DATE: **February 28, 2019**

TO: **MIAX Emerald Members**

FROM: **MIAX Emerald Regulatory Department**

RE: **MIAX Emerald System Settings**

The following is a guide to the settings to be deployed on the MIAX Emerald System.

- **Opening Pause Timer** – The System will pause for **one half (.5) second** to allow the market place to absorb this information.

- **Post Halt Notification** –The Post-Halt Notification will be broadcast **twenty (20) seconds** before trading will begin or resume after a trading system halt

- **Opening Delay** – If, after two minutes following the dissemination of a quote or trade in the market for the underlying security, there are no valid width quotes in the System, the opening process can begin when one Market Maker has submitted its valid width quote

- **Quote Relief** – Requires Regulatory Department approval to allow relief from the bid/ask differentials set forth in MIAX Emerald Rule 603(b)(4). It is configurable either globally or on a class by-class basis

- **Opening Imbalance Timer** – The Opening Imbalance Timer is a **one (1) second** pause

- **Number of Imbalance Process Iterations** – The System may repeat an imbalance process **three (3) times**

- **Opening Route Delay** – The Route Timer is set at **one half (.5) second**

- **Pre-Opening Imbalance Timer** - The System will refresh the pre-opening imbalance message every **five (5) seconds**

- **Quote Width**

  - **Opening Valid Quote Width Tables** –See Appendix A

  - **Opening Priority Quote Width Table** – See Appendix A

  - **Free Trade Quote Valid Width Table** - See Appendix A

  - **Free Trade Priority Quote Width Table** - See Appendix A

- **Opening Expanded Quote Range Table** - See Appendix B

- **Opening Quality Market Table** - See Appendix C

Regulatory questions may be directed to Regulatory@MIAXOptions.com or (609) 897-7309.

Appendix A

Quote Width Table – Penny Always, Penny-Nickel, Nickel-Dime		
	Maximum Width	**Long-Term Option Maximum Width Multiplier**
Opening Valid Quote Width	$5.00	2X*
Opening Priority Quote Width	$5.00	2X*
Free Trading Valid Quote Width	$5.00	No Maximum
Free Trading Priority Quote Width	$5.00	1X

* There is no maximum quote width for Regulatory requirements

Appendix B

Option Classes Not Included in the Penny Pilot - Expanded Quote Range for Nickel-Dime Issues:			
Low end of range (bid)	**High end of range (bid)**	**Expanded Quote Range**	**Long-Term Option Maximum Width**
$0.00	$1.00	$0.05	5X
$1.01	$3.00	$0.10	5X
$3.01	$5.00	$0.20	5X
$5.01	$10.00	$0.30	5X
$10.01	$20.00	$0.50	5X
$20.01	$40.00	$0.70	5X
$40.01	+	$0.90	5X

Option Classes Included in the Penny Pilot - Expanded Quote Range for Penny-Nickel Issues:			
Low end of range (bid)	**High end of range (bid)**	**Expanded Quote Range**	**Long-Term Option Maximum Width**
$0.00	$1.00	$0.05	5X
$1.01	$3.00	$0.10	5X
$3.01	$5.00	$0.20	5X
$5.01	$10.00	$0.30	5X
$10.01	$20.00	$0.50	5X
$20.01	$40.00	$0.70	5X
$40.01	+	$0.90	5X

Options Overlying SPY/IWM/QQQQ Expanded Quote Range for All Penny Issues:			
Low end of range (bid)	**High end of range (bid)**	**Expanded Quote Range**	**Long-Term Option Maximum Width**
$0.00	$0.40	$0.05	5X
$0.41	$1.00	$0.07	5X
$1.01	$2.00	$0.10	5X
$2.01	$3.00	$0.15	5X
$3.01	$5.00	$0.20	5X
$5.01	$10.00	$0.30	5X
$10.01	$20.00	$0.50	5X
$20.01	$40.00	$0.70	5X
$40.01	+	$0.90	5X

Appendix C

Option Classes Not Included in the Penny Pilot – Quality Market Range for Nickel-Dime Issues:			
Low end of range (bid)	High end of range (bid)	Expanded Quote Range	Long-Term Option Maximum Width
$0.00	$1.00	$0.15	1X
$1.01	$2.00	$0.22	1X
$2.01	$3.00	$0.30	1X
$3.01	$4.00	$0.45	1X
$5.01	$7.00	$0.60	1X
$7.01	$10.00	$0.75	1X
$10.01	$20.00	$0.90	1X
$20.01	$30.00	$1.20	1X
$30.01	$40.00	$1.50	1X
$40.01	+	$2.25	1X

Option Classes Included in the Penny Pilot – Quality Market Range for Penny-Nickel Issues:			
Low end of range (bid)	High end of range (bid)	Expanded Quote Range	Long-Term Option Maximum Width
$0.00	$1.00	$0.10	1X
$1.01	$2.00	$0.14	1X
$2.01	$3.00	$0.18	1X
$3.01	$5.00	$0.40	1X
$5.01	$7.00	$0.50	1X
$7.01	$10.00	$0.60	1X
$10.01	$20.00	$1.00	1X
$20.01	$30.00	$1.60	1X
$30.01	$40.00	$2.00	1X
$40.01	+	$3.00	1X

Options Overlying SPY/IWM/QQQQ – Quality Market Range for All Penny Issues:			
Low end of range (bid)	High end of range (bid)	Expanded Quote Range	Long-Term Option Maximum Width
$0.00	$0.40	$0.06	1X
$0.41	$1.00	$0.10	1X
$1.01	$2.00	$0.12	1X
$2.01	$3.00	$0.14	1X
$3.01	$5.00	$0.18	1X
$5.01	$7.00	$0.24	1X
$7.00	$10.00	$0.40	1X
$10.01	$15.00	$0.60	1X
$15.01	$20.00	$0.80	1X
$20.01	$30.00	$1.00	1X
$30.00	$40.00	$1.20	1X