Nasdaq PHLX LLC Rules

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Options Rules

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Options 3 Options Trading Rules

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Section 3. Minimum Increments

(a) Except as provided in Supplementary Material to Options 3, Section 3 below, all options on stocks, index options, and Exchange Traded Fund Shares trading at a price of $3.00 or higher shall have a minimum increment of $.10, and all options on stocks and index options trading at a price under $3.00 shall have a minimum increment of $.05.

   (1) An order received at a price expressed in other than the appropriate minimum trading increment described in this Rule shall be rejected by the System.

   (2) Different minimum trading increments for dealings in option contracts other than those specified in paragraph (a) may also be fixed by the Exchange from time to time for option contracts of a particular series.

Supplementary Material to Options 3, Section 3

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[.04 All Nasdaq-100® Volatility Index Options shall have a minimum increment of $.01.]

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Options 4A Options Index Rules

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Section 12. Terms of Index Options Contracts

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(b) After a particular class of stock index options has been approved for listing and trading on the Exchange, the Exchange shall from time to time open for trading series of options therein. Within each approved class of stock index options, the Exchange shall open for trading a minimum of one expiration month and series for each class of approved stock index options and may also open for trading series of options having not less than twelve and up to 60 months to
expiration (long-term options series) as provided in subparagraph (b)(2). Prior to the opening of trading in any series of stock index options, the Exchange shall fix the expiration month and exercise price of option contracts included in each such series.

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(4) Short Term Option Series Program

After an index option class has been approved for listing and trading on the Exchange, the Exchange may open for trading on any Thursday or Friday that is a business day ("Short Term Option Opening Date") series of options on that class that expire at the close of business on each of the next five consecutive Fridays that are business days ("Short Term Option Expiration Date"). If the Exchange is not open for business on the respective Thursday or Friday, the Short Term Option Opening Date will be the first business day immediately prior to that respective Thursday or Friday. Similarly, if the Exchange is not open for business on the Friday of the following business week, the Short Term Option Expiration Date will be the first business day immediately prior to that Friday. Regarding Short Term Option Series:

(A) The Exchange may select up to [thirty (30)]fifty (50) currently listed option classes on which Short Term Option Series may be opened on any Short Term Option Opening Date. In addition to the [thirty-]fifty option class restriction, the Exchange also may list Short Term Option Series on any option classes that are selected by other securities exchanges that employ a similar program under their respective rules. For each index option class eligible for participation in the Short Term Option Series Program, the Exchange may open up to [twenty (20)]thirty (30) Short Term Option Series on index options for each expiration date in that class. The Exchange may also open Short Term Option Series that are opened by other securities exchanges in option classes selected by such exchanges under their respective short term option rules.

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(6) Nasdaq-100® Volatility Index Options ("VOLQ options").

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(D) Final Settlement Price Calculation.

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(II) The Closing VWAP shall be determined by reference to the prices and sizes of executed orders or quotes in the thirty-two underlying Nasdaq-100® index ("NDX") component options on Phlx, Nasdaq ISE, LLC and Nasdaq GEMX, LLC markets. Executed orders shall include simple orders and complex orders (excluding out-of-sequence and late trades), however, individual leg executions of a complex order will only be
included if the executed price of the leg is at or within the NBBO. The following process is used to calculate the Closing VWAP of the VOLQ options. At the end of individual one-second time observations during a 300 second period of time (the “Closing Settlement Period”) commencing at 9:32:01[0] on the expiration day (or [2.01] two minutes and one second after the open of trading in the event trading does not commence at 9:30:00[0] A.M. ET), and continuing each second for the next 300 seconds, the number of contracts traded at each price during the observation period is multiplied by that price to yield a Reference Number. All Reference Numbers are then summed, and that sum is then divided by the total number of contracts traded during the observation period [Sum of (contracts traded at a price x price) ÷ total contracts traded] to calculate a Volume Weighted Average Price for that observation period (a “One Second VWAP”) for that component option. If no transactions occur on Phlx, ISE and GEMX during any one-second observation period, the NBBO midpoint at the end of the one second observation period will be considered the One Second VWAP for that observation period for purposes of this settlement methodology. VOLS would utilize the best bid and best offer, which may consist of a quote or an order, from among the listing markets (Phlx, Nasdaq ISE, LLC and Nasdaq GEMX, LLC markets).

If, during any one second of the observation period, any of the thirty-two NDX option series used for Closing VWAP do not have a trade/quote, the index calculator would look back and use the most recent published quote midpoint during that day for the One Second VWAP for the option component that does not have a trade/quote.

If there is no One Second VWAP to utilize for any of the thirty-two NDX option series during the Closing Settlement Period, then the index calculator will consider that Closing Settlement Period invalid and will be unable to determine a Closing VWAP at that time.

In the event the Closing Settlement Period is invalid and a Closing VWAP cannot be determined, the index calculator will then roll the Closing Settlement Period forward by one second and determine if there is a One Second VWAP for each of the thirty-two NDX option series for all 300 consecutive seconds of the new Closing Settlement Period. If there is a One Second VWAP for all of the thirty-two NDX option series for all 300 consecutive seconds of the new Closing Settlement Period, a Closing VWAP will be calculated. If a One Second VWAP is not present for all of the thirty-two NDX option series during any one second of the new observation period, the index calculator will again roll the Closing Settlement Period forward by one second. The index calculator would continue to roll the Closing Settlement Period forward by one second until such time as it is able to capture a One Second VWAP for each of the
thirty-two NDX option series for all 300 consecutive seconds of the new Closing Settlement Period. At that time, a Closing VWAP will be calculated.

Each One Second VWAP for each component option is then used to calculate the Volatility Index, resulting in the calculation of 300 sequential Volatility Index values. Finally, all 300 Volatility Index values will be arithmetically averaged (i.e., the sum of 300 Nasdaq-100® Volatility Index calculations is divided by 300) and the resulting figure is rounded to the nearest .01 to arrive at the settlement value disseminated under the ticker symbol VOLS.

In the event of a trading halt in one or more options, excluding a halt in all Nasdaq-100 index options, prior to the completion of the Closing Settlement Period, the Exchange would continue to look back for a One Second VWAP prior to looking forward. In the event of a trading halt in all Nasdaq-100 index options, the Exchange would commence the calculation of the settlement window beginning [2:00:01] two minutes and one second after the re-opening of trading and publish that value on its website. In this scenario, the Exchange would not look back prior to the trading halt.

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