Form 1 Page 1 Execution Page	UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 APPLICATION FOR, AND AMENDMENTS TO APPLICATION FOR, REGISTRATION AS A NATIONAL SECURITIES EXCHANGE OR EXEMPTION FROM REGISTRATION PURSUANT TO SECTION 5 OF THE EXCHANGE ACT	Date filed (MM/DD/YY): 06/14/19	OFFICIAL USE ONLY

Warning: Failure to keep this form current and to file accurate supplementary information on a timely basis, or the failure to keep accurate books and records or otherwise comply with the provisions of law applying to the conduct of the applicant would violate the federal securities laws and may result in disciplinary, administrative or criminal action

INTENTIONAL MISSTATEMENTS OR OMISSIONS OF FACTS MAY CONSTITUTE CRIMINAL VIOLATIONS

☐ APPLICATION ☒ AMENDMENT

1. State the name of the applicant: MIAX Emerald, LLC

2. Provide the applicant's primary street address (Do note use a P.O. Box): 7 Roszel Road, Suite 5-A, Princeton, NJ 08540

3. Provide the applicant's mailing address (if different):

4. Provide the applicant's business telephone and facsimile number:
Telephone: 609-897-7300; Facsimile: 609-987-2210

5. Provide the name, title and telephone number of a contact employee:
Barbara J. Comly, EVP, General Counsel & Corporate Secretary
609-897-7315

6. Provide the name and address of counsel for the applicant:
Barbara J. Comly, EVP, General Counsel & Corporate Secretary
MIAX Emerald, LLC
7 Roszel Road, Suite 5-A
Princeton, NJ 08540

7. Provide the date applicant's fiscal year ends: December 31

8. Indicate legal status of applicant: ☐ Corporation ☐ Sole Proprietorship ☐ Partnership ☒ Limited Liability Company ☐ Other (specify):

If other than a sole proprietor, indicate the date and place where applicant obtained its legal status (e.g. state where incorporated, place where partnership agreement was filed or where applicant entity was formed):

(a) Date (MM/DD/YY): 01/30/18 (b) State/Country of formation: Delaware

(c) Statute under which applicant was organized: Delaware Limited Liability Company Act, 6 Del. C. 18-1d et seq.

SEC
Mail Processing
Section
JUN 17 2019
Washington DC
408

Securities and Exchange Commission
Trading and Markets
JUN 17 2019
RECEIVED

EXECUTION: The applicant consents that service of any civil action brought by, or notice of any proceeding before, the Securities and Exchange Commission in connection with the applicant's activities may be given by registered or certified mail or confirmed telegram to the applicant's contact employee at the main address, or mailing address if different, given in Items 2 and 3. The undersigned, being first duly sworn, deposes and says that he/she has executed this form on behalf of, and with the authority of, said applicant. The undersigned and applicant represent that the information and statements contained herein, including exhibits, schedules, or other documents attached hereto, and other information filed herewith, all of which are made a part hereof, are current, true, and complete.

MIAX EMERALD, LLC

Date: June 14, 2019

By: Barbara J. Comly
Barbara J. Comly
EVP, General Counsel & Corporate Secretary

Subscribed and sworn before me this 14th day of June, 2019.

Jane Post
Notary Public of the State of New Jersey
My Commission Expires October 27, 2019

19003662

This page must always be completed in full with original, manual signature and notarization.
Affix notary stamp or seal where applicable.

SEC
Mail Processing
Section
JUN 17 2019
Washington DC
408

MIAX Emerald™

Barbara J. Comly
General Counsel

7 Roszel Road, Suite 5-A
Princeton, New Jersey 08540
T 609 897 7300
F 609 987 2210
bcomly@miami-holdings.com

June 14, 2019

VIA FEDERAL EXPRESS

Jeannette Marshall
Division of Trading and Markets
Office of Market Supervision
Securities and Exchange Commission
100 F. Street, N.E.
Washington, D.C. 20549

Securities and Exchange Commission
Trading and Markets

JUN 17 2019

RECEIVED

Re: MIAX Emerald, LLC ("Emerald")
Amendment 2019-5 to Form 1 Application

Dear Ms. Marshall:

Enclosed for official filing pursuant to Rule 6a-2(c) are an original and two copies of Amendment 2019-5 to the Form 1 Application of Emerald, which includes the following changes:

Exhibits A, B, C & J – Triennial filing pursuant to Rule 6a-2(c)

Please do not hesitate to contact me if you have any questions in connection with this matter.

Very truly yours,

Barbara J. Comly
EVP, General Counsel & Corporate Secretary

Enclosures
cc: Marlene Olsen

MIAX EMERALD, LLC
("EMERALD")

Form 1 Amendment No. 2019-5
Triennial Filing

June 14, 2019

EXHIBIT A	A copy of the constitution, articles of incorporation or association with all subsequent amendments, and of existing by-laws or corresponding rules or instruments, whatever the name, of the applicant.
EXHIBIT B	A copy of all written rulings, settled practices having the effect of rules, and interpretations of the Governing Board or other committee of the applicant in respect of any provisions of the constitution, by-laws, rules, or trading practices of the applicant which are not included in Exhibit A.
EXHIBIT C	Information relating to each subsidiary or affiliate of the applicant, and of any entity with whom the applicant has a contractual or other agreement relating to the operation of an electronic trading system to be used to effect transactions on the exchange.
EXHIBIT J	A list of the officers, governors, members of all standing committees, or persons performing similar functions for the applicant.

Exhibit A

EXHIBIT A

Exhibit Request:

A copy of the constitution, articles of incorporation or association with all subsequent amendments, and of existing by-laws or corresponding rules or instruments, whatever the name, of the applicant.

Response:

The following materials are submitted by MIAX Emerald, LLC ("Emerald" or the "Exchange") in response to this Exhibit A:

1. The Certificate of Formation of MIAX Emerald, LLC dated January 30, 2018, is attached.

2. The Limited Liability Company Agreement of MIAX Emerald, LLC dated February 1, 2018, is attached.

3. The Amended and Restated Limited Liability Company Agreement of MIAX Emerald, LLC dated December 21, 2018, is attached.

