolidated Audit Trail, as amended from time to time.

([g]h) “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]i) “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 Rules 4.5 through 4.16.

([i]j) “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]k) “Compliance Threshold” has the meaning set forth in Rule 4.15(d).

([k]l) “Customer” means:

(1) – (2) No change.

([l]m) “Customer Account Information” shall include, but not be limited to, account number other than for individuals, 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 or an individual but has not established an account with that institution or individual, the Industry Member will:

(A) – (C) No change.

(2) in those circumstances in which the relevant account was established prior to Phase 2c or Phase 2d (as applicable depending on whether the account involves Eligible Securities that are equities or options) [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) – (D) No change.

[(m)n] “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) No change.

[(n)o] “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 and Plan for Reporting of Consolidated Options Last Sale Reports and Quotation Information (“OPRA”) Plans, and certain other vendors or third parties that may submit data to the Central Repository on behalf of Industry Members.

[(o)p] “Eligible Security” includes:

(1) – (2) No change.

[(p)q] “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)r] “Firm Designated ID” means a unique and persistent 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]; provided, however, such identifier may not be the account number for such trading account if the trading account is not a proprietary account.

[(r)s] “Industry Member” means a member of a national securities exchange or a member of a national securities association.

[(s)t] “Industry Member Data” has the meaning set forth in Rule 4.7(a)(2).

(1) “Phase 2a Industry Member Data” means Industry Member Data required to be reported to the Central Repository commencing in Phase 2a as set forth in the Technical Specifications.

(2) “Phase 2b Industry Member Data” means Industry Member Data required to be reported to the Central Repository commencing in Phase 2b as set forth in the Technical Specifications.

(3) “Phase 2c Industry Member Data” means Industry Member Data related to Eligible Securities that are equities other than Phase 2a Industry Member Data or Phase 2e Industry Member Data.

(4) “Phase 2d Industry Member Data” means Industry Member Data related to Eligible Securities that are options other than Phase 2b Industry Member Data or Phase 2e Industry Member Data, and Industry Member Data related to all Eligible Securities for the modification or cancellation of an internal route of an order.

(5) “Phase 2e Industry Member Data” means Customer Account Information and Customer Identifying Information, other than LTIDs, date account opened/Account Effective Date and Firm Designated ID type flag previously reported to the CAT.

(t)u “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)v “Listed Option” or “Option” have the meaning set forth in Rule 600(b)(35) of Regulation NMS.

(v)w “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)x “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)y “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)z “NMS Stock” means any NMS Security other than an option.

(z)aa “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]bb) “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]cc) “Order” or “order”, with respect to Eligible Securities, shall include:

(1) – (3) No change.

([cc]dd) “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]ee) “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]ff) “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]gg) “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]hh) “Received Industry Member Data” has the meaning set forth in Rule 4.7(a)(2).

([hh]ii) “Recorded Industry Member Data” has the meaning set forth in Rule 4.7(a)(1).

([ii]jj) “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]kk) “SRO” means any self-regulatory organization within the meaning of Section 3(a)(26) of the Exchange Act.

([kk]ll) “SRO-Assigned Market Participant Identifier” means an identifier assigned to an Industry Member by an SRO or an identifier used by a Participant.

([ll]mm) “Small Industry Member” means an Industry Member that qualifies as a small broker-dealer as defined in Rule 0-10(c) under the Securities Exchange Act of 1934, as amended.

([mm]nn) “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.

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## Rule 4.7. Consolidated Audit Trail – Industry Member Data Reporting

## (a) Recording and Reporting Industry Member Data

(1) Subject to paragraph (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:

(1) – (4) No change.

(5) time of order receipt or origination (using timestamps pursuant to Rule 4.10); [and]

(6) No change.

(7) the unique identification of any appropriate information barriers in place at the department within the Industry Member where the order was received or originated;

(8) any request by a Customer that a limit order not be displayed, or that a block size limit order be displayed, pursuant to applicable rules;

(9) the nature of the department or desk that originated the order, or received the order from a Customer;

(10) the type of account holder for which the order is submitted;

(11) for an Industry Member that operates an ATS:

(a) the ATS’s unique identifier for the order type of the order;

(b) the National Best Bid and National Best Offer (or relevant reference price) at the time of order receipt or origination, and the date and time at which the ATS recorded such National Best Bid and National Best Offer (or relevant reference price);

(c) the identification of the market data feed used by the ATS to record the National Best Bid and National Best Offer (or relevant reference price) for purposes of subparagraph (11)(b). If for any reason, the ATS uses an alternative market data feed than what was reported on its ATS data submission, the ATS must provide notice to the Central Repository of the fact that an alternative source was used, identify the alternative source, and specify the date(s), time(s) and securities for which the alternative source was used;

(d) the sequence number assigned to the receipt or origination of the order by the ATS's matching engine; and

(e) whether the ATS displays subscriber orders outside the ATS (other than to alternative trading system employees). If an ATS does display subscriber orders outside the ATS (other than to alternative trading system employees), indicate whether the order is displayed to subscribers only or through publicly disseminated quotation data.

