## **Supplemental Attachment – ATS-N Part III ITM 11(c)**

Item 11: Trading Services, Facilities and Rules c. Explain the established, non-discretionary rules and procedures of the NMS Stock ATS, including order interaction rules for the priority, pricing methodologies, allocation, matching, and execution of orders and trading interest, and other procedures governing trading, such as price improvement functionality, price protection mechanisms, short sales, locked-crossed markets, the handling of execution errors, and the time-stamping of orders and executions.

## **Hosted Pools**

The ATS may setup a Hosted Pool, at the request of a Subscriber, where such Subscriber will designate that an order interact with other orders entered by that same Subscriber, or other Subscribers participating in the same Hosted Pool. Hosted Pools are described in more detail in Part III, Items 7 and 9. An order designated to interact within a Hosted Pool can be designated to only interact with that Hosted Pool or can also be designated to interact with liquidity outside the Hosted Pool after checking for liquidity available in that Hosted Pool, as described further in Part III, Item 7. An order designated to interact with liquidity outside the Hosted Pool in the ASPEN book cannot be displayed.

Unless otherwise stated, the ATS' matching and trading rules applies to the Hosted Pools in the same manner as the ATS. An order designated to interact within a Hosted Pool that also is designated to interact with liquidity outside the Hosted Pool does not receive a new timestamp when determining eligibility to match against orders in the main book. Orders and order modifications are timestamped on arrival and those timestamps do not change. An order that is eligible to match in the main book after checking for liquidity available in a Hosted Pool complies with the priority rules in the main book based on its timestamp.

The match priority criteria in a Hosted Pool are generally the same as in the ATS main books. In ASPEN Hosted Pools, orders eligible for matching will be matched based on price and the time at which such orders are received relative to other orders (as orders designated to interact with other orders in a Hosted Pool are not eligible to be displayed orders). In the ASPEN main book, orders eligible for matching will be matched based on price, display type (i.e., with respect to ASPEN, at each price level, displayed orders will have priority over non-displayed orders), and the time at which such orders are received relative to other orders. Within the Hosted Pools, the ATS offers, at the request of a Subscriber that requested that the Hosted Pool be set up, the ability to configure a Hosted Pool such that all participants of the Hosted Pool must preference their own firm orders in a multi-broker Hosted Pool prior to being eligible to match against other broker orders. Such a configuration is set on the entire Hosted Pool and not on an order-by-order basis.

Within the Hosted Pools, the ATS offers, at the request of a Subscriber that requested that the Hosted Pool be set up, to specify that matching should be continuous in an individual Hosted Pool. If the Hosted Pool is marked as continuous, orders are matched immediately after each new order, replace or NBBO update is received, if the new event makes corresponding continuous pool orders matchable. This continuous matching functionality is only available in Hosted Pools and is different than, and without regard to, the near-continuous matching mechanism in the main ATS books. Orders in Hosted Pools also can be made eligible to access both continuous and near-continuous Hosted Pools. In such cases, an order tagged for both a continuous and a near-continuous Hosted Pool will first interact with the continuous Hosted Pool and, if the order is not fully executed in such Hosted Pool, it will then interact with the near-continuous Hosted Pool, i.e., continuous Hosted Pools will have preference for matching over near-continuous Hosted Pools.

Subscribers participating in a Hosted Pool may request that orders designated for the Midpoint book and the ASPEN book have the ability to interact with each other inside the Hosted Pool. When such an option is selected, any eligible orders will interact at each Match Event, regardless if the next Match Event is for Midpoint book-eligible orders or ASPEN book-eligible orders. The Block IOI service offered in the Hosted Pool is available for the Midpoint book only.

Within the Hosted Pools, the ATS offers, at the request of a Subscriber, where orders are designated to interact within multiple Hosted Pools, the ability to set a configured preference for the sequence of the Hosted Pools in which the Subscriber's orders will interact within those multiple Hosted Pools. Such sequencing may supersede the match priority criteria for, and therefore the prices received by, a particular order in the Hosted Pools.

Within the Hosted Pools, the ATS offers the ability to allow or prevent the matching of orders for the same MPID of the Subscriber according to custom keys specified by a Subscriber via FIX tags. See Part III, Item 14 for more information. This functionality allows a Subscriber to control which orders can match with other orders in a Hosted Pool. For example, a buy order sent with a "prevent" instruction and a key equal to "1 2 3", will not be able to match against an order that includes a key of either "1", "2" or "3." Conversely, a buy order with an "allow" key of "4 5" can only match with orders containing a key of either "4" or "5".

Within the Hosted Pools, the ATS offers, at the request of a Subscriber that requested that the Hosted Pool be set up, a price improvement logic that will split any overlap in effective limit prices at a fixed level set for each Hosted Pool. For every trade in such a Hosted Pool, a specified percentage of the overlap will go to the liquidity provider and the remaining percentage will go to the liquidity taker (with the total percentage equaling 100%). The effective limit price for each order in the Hosted Pool is determined as the less aggressive of the peg instruction, limit price, and/or prevailing NBBO.

For example, suppose that the specified percentage is set at 75% of the overlap for liquidity provider and 25% for liquidity taker and suppose that a buyer has a posted order in a Hosted Pool

at a limit price of \$10.01. Subsequently, a seller sends an order with a limit price of \$10.00, creating a \$0.01 overlap. The liquidity provider (the buyer) will receive 75% of the overlap and the liquidity taker (the seller) will receive 25% of the overlap, and these two orders will be crossed at a price of \$10.0025.