4. The By-Laws of MIAX Emerald, LLC dated December 21, 2018, are attached.

CERTIFICATE OF FORMATION

OF

MIAX EMERALD, LLC

THIS IS TO CERTIFY that there is hereby formed a limited liability company under and by virtue of the Delaware Limited Liability Company Act (the "Act") (6 Del. C. §18-101, et. seq.).

1. The name of the limited liability company is **MIAX Emerald, LLC** (the "Company").

2. The address of the registered office of the Company in the State of Delaware is 1209 Orange Street in the City of Wilmington, County of New Castle, ZIP Code 19801, and the name of the registered agent at such address for service of process is The Corporation Trust Company.

3. This Certificate shall be effective upon filing.

4. The duration of this limited liability company will be perpetual.

IN WITNESS WHEREOF, the undersigned, an authorized person, has signed this certificate this 30th day of January, 2018.

BARBARA J. COMLY
7 Roszel Road, 5th Floor
Princeton, NJ 08540

State of Delaware
Secretary of State
Division of Corporations
Delivered 09:46 AM 01/30/2018
FILED 09:46 AM 01/30/2018
SR 20180580703 - File Number 6733169

LIMITED LIABILITY COMPANY AGREEMENT
OF
MIAX EMERALD, LLC

The undersigned is executing this Limited Liability Company Agreement (the "Agreement") as of February 1, 2018 for the purpose of forming a limited liability company (the "Company") pursuant to the provisions of the Delaware Limited Liability Company Act, 6 Del. C. § 18-101 et seq., as amended from time to time (the "Act"), and does hereby agree as follows:

1. **Formation.** A certificate of formation of the Company (the "Certificate") was executed and filed with the Office of the Secretary of State of the State of Delaware on January 30, 2018.

2. **Name.** The name of the limited liability company shall be **"MIAX Emerald, LLC"**, or such other name as the Member may from time to time hereafter designate.

3. **Definitions.** Capitalized terms not otherwise defined herein shall have the meanings set forth therefor in Section 18-101 of the Act.

4. **Purpose.** The Company is formed for the purpose of engaging in any lawful business permitted by the Act or the laws of any jurisdiction in which the Company may do business. The Company shall have the power to engage in all activities and transactions which the Member deems necessary or advisable in connection with the foregoing.

5. **Offices.** The principal place of business and office of the Company shall be located at, and the Company's business shall be conducted from, such place or places as the Member may designate from time to time.

The registered office of the Company in the State of Delaware shall be located at c/o The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801. The name and address of the registered agent of the Company for service of process on the Company in the State of Delaware shall The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801. The Member may from time to time change the registered agent or office by an amendment to the certificate of formation of the Company.

6. **Member.** Miami International Holdings, Inc. is the sole member of the Company (the "Member") holding 100% of the membership interests of the Company. The name and business or residence address of the Member is 7 Roszel Road, 5th Floor, Princeton, NJ 08504.

7. **Term.** The term of the Company shall commence on the date of filing of the certificate of formation of the Company in accordance with the Act and shall continue until the Company is dissolved and its affairs are wound up in accordance with Section 17 of this Agreement and a certificate of cancellation is filed in accordance with the Act.

8. **Board of Directors; Delegation of Authority and Duties.**

(a) Member and Board of Directors. The Member, acting through the Board (defined below), shall manage and control the business and affairs of the Company, and shall possess all rights and powers as provided in the Act and otherwise by law. Except as otherwise expressly provided for herein, the Member hereby consents to the exercise by the Board of all such powers and rights conferred on them by the Act with respect to the management and control of the Company. Notwithstanding the foregoing and except as explicitly set forth in this Agreement, if a vote, consent or approval of the Member is required by the Act or other applicable law with respect to any act to be taken by the Company or matter considered by the Board, the Member agrees that it shall be deemed to have consented to or approved such act or voted on such matter in accordance with a vote of the Board on such act or matter.

(b) Delegation by Board. The Board shall have the power and authority to delegate to one or more other persons the Board's rights and powers to manage and control the business and affairs of the Company, including to delegate to agents and employees of the Member, a Director (as defined below) or the Company (including Officers), and to delegate by a management agreement or another agreement with, or otherwise to, other persons. The Board may authorize any person (including, without limitation, the Member or any Officer or Director) to enter into and perform under any document on behalf of the Company.

(c) Committees. The Board may, from time to time, designate one or more committees, each of which shall be comprised of at least two Directors. Any such committee, to the extent provided in the enabling resolution and until dissolved by the Board, shall have and may exercise any or all of the authority of the Board. At every meeting of any such committee, the presence of a majority of all the representatives thereof shall constitute a quorum, and the affirmative vote of a majority of the representatives present shall be necessary for the adoption of any resolution. The Board may dissolve any committee at any time, unless otherwise provided in this Agreement.

9. **Establishment of Board of Directors.**

(a) Directors. There shall be established a Board of Directors (the "Board") composed of not less than (1) and no more than twenty-one (21) persons as determined from time to time by the Member ("Directors"), each of whom shall be elected by the Member. Any Director may be removed from the Board at any time by the Member. Each Director shall remain in office until his or her death, resignation or removal. In the event of death, resignation or removal of a Director, the party or parties, as applicable, which appointed such Director shall fill the vacancy created. Notwithstanding anything in this Agreement to the contrary, Directors shall not be deemed to be "members" or "managers" (as such terms are defined in the Act) of the Company.

(b) No Individual Authority. No Director has the authority or power to act for or on behalf of the Company, to do any act that would be binding on the Company or to make any expenditures or incur any obligations on behalf of the Company or authorize any of the foregoing, other than acts that are authorized by the Board.

(c) Chairman. The Board shall designate a Director to serve as chairman. The chairman shall, unless a majority of Directors present determine otherwise, preside at all meetings of the Board. If the chairman is absent at any meeting of the Board, a majority of the Directors present shall designate another Director to serve as interim chairman for that meeting.

10. **Officers**. The Member may, from time to time as it deems advisable, designate natural persons as officers of the Company (the "Officers") or successor Officers of the Company and assign titles to any such person. Unless the Member decides otherwise, if the title is one commonly used for officers of a business corporation formed under the Delaware General Corporation Law, the assignment of such title shall constitute the delegation to such person of the authorities and duties that are normally associated with that office. Any delegation pursuant to this Section 8 may be revoked at any time by the Member. An Officer may be removed with or without cause at any time by the Member.