(B) for the routing of an order:

(1) – (5) No change.

(6) if routed internally at the Industry Member, the identity and nature of the department or desk to which the order is routed, and the unique identification of any appropriate information barriers in place at the department within the Industry Member to which the order was transmitted; [and]

(7) Material Terms of the Order; and

(8) for Industry Members that operate ATSS, the sequence number assigned to the routing of the order by the ATS's matching engine.

(C) for the receipt of an order that has been routed, the following information:

(1) – (4) No change.

(5) SRO-Assigned Market Participant Identifier of the Industry Member or Participant routing the order; [and]

(6) No change.

(7) the unique identification of any appropriate information barriers in place at the department within the Industry Member which received the order;

(8) the nature of the department or desk that received the order;

(9) any request by a Customer that a limit order not be displayed, or that a block size limit order be displayed, pursuant to applicable rules; and

(10) for an Industry Member that operates an ATS:

(a) the ATS's unique identifier for the order type of the order;

(b) the National Best Bid and National Best Offer (or relevant reference price) at the time of order receipt, and the date and time at which the ATS recorded such National Best Bid and National Best Offer (or relevant reference price);

(c) the identification of the market data feed used by the ATS to record the National Best Bid and National Best Offer (or relevant reference price) for purposes of subparagraph (10)(b). If for any reason, the ATS uses an alternative market data feed than what was reported on its ATS data submission, the ATS must provide notice to the Central Repository of the fact that an alternative source was used, identify the alternative source, and specify the date(s), time(s) and securities for which the alternative source was used;

(d) the sequence number assigned to the receipt of the order by the ATS's matching engine; and

(e) whether the ATS displays subscriber orders outside the ATS (other than to alternative trading system employees). If an ATS does display subscriber orders outside the ATS (other than to alternative trading system employees), indicate whether the order is displayed to subscribers only or through publicly disseminated quotation data.

(D) if the order is modified or cancelled:

(1) – (4) No change.

(5) other changes in the Material Terms of the Order, if modified; [and]

(6) No change.

(7) the unique identification of any appropriate information barriers at the department within the Industry Member which received or originated the modification;

(8) any request by a Customer that a limit order not be displayed, or that a block size limit order be displayed, pursuant to applicable rules; and

(9) for an Industry Member that operates an ATS:

(a) the ATS's unique identifier for the order type of the order;

(b) the National Best Bid and National Best Offer (or relevant reference price) at the time of order modification or cancellation, and the date and time at which the ATS recorded such National Best Bid and National Best Offer (or relevant reference price);

(c) the identification of the market data feed used by the ATS to record the National Best Bid and National Best Offer (or relevant reference price) for purposes of subparagraph (9)(b). If for any reason, the ATS uses an alternative market data feed than what was reported on its ATS data submission, the ATS must provide notice to the Central Repository of the fact that an alternative source was used,



identify the alternative source, and specify that date(s), time(s) and securities for which the alternative source was used;

(d) the sequence number assigned to the modification or cancellation of the order by the ATS's matching engine; and

(e) each time the ATS's matching engine re-prices an order or changes the display quantity of an order, the time of such modification and the applicable new price or size.

(E) if the order is executed, in whole or in part:

(1) – (7) No change.

(8) for Industry Members that operate ATSs:

(a) the National Best Bid and National Best Offer (or relevant reference price) at the time of execution, and the date and time at which the ATS recorded such National Best Bid and National Best Offer (or relevant reference price);

(b) the identification of the market data feed used by the ATS to record the National Best Bid and National Best Offer (or relevant reference price) for purposes of subparagraph (8)(a). If for any reason, the ATS uses an alternative market data feed than what was reported on its ATS data submission, the ATS must provide notice to the Central Repository of the fact that an alternative source was used, identify the alternative source, and specify the date(s), time(s) and securities for which the alternative source was used; and

(c) the sequence number assigned to the execution of the order by the ATS's matching engine; and

(F) No change.

(2) Subject to paragraph (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 Rule 4.7(a)(1) “Industry Member Data”) in the manner prescribed by the Operating Committee pursuant to the CAT NMS Plan:

(A) No change.

(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 4.8, Customer Account Information and Customer Identifying Information for the relevant Customer[.];

(D) An Industry Member that operates an ATS must provide to the Central Repository:

(1) a list of all of its order types twenty (20) days before such order types become effective; and

(2) any changes to its order types twenty (20) days before such changes become effective.