11. **Advisory Board**. The Member may appoint any person or persons to act in an advisory capacity to the Company. Such a group shall be known as the Advisory Board.

12. **Capital Contributions**. The Member shall make capital contributions to the Company from time to time, which amounts shall be set forth in the books and records of the Company.

13. **Transfers of Member Interest**. The Member may sell, assign, pledge or otherwise transfer or encumber (collectively, a "Transfer") any of its Limited Liability Company Interest in the Company to any Person so long as such Transfer is in writing.

14. **Resignation**. The Member shall have the right to resign from the Company so long as such resignation is in writing. The provisions hereof with respect to distributions upon resignation are exclusive and no Member shall be entitled to claim any further or different distribution upon resignation under Section 18-604 of the Act or otherwise.

15. **Allocations and Distributions**. Distributions of cash or other assets of the Company shall be made at such times and in such amounts as the Member may determine. Distributions shall be made to (and profits and losses of the Company shall be allocated among) the Member.

16. **Return of Capital**. The Member has the right to receive any distributions which include a return of all or any part of such Member's capital contribution, provided that upon the dissolution and winding up of the Company, the assets of the Company shall be distributed as provided in Section 18-804 of the Act.

17. **Dissolution**. The Company shall be dissolved and its affairs wound up upon the occurrence of an event causing a dissolution of the Company under Section 18-801 of the Act, except the Company shall not be dissolved upon the occurrence of an event that terminates the continued membership of a Member if (i) at the time of the occurrence of such event there are at least two Members of the Company, or (ii) within ninety (90) days after the occurrence of such

event, all remaining Members agree in writing to continue the business of the Company and to the appointment, effective as of the date of such event, of one or more additional Members. In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority set forth in Section 18-804 of the Act.

18. **Amendments**. This Agreement may be amended only upon the written consent of the Member.

19. **Other Business**. The Member may engage in or possess an interest in other business ventures of every kind and description, independently or with others. The Company shall not have any rights in or to such independent ventures or the income or profits therefrom by virtue of this Agreement.

20. **Limited Liability**. The Member shall not have any liability for the debts, obligations or liabilities of the Company except to the extent provided by the Act.

21. **Exculpation; Indemnification**. Neither the Member, the Officers nor any of their respective affiliates or agents (collectively, "Covered Persons") shall be liable to the Company or any other person or entity who has an interest in the Company for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement. To the fullest extent permitted by applicable law, each Covered Person shall be entitled to indemnification from the Company for any loss, damage or claim incurred by such Covered Person by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement; provided, however, that any indemnity under this Section 21 shall be provided out of and to the extent of Company assets only, and neither the Member nor the Officer, as applicable, nor any other Covered Person, shall have personal liability on account thereof.

22. **Banking Matters**. The Member and each Officer and any agent or employee of the Company, or other person designated by such Member or Officer is hereby authorized and empowered (A) to (i) establish one or more domestic or international accounts (including but not limited to, depository, checking, disbursement, custodian, or investment accounts, and other accounts as deemed necessary or expeditious for business purposes of the Company) ("Accounts"), in the name of the Company with any bank, trust company, savings and loan institution, brokerage firm or other financial institution which said Member or Officer shall from time to time designate as a depository of funds, securities or other property of the Company, for any purpose and on terms and conditions deemed appropriate by such person on behalf of the Company; and (ii) close Accounts of the Company now or hereafter established; and (B) to assign, limit or revoke any and all authority of any agent or employee of the Company, or other person designated by such Member or Officer to (i) sign checks, drafts and orders for the payment of money drawn on the Company's Accounts, and all notes of the Company and all

acceptances and endorsements of the Company; (ii) execute or initiate electronic fund transfers; (iii) execute or initiate foreign currency exchange transactions; (iv) execute or initiate the investment of monies; and (v) initiate requests for information for any Account of the Company.

23. **Authorized Person**. Delaware Business Incorporators, Inc. is hereby designated as an "authorized person" within the meaning of the Act, and has executed, delivered and filed the Certificate with the Secretary of State of the State of Delaware. Upon the filing of the Certificate with the Secretary of State of Delaware, Delaware Business Incorporators, Inc.'s powers as an "authorized person" ceased.

24. **Amendment**. This Agreement may only be amended by a writing duly signed by the Member.

25. **Governing Law**. This Agreement shall be governed by, and construed under, the laws of the State of Delaware, without regard to conflict of law rules.

IN WITNESS WHEREOF, the undersigned has duly executed this Agreement as of the date first written above.

MIAMI INTERNATIONAL HOLDINGS, INC.

By: _____
THOMAS P. GALLAGHER
Chairman and Chief Executive Officer
7 Roszel Road, 5th Floor
Princeton, NJ 08540

AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
OF
MIAX EMERALD, LLC
(a Delaware limited liability company)

Miami International Holdings, Inc., a Delaware corporation, the sole member (the "LLC Member") of **MIAX Emerald, LLC**, a Delaware limited liability company (the "Company"), pursuant to and in accordance with the Delaware Limited Liability Company Act, 6 Del.C. § 18-101, et seq. (the "LLC Act"), hereby declares the following to be the Amended and Restated Limited Liability Company Agreement (the "LLC Agreement") of the Company which amends and restates in its entirety the Limited Liability Company Agreement dated February 1, 2018 of the Company (the "Operating Agreement"). Capitalized terms not otherwise defined herein shall have the meanings set forth on Schedule A to this LLC Agreement.

Section 1. **Formation of the Company**. The Company has been formed as a limited liability company under the LLC Act by the filing of a Certificate of Formation with the Office of the Secretary of State of the State of Delaware. The LLC Member agrees to be bound by and comply with the provisions thereof and hereof.

Section 2. **Name.** The name of the Company is "MIAX Emerald, LLC".

Section 3. **Principal Place of Business.** The location of the principal place of business of the Company shall be 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540, or such other place as determined by the Board of Directors from time to time.

Section 4. **Registered Office; Registered Agent.** The registered office of the Company required by the LLC Act to be maintained in the State of Delaware shall be 3422 Old Capitol Trail, Suite 700, Wilmington, DE 19808-6192, County of New Castle or such other office as the Board of Directors may designate from time to time. The registered agent for the Company shall be Delaware Business Incorporators, Inc., or such other registered agent as the Board of Directors may designate from time to time.

Section 5. **Term.** The Company shall continue until the Company is terminated in accordance with the provisions of this LLC Agreement.

Section 6. **LLC Member.** The mailing address of the LLC Member is set forth on Schedule B attached hereto. The LLC Member was admitted to the Company as an LLC Member of the Company upon its execution of a counterpart signature page to the Operating Agreement at which time it acquired 100% of the limited liability company interests of the Company.

Section 7. **Purpose of the Company.** The purpose of the Company shall be to conduct the operations of an "exchange" within the meaning of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and to conduct any lawful business or activity whatsoever, as

permitted by applicable law and as determined from time to time by the board of directors of the Company (the "Board of Directors").

Section 8. Powers. The Company, and the Board of Directors and the Officers of the Company on behalf of the Company, (i) shall have and exercise all powers necessary, convenient or incidental to accomplish its purposes as set forth in Section 7 and (ii) shall have and exercise all of the powers and rights conferred upon limited liability companies formed pursuant to the LLC Act.

Section 9. Management.

(a) Board of Directors. The business and affairs of the Company shall be managed by or under the direction of a Board of Directors. Each Director is hereby designated as a "manager" within the meaning of the LLC Act. All Directors shall be elected by the LLC Member in the manner described in the By-Laws (as defined below). Each Director shall execute and deliver an instrument accepting such appointment and agreeing to be bound by all the terms and conditions of this LLC Agreement and the By-Laws. A Director need not be an LLC Member or an Exchange Member. The Directors as of the date of this LLC Agreement are set forth on Schedule C attached hereto.

(b) Powers. The Board of Directors shall have the power to do any and all acts necessary, convenient or incidental to or for the furtherance of the purposes described herein, including all powers, statutory or otherwise. The Board of Directors has the authority to bind the Company.

(c) By-Laws. The Company, the LLC Member and the Board of Directors hereby adopt the By-Laws of the Company in the form attached hereto as Exhibit A, as the same may be amended from time to time in accordance with the terms therein and in this LLC Agreement (the "By-Laws"). Each member of the Board of Directors, each Officer and the LLC Member shall be subject to the express provisions of this LLC Agreement and of the By-Laws. In case of any conflict between the provisions of this LLC Agreement and any provisions of the By-Laws, the provisions of this LLC Agreement shall control.

(d) Directors as Agents. To the extent of their powers set forth in this LLC Agreement, the Directors are agents of the Company for the purpose of the Company's business, and the actions of the Directors taken in accordance with such powers set forth in this LLC Agreement shall bind the Company. Notwithstanding the last sentence of Section 18-402 of the LLC Act, except as provided in this LLC Agreement, the By-Laws or in a resolution of the Directors, a Director may not bind the Company.

Section 10. Officers.

(a) Officers of the Company. Except as provided herein, the Board may, from time to time as it deems advisable, select natural persons who are employees or agents of the Company and designate them as officers of the Company (the "Officers") and assign titles (including, without limitation, Chief Executive Officer, Vice President, Chief Financial Officer,

Chief Regulatory Officer, Secretary and Treasurer) to any such person. The Board may appoint such other Officers and agents as it shall deem necessary or advisable who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board. The salaries of all Officers and agents of the Company shall be fixed by or in the manner prescribed by the By-Laws. The Officers of the Company shall hold office until their successors are chosen and qualified. Any Officer may be removed at any time, with or without cause, by the Board. Any vacancy occurring in any office of the Company shall be filled by the Board.

(b) Officers as Agents. The Officers, to the extent of their powers set forth in this LLC Agreement, the By-Laws or otherwise vested in them by action of the Board not inconsistent with this LLC Agreement, are agents of the Company for the purpose of the Company's business, and the actions of the Officers taken in accordance with such powers shall bind the Company.

(c) Duties of Board and Officers. Except to the extent otherwise modified herein, each Director and Officer shall have a fiduciary duty of loyalty and care similar to that of directors and officers of business corporations organized under the General Corporation Law of the State of Delaware.

Section 11. Advisory Board. The LLC Member may appoint any person or persons to act in an advisory capacity to the Company. Such a group shall be known as the Advisory Board.

Section 12. Limited Liability. Except as otherwise expressly provided by the LLC Act, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise (including, without limitation, those arising as member, owner or shareholder of another company, partnership or entity), shall be the debts, obligations and liabilities solely of the Company, and neither the LLC Member nor any Director or Officer shall be obligated personally for any such debt, obligation or liability of the Company solely by reason of being an LLC Member or Director or Officer of the Company.

Section 13. Capital Contributions. The LLC Member has contributed to the Company the amounts set forth in the books and records of the Company.

Section 14. Additional Contributions. The LLC Member is not required to make any additional capital contribution to the Company. However, the LLC Member may make additional capital contributions to the Company at any time upon the consent of such LLC Member. To the extent that the LLC Member makes an additional capital contribution to the Company, the LLC Member shall revise the books and records of the Company. The provisions of this LLC Agreement, including this Section 14, are intended to benefit the LLC Member and, to the fullest extent permitted by law, shall not be construed as conferring any benefit upon any creditor of the Company (and no such creditor of the Company shall be a third-party beneficiary of this LLC Agreement), and the LLC Member shall not have any duty or obligation to any creditor of the Company to make any contribution to the Company or to issue any call for capital pursuant to this LLC Agreement.

Section 15. **Allocation of Profits and Losses.** The Company's profits and losses shall be allocated to the LLC Member.

Section 16. **Distributions.** Distributions shall be made to the LLC Member at the times and in the aggregate amounts determined by the Board. Notwithstanding any provision to the contrary contained in this LLC Agreement, (i) the Company shall not be required to make a distribution to the LLC Member on account of its interest in the Company if such distribution would violate the LLC Act or any other applicable law, and (ii) the Company shall not make a distribution to the LLC Member using Regulatory Funds.