An identifier shall not be required for market and limit orders that have no other special handling instructions; and

(E) If an Industry Member is required to submit and submits a trade report for a trade to one of FINRA's Trade Reporting Facilities, OTC Reporting Facility or Alternative Display Facility pursuant to applicable SRO rules, and the Industry Member is required to report the corresponding execution to the Central Repository:

(1) the Industry Member is required to report to the Central Repository the unique trade identifier reported by the Industry Member to such FINRA facility for the trade when the Industry Member reports the execution of an order pursuant to Rule 4.7(a)(1)(E);

(2) the Industry Member is not required to submit the SRO-Assigned Market Participant Identifier of the clearing broker pursuant to Rule 4.7(a)(2)(A)(2); and

(3) if the trade is cancelled and the Industry Member submits the cancellation to one of FINRA's Trade Reporting Facilities, OTC Reporting Facility or Alternative Display Facility pursuant to applicable SRO rules, the Industry Member is not required to submit the cancelled trade indicator pursuant to Rule 4.7(a)(2)(B), but is required to submit the time of cancellation to the Central Repository.

(3) No change.

(b) – (e) No change.

(f) Each Industry Member that operates an ATS that trades OTC Equity Securities shall provide to the Central Repository;

(1) the best bid and best offer for each OTC Equity Security traded on such ATS;

(2) an indication of whether each bid and offer for OTC Equity Securities was solicited or unsolicited; and

(3) the unpriced bids and offers for each OTC Equity Security traded on such ATS.

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## Rule 4.10. Consolidated Audit Trail – Time Stamps

## (a) Millisecond Time Stamps

(1) No change.

(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 up to nanoseconds.

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## Rule 4.13. Consolidated Audit Trail – Development and Testing

## (a) Development

## [(1) Connectivity and Acceptance Testing

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

(2) 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

(1) Industry Members (other than Small Industry Members) shall begin reporting Customer and Industry Member information, as required by Rules 4.8(a) and 4.9, respectively, to the Central Repository for processing no later than October 15, 2018.

(2) Small Industry Members shall begin reporting Customer and Industry Member information, as required by Rules 4.8(a) and 4.9, respectively, to the Central Repository for processing no later than October 15, 2019.

## (3) Submission of Order Data

## (1) Industry Members (other than Small Industry Members)

(B) 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.

(C) 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.

(1) Small Industry Members

(D) Small Industry Members are permitted, but not required, to submit order data for testing purposes beginning no later than May 15, 2019.

(E) 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 Quote. Industry Members are permitted, but not required to, submit Quote Sent Time on Options Market Maker quotes, beginning no later than October 15, 2018.]

(1) Industry Member file submission and data integrity testing for Phases 2a and 2b shall begin in December 2019.

(2) Industry Member testing of the Reporter Portal, including data integrity error correction tools and data submissions, shall begin in February 2020.

(3) The Industry Member test environment shall open with intrafirm linkage validations to Industry Members for both Phases 2a and 2b in April 2020.

(4) The Industry Member test environment shall open to Industry Members with interfirm linkage validations for both Phases 2a and 2b in July 2020.

(5) The Industry Member test environment shall open to Industry Members with Phase 2c functionality (full representative order linkages) in January 2021.

(6) The Industry Member test environment shall open to Industry Members with Phase 2d functionality (manual options orders, complex options orders, and options allocations) in June 2021.

(7) Participant exchanges that support options market making quoting shall begin accepting Quote Sent Time on quotes from Industry Members no later than April 2020.

(8) The Industry Member test environment (customer and account information) will be open to Industry Members in January 2022.

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Rule 4.16. Consolidated Audit Trail – Compliance Dates

(a) – (b) No change.

(c) CAT Data Reporting

(1) Each Industry Member (other than a Small Industry Member) shall record and report the Industry Member Data to the Central Repository [by November 15, 2018.] as follows:

(A) Phase 2a Industry Member Data by April 20, 2020;

(B) Phase 2b Industry Member Data by May 18, 2020;

(C) Phase 2c Industry Member Data by April 26, 2021;

(D) Phase 2d Industry Member Data by December 13, 2021; and

(E) Phase 2e Industry Member Data by July 11, 2022.

(2) Each Industry Member that is a Small Industry Member shall record and report the Industry Member Data to the Central Repository [by November 15, 2019.] as follows:

(A) a Small Industry Member that is required to record or report information to FINRA's Order Audit Trail System pursuant to applicable SRO rules ("Small Industry OATS Reporter") to report to the Central Repository Phase 2a Industry Member Data by April 20, 2020;

(B) a Small Industry Member that is not required to record or report information to FINRA's Order Audit Trail System pursuant to applicable SRO rules ("Small Industry Non-OATS Reporter") to report to the Central Repository Phase 2a Industry Member Data by December 13, 2021;

(C) a Small Industry Member to report to the Central Repository Phase 2b Industry Member Data, Phase 2c Industry Member Data, and Phase 2d Industry Member Data by December 13, 2021; and

(D) a Small Industry Member to report to the Central Repository Phase 2e Industry Member Data by July 11, 2022.

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