Section 17. **Books and Records.**

(a) The Board shall keep or cause to be kept complete and accurate books of account and records with respect to the Company's business. The books and records of the Company shall at all times be maintained by the Board at a location within the United States. The LLC Member and its duly authorized representatives shall have the right to examine the Company books, records and documents during normal business hours. The Company, and the Board on behalf of the Company, shall not have the right to keep confidential from the LLC Member any information that the Board would otherwise be permitted to keep confidential from the LLC Member pursuant to Section 18-305(c) of the LLC Act. The Company's books of account shall be kept using the method of accounting determined by the LLC Member. The Company's independent auditor shall be an independent public accounting firm selected by the Board.

(b) All books and records of the Company reflecting confidential information pertaining to the self-regulatory function of the Company (including but not limited to disciplinary matters, trading data, trading practices, and audit information) shall be retained in confidence by the Company and its personnel and will not be used by the Company for any non-regulatory purposes and shall not be made available to any person (including, without limitation, any Exchange Member) other than to personnel of the Commission, and those personnel of the Company, members of committees of the Company, members of the Board, hearing officers and other agents of the Company to the extent necessary or appropriate to properly discharge the self-regulatory responsibilities of the Company.

Section 18. **Reports.** The Board shall, after the end of each fiscal year, use reasonable efforts to cause the Company's independent accountants to prepare and transmit to the LLC Member as promptly as possible any such tax information as may be reasonably necessary to enable the LLC Member to prepare its federal, state and local income tax returns relating to such fiscal year.

Section 19. **Other Business.** Unless otherwise restricted by law, the LLC Member, and any Officer, Director, employee or agent of the Company and any Affiliate of the LLC Member may engage in or possess an interest in other business ventures (unconnected with the Company) of every kind and description, independently or with others. The Company shall not have any rights in or to such independent ventures or the income or profits therefrom by virtue of this LLC Agreement.

Section 20. Exculpation and Indemnification.

(a) Neither the LLC Member nor any Officer, Director, employee or agent of the Company nor any employee, representative, agent or affiliate of the LLC Member (collectively, the "Covered Persons") shall be liable to the Company or any other Person who is bound by this LLC Agreement for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Covered Person by this LLC Agreement, except that a Covered Person shall be liable for any such loss, damage or claim incurred by reason of such Covered Person's willful misconduct.

(b) To the fullest extent permitted by applicable law, a Covered Person shall be entitled to indemnification from the Company for any loss, damage or claim incurred by such Covered Person by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Covered Person by this LLC Agreement, except that no Covered Person shall be entitled to be indemnified in respect of any loss, damage or claim incurred by such Covered Person by reason of such Covered Person's willful misconduct with respect to such acts or omissions; provided, however, that any indemnity under this Section 20 by the Company shall be provided out of and to the extent of Company assets only, and the LLC Member shall not have personal liability on account thereof.

(c) To the fullest extent permitted by applicable law, expenses (including reasonable legal fees) incurred by a Covered Person defending any claim, demand, action, suit or proceeding shall, from time to time, be advanced by the Company prior to the final disposition of such claim, demand, action, suit or proceeding upon receipt by the Company of an undertaking by or on behalf of the Covered Person to repay such amount if it shall be determined that the Covered Person is not entitled to be indemnified as authorized in this Section 20.

(d) A Covered Person shall be fully protected in relying in good faith upon the records of the Company and upon such information, opinions, reports or statements presented to the Company by any Person as to matters the Covered Person reasonably believes are within such other Person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Company, including information, opinions, reports or statements as to the value and amount of the assets, liabilities or any other facts pertinent to the existence and amount of assets from which distributions to the LLC Member might properly be paid.

(e) To the extent that, at law or in equity, a Covered Person has duties (including fiduciary duties) and liabilities relating thereto to the Company or to any other Covered Person, a Covered Person acting under this LLC Agreement shall not be liable to the Company or to any other Covered Person who is bound by this LLC Agreement for its good faith reliance on the provisions of this LLC Agreement or any approval or authorization granted by the Company or any other Covered Person.

(f) The foregoing provisions of this Section 20 shall survive any termination of this LLC Agreement and are in addition to any indemnification of Covered Persons provided

by any agreement between the Company and a Covered Person, the By-Laws, by statute, or otherwise.

Section 21. Assignments. The LLC Member may assign, in whole or in part, its limited liability company interest in the Company (the "LLC Interest"); provided, however, such assignment will be subject to prior approval by the Securities and Exchange Commission (the "Commission") pursuant to the rule filing procedure under Section 19 of the Exchange Act. The assignment of the LLC Interest shall entitle the assignee to exercise the rights of the LLC Member of the Company under this LLC Agreement and to enjoy all of the benefits of the LLC Interest.

Section 22. Dissolution.

(a) The Company shall be dissolved and its affairs shall be wound up upon the first to occur of the following: (i) the consent of the LLC Member and a majority of the whole Board, (ii) the termination of the legal existence of the LLC Member or the occurrence of any other event that terminates the continued membership of the LLC Member in the Company unless the Company is continued without dissolution in a manner permitted by this LLC Agreement or the LLC Act or (iii) the entry of a decree of judicial dissolution under Section 18-802 of the LLC Act.

(b) Notwithstanding any other provision of this LLC Agreement, the Bankruptcy of the LLC Member shall not cause the LLC Member to cease to be an LLC Member of the Company and upon the occurrence of such an event, the Company shall continue without dissolution.

(c) In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority, set forth in Section 18-804 of the LLC Act.

(d) The Company shall terminate when (i) all of the assets of the Company, after payment of or due provision for all debts, liabilities and obligations of the Company, shall have been distributed to the LLC Member in the manner provided for in this LLC Agreement and (ii) the Certificate of Formation shall have been canceled in the manner required by the LLC Act.

Section 23. Benefits of LLC Agreement - No Third-Party Rights. None of the provisions of this LLC Agreement shall be for the benefit of or enforceable by any creditor of the Company or by any creditor of the LLC Member. Nothing in this LLC Agreement shall be deemed to create any right in any Person (other than Covered Persons and to the extent provided in Article II of the By-Laws, Exchange Members) not a party hereto, and this LLC Agreement shall not be construed in any respect to be a contract in whole or in part for the benefit of any third Person (other than the Covered Persons and to the extent provided in Article II of the By-Laws, Exchange Members).

Section 24. Severability of Provisions. Each provision of this LLC Agreement shall be considered severable and if for any reason any provision or provisions herein are determined to

be invalid, unenforceable or illegal under any existing or future law, such invalidity, unenforceability or illegality shall not impair the operation of or affect those portions of this LLC Agreement which are valid, enforceable and legal.

Section 25. Entire LLC Agreement. This LLC Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof.

Section 26. Binding Agreement. Notwithstanding any other provision of this LLC Agreement, the LLC Member agrees that this LLC Agreement constitutes a legal, valid and binding agreement of the LLC Member and is enforceable against the LLC Member, in accordance with its terms.

Section 27. Governing Law. This LLC Agreement shall be governed by and construed under the laws of the State of Delaware (without regard to conflict of laws principles), all rights and remedies being governed by said laws.

Section 28. Amendments.

(a) This LLC Agreement may be modified, altered, supplemented or amended by a resolution adopted by the Board and a written agreement executed and delivered by the LLC Member.

(b) Before any amendment to, or repeal of, any provision of this LLC Agreement shall be effective, those changes shall be submitted to the Board of Directors of the Company and if such amendment or repeal must be filed with or filed with and approved by the Commission, then the proposed changes to this LLC Agreement shall not become effective until filed with or filed with and approved by the Commission, as the case may be.

Section 29. Notices. Any notices required to be delivered hereunder shall be in writing and personally delivered, mailed or sent by telecopy, electronic mail or other similar form of rapid transmission, and shall be deemed to have been duly given upon receipt (i) in the case of the Company, to the Company at its address in Section 3, (ii) in the case of the LLC Member, to the LLC Member at its address as listed on Schedule B attached hereto and (iii) in the case of either of the foregoing, at such other address as may be designated by written notice to the other party.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound hereby, has duly executed this Amended and Restated Limited Liability Company Agreement as of the 21st day of December, 2018.

MEMBER:

MIAMI INTERNATIONAL HOLDINGS, INC.

By: _____

Thomas P. Gallagher
Chairman

SCHEDULE A

Definitions

A. Definitions

When used in this LLC Agreement, the following terms not otherwise defined herein have the following meanings:

An "affiliate" of, or person "affiliated" with a specific person, is a person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the person specified.

"Bankruptcy" means, with respect to any Person, if (A) such Person (i) makes an assignment for the benefit of creditors, (ii) files a voluntary petition in bankruptcy, (iii) is adjudged a bankrupt or insolvent, or has entered against it an order for relief, in any bankruptcy or insolvency proceedings, (iv) files a petition or answer seeking for itself any reorganization, arrangement, composition, readjustment, liquidation or similar relief under any statute, law or regulation, (v) files an answer or other pleading admitting or failing to contest the material allegations of a petition filed against it in any proceeding of this nature, or (vi) seeks, consents to or acquiesces in the appointment of a trustee, receiver or liquidator of the Person or of all or any substantial part of its properties; or (B) (i) 120 days after the commencement of any proceeding against the Person seeking reorganization, arrangement, composition, readjustment, liquidation or similar relief under any statute, law or regulation, the proceeding has not been dismissed, or (ii) within 90 days after the appointment without such Person's consent or acquiescence of a trustee, receiver or liquidator of such Person or of all or any substantial part of its properties, the appointment is not vacated or stayed, or within 90 days after the expiration of any such stay, the appointment is not vacated. The foregoing definition of "Bankruptcy" is intended to replace and shall supersede and replace the definition of "Bankruptcy" set forth in Sections 18-101(1) and 18-304 of the LLC Act.

"Board" or "Board of Directors" means the Board of Directors of the Company.

"By-Laws" has the meaning set forth in Section 9(c).

"Certificate of Formation" means the Certificate of Formation of the Company filed with the Secretary of State of the State of Delaware on January 30, 2018, as amended or amended and restated from time to time.

"Commission" means the Securities and Exchange Commission.

"Company" means MIAX Emerald, LLC, a Delaware limited liability company.

"Covered Persons" has the meaning set forth in Section 20.

"Directors" means the Persons elected or appointed to the Board of Directors from time to time in accordance with this LLC Agreement and the By-Laws, in their capacity as managers of the Company.

"Exchange Act" means the Securities Exchange Act of 1934, as amended.

"Exchange Member" means any registered broker or dealer that has been admitted to membership in the national securities exchange operated by the Company. An Exchange Member is not a member of the Company by reason of being an Exchange Member.

"LLC Act" has the meaning set forth in the preamble to this LLC Agreement.

"LLC Agreement" means this Limited Liability Company Agreement of the Company, together with the schedules attached hereto, as amended, restated, supplemented or otherwise modified from time to time.

"LLC Interest" has the meaning set forth in Section 21.

"LLC Member" means Miami International Holdings, Inc., as the sole member of the Company.

"Officer" means an officer of the Company described in Section 10.

"Operating Agreement" has the meaning set forth in the preamble to this LLC Agreement.

"Person" means any individual, corporation, partnership, joint venture, limited liability company, limited liability partnership, association, joint stock company, trust, unincorporated organization or other organization, whether or not a legal entity, and any governmental authority.

"Regulatory Funds" means fees, fines, or penalties derived from the regulatory operations of the Company. "Regulatory Funds" shall not be construed to include revenues derived from listing fees, market data revenues, transaction revenues, or any other aspect of the commercial operations of the Company, even if a portion of such revenues are used to pay costs associated with the regulatory operations of the Company.

B. Rules of Construction

Definitions in this LLC Agreement apply equally to both the singular and plural forms of the defined terms. The words "include" and "including" shall be deemed to be followed by the phrase "without limitation." The terms "herein," "hereof" and "hereunder" and other words of similar import refer to this LLC Agreement as a whole and not to any particular Section, paragraph or subdivision. The Section titles appear as a matter of convenience only and shall not affect the interpretation of this LLC Agreement. All Section, paragraph, clause, Exhibit or Schedule references not attributed to a particular document shall be references to such parts of this LLC Agreement.

SCHEDULE B

LLC Member

Name	Mailing Address	Limited Liability Company Interest
Miami International Holdings, Inc.	7 Roszel Road, 5th Floor Princeton, NJ 08540	100%

SCHEDULE C

Directors as of December 21, 2018

	Name	Classification
1.	Thomas P. Gallagher	Industry
2.	Lindsay L. Burbage	Non-Industry/Independent
3.	Marianne Deane	Non-Industry/Independent
4.	Leslie Florio	Non-Industry/Independent
5.	Kimberly M. Guadagno	Non-Industry/Independent
6.	Joseph M. Kyrillos Jr.	Non-Industry/Independent
7.	John E. McCormac	Non-Industry/Independent
8.	Robert D. Prunetti	Non-Industry/Independent

EXHIBIT A

BY-LAWS OF MIAX EMERALD, LLC

[Separate document]

BY-LAWS
OF
MIAX EMERALD, LLC
(a Delaware limited liability company)

These By-Laws have been established as the By-Laws of **MIAX Emerald, LLC**, a Delaware limited liability company (the "Company"), pursuant to the Amended and Restated Limited Liability Company Agreement of the Company, dated as of December 21, 2018, (as amended from time to time, the "LLC Agreement"), and, together with the LLC Agreement, constitute the limited liability company agreement of the Company within the meaning of the LLC Act (as defined in the LLC Agreement). In the event of any inconsistency between the LLC Agreement and these By-Laws, the provision of the LLC Agreement shall control.

ARTICLE I
Definitions

When used in these By-Laws, unless the context otherwise requires, the terms set forth below shall have the following meanings:

(a) "Act" means the Securities Exchange Act of 1934, as amended.

(b) An "affiliate" of, or person "affiliated" with a specific person, is a person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the person specified.

(c) "Board" or "Board of Directors" means the Board of Directors of the Company.

(d) "broker" shall have the same meaning as in Section 3(a)(4) of the Act.

(e) "Certificate of Formation" means the Certificate of Formation of the Company filed with the office of the Secretary of State of the State of Delaware on January 30, 2018, as amended or amended and restated from time to time.

(f) "Commission" means the Securities and Exchange Commission.

(g) "Company" means MIAX Emerald, LLC, a Delaware limited liability company.

(h) "day" means calendar day.

(i) "dealer" shall have the same meaning as in Section 3(a)(5) of the Act.

(j) "Director" means the persons elected or appointed to the Board of Directors from time to time in accordance with the LLC Agreement and these By-Laws in their capacity as managers of the Company.

(k) "Effective Date" means the date of effectiveness of these By-Laws.

(l) "Exchange" means the national securities exchange operated by the Company.

(m) "Exchange Contract" means a contract that is then listed for trading by the Exchange or that is contemplated by the then current business plan of the Company to be listed for trading by the Exchange within ninety (90) days following such date.

(n) "Exchange Member" means any registered broker or dealer that has been admitted to membership in the national securities exchange operated by the Company. An Exchange Member is not a member of the Company by reason of being an Exchange Member. An Exchange Member will have the status of a "member" of the Exchange as that term is defined in Section 3(a)(3) of the Act.

(o) "Executive Representative" means the person identified to the Company by an Exchange Member as the individual authorized to represent, vote, and act on behalf of the Exchange Member. An Exchange Member may change its Executive Representative or appoint a substitute for its Executive Representative upon giving notice thereof to the Secretary of the Company via electronic process or such other process as the Company may prescribe. An Executive Representative of an Exchange Member or a substitute shall be a member of senior management of the Exchange Member.

(p) "Independent Director" means a Director who has no material relationship with the Company or any affiliate of the Company, or any Exchange Member or any affiliate of any such Exchange Member; *provided*, however, that an individual who otherwise qualifies as an Independent Director shall not be disqualified from serving in such capacity solely because such Director is a Director of the Company or its LLC Member.

(q) "Independent member" means a member of any committee who has no material relationship with the Company or any affiliate of the Company, or any Exchange Member or any affiliate of any such Exchange Member, other than as a committee member. The term Independent member may but is not required to refer to an Independent Director who serves on a committee.

(r) "Industry Director" means a Director who (i) is or has served in the prior three years as an officer, director, or employee of a broker or dealer, excluding an outside director or a director not engaged in the day-to-day management of a broker or dealer; (ii) is an officer, director (excluding an outside director), or employee of an entity that owns more than 10% of the equity of a broker or dealer, and the broker or dealer accounts for more than 5% of the gross revenues received by the consolidated entity; (iii) owns more than 5% of the equity securities of any broker or dealer, whose investments in brokers or dealers exceed 10% of his or her net worth, or whose ownership interest otherwise permits him or her to be engaged in the day-to-day management of a broker or dealer; (iv) provides professional services to brokers or dealers, and such services constitute 20% or more of the professional revenues received by the Director or 20% or more of the gross revenues received by the Director's firm or partnership; (v) provides professional services to a director, officer, or employee of a broker, dealer, or corporation that owns 50% or

more of the voting stock of a broker or dealer, and such services relate to the director's, officer's, or employee's professional capacity and constitute 20% or more of the professional revenues received by the Director or member or 20% or more of the gross revenues received by the Director's or member's firm or partnership; or (vi) has a consulting or employment relationship with or provides professional services to the Company or any affiliate thereof or has had any such relationship or provided any such services at any time within the prior three years.

(s) "Industry member" means a member of any committee or hearing panel who (i) is or has served in the prior three years as an officer, director, or employee of a broker or dealer, excluding an outside director or a director not engaged in the day-to-day management of a broker or dealer; (ii) is an officer, director (excluding an outside director), or employee of an entity that owns more than 10% of the equity of a broker or dealer, and the broker or dealer accounts for more than 5% of the gross revenues received by the consolidated entity; (iii) owns more than 5% of the equity securities of any broker or dealer, whose investments in brokers or dealers exceed 10% of his or her net worth, or whose ownership interest otherwise permits him or her to be engaged in the day-to-day management of a broker or dealer; (iv) provides professional services to brokers or dealers, and such services constitute 20% or more of the professional revenues received by the Director or 20% or more of the gross revenues received by the Director's firm or partnership; (v) provides professional services to a director, officer, or employee of a broker, dealer, or corporation that owns 50% or more of the voting stock of a broker or dealer, and such services relate to the director's, officer's, or employee's professional capacity and constitute 20% or more of the professional revenues received by the Director or member or 20% or more of the gross revenues received by the Director's or member's firm or partnership; or (vi) has a consulting or employment relationship with or provides professional services to the Company or any affiliate thereof or has had any such relationship or provided any such services at any time within the prior three years.

(t) "List of Candidates" means the list of nominees for Member Representative Director positions as nominated by the Member Nominating Committee and amended by petitions filed by Exchange Members. The List of Candidates is submitted to Exchange Members for the final selection of nominees to be elected by the LLC Member to serve as Member Representative Directors.

(u) "LLC Act" means the Delaware Limited Liability Company Act, 6 §18-101, et seq.

(v) "LLC Member" means any person who maintains a direct ownership interest in the Company. The sole LLC Member of the Company shall be Miami International Holdings, Inc.

(w) "Member Nominating Committee" means the Member Nominating Committee elected pursuant to these By-Laws.

(x) "Member Representative Director" means a Director who has been appointed as such to the initial Board of Directors pursuant to Article II, Section 2.5 of these By-Laws, or elected by the LLC Member after having been nominated by the Member Nominating Committee or by an Exchange Member pursuant to these By-Laws and confirmed as the nominee of Exchange Members after majority vote of Exchange Members, if applicable. A Member Representative

Director may, but is not required to be an officer, director, employee, or agent of an Exchange Member.

(y) "Member Representative member" means a member of any committee or hearing panel appointed by the Board who has been elected or appointed after having been nominated by the Member Nominating Committee pursuant to these By-Laws and who is an officer, director, employee, or agent of an Exchange Member.

(z) "Nominating Committee" means the Nominating Committee elected pursuant to these By-Laws.

(aa) "Non-Industry Director" means a Director who is (i) an Independent Director; or (ii) any other individual who would not be an Industry Director.

(bb) "Non-Industry member" means a member of any committee who is (i) an Independent member; or (ii) any other individual who would not be an Industry member.

(cc) "person" shall mean a natural person, partnership, corporation, limited liability company, entity, government, or political subdivision, agency or instrumentality of a government.

(dd) "person associated with an Exchange Member" or "associated person of an Exchange Member" means any partner, officer, or director of an Exchange Member (or person occupying a similar status or performing similar functions), any person directly or indirectly controlling, controlled by, or under common control with such Exchange Member, or any employee of such Exchange Member.

(ee) "Record Date" means a date at least thirty-five (35) days before the date announced as the date for the annual meeting of the LLC Member and set as the last date on which Exchange Members may petition to add to the List of Candidates and used to determine whether Exchange Members are entitled to vote on the final List of Candidates.

(ff) "registered broker or dealer" means any registered broker or dealer, as defined in Section 3(a)(48) of the Act, that is registered with the Commission under the Act.

(gg) "Regulatory Funds" means fees, fines, or penalties derived from the regulatory operations of the Company. "Regulatory Funds" shall not be construed to include revenues derived from listing fees, market data revenues, transaction revenues, or any other aspect of the commercial operations of the Company, even if a portion of such revenues are used to pay costs associated with the regulatory operations of the Company.

(hh) "Rules" or "Exchange Rules" shall have the same meaning as set forth in Section 3(a)(27) of the Act.

(ii) "statutory disqualification" shall have the same meaning as in Section 3(a)(39) of the Act.

ARTICLE II
Board of Directors

Section 2.1 Powers

(a) The business and affairs of the Company shall be managed by its Board, except to the extent that the authority, powers and duties of such management shall be delegated to a committee or committees of the Board pursuant to these By-Laws or the Rules. The Board of Directors shall have the power to do any and all acts necessary, convenient or incidental to or for the furtherance of the purposes described herein, including all powers, statutory or otherwise. To the fullest extent permitted by applicable law and these By-Laws, the Board may delegate any of its powers to a committee appointed pursuant to Article IV or to any officer, employee or agent of the Company.

(b) The Board shall have the power to adopt, amend or repeal the Rules in accordance with Article IX, Section 9.1.

(c) The Board may adopt such rules, regulations, and requirements for the conduct of the business and management of the Company, not inconsistent with law, the Certificate of Formation, the LLC Agreement or these By-Laws, as the Board may deem proper. A Director shall, in the performance of such Director's duties, be fully protected, to the fullest extent permitted by law, in relying in good faith upon the books of account or reports made to the Company by any of its officers, by an independent certified public accountant, by an appraiser selected with reasonable care by the Board or any committee of the Board or by any agent of the Company, or in relying in good faith upon other records of the Company.

(d) In connection with managing the business and affairs of the Company, the Board shall consider applicable requirements for registration as a national securities exchange under Section 6(b) of the Act, including, without limitation, the requirements that (i) the Rules shall be designed to protect investors and the public interest and (ii) the Company shall be so organized and have the capacity to carry out the purposes of the Act and to enforce compliance by its "members," as that term is defined in Section 3 of the Act (such statutory members being referred to in these By-Laws as "Exchange Members") and persons associated with Exchange Members, with the provisions of the Act, the rules and regulations under the Act, and the Rules of the Exchange. In furtherance of the foregoing, the Board shall, among other things, approve the Exchange's budget which shall be adequate for the operation of the Exchange and for the Exchange to carry out its responsibilities under the Act. In connection therewith, the Board shall approve the Exchange's regulatory budget which shall be adequate for the regulation of the Exchange.

(e) In light of the unique nature of the Company and its operations and in light of the Company's status as a self-regulatory organization, the Board shall, to the fullest extent permitted by applicable law, take into account all factors that the Board deems relevant, including, without limitation, to the extent deemed relevant: (i) the potential impact thereof on the integrity, continuity and stability of the national securities exchange operated by the Company and the other operations of the Company, on the ability to prevent fraudulent and manipulative acts and practices and on investors and the public, and (ii) whether such would promote just and equitable principles of

trade, foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to and facilitating transactions in securities or assist in the removal of impediments to or perfection of the mechanisms for a free and open market and a national market system.

Section 2.2 Composition of the Board

(a) The number of Directors shall be not less than ten (10) including the Chief Executive Officer of the Company. The number of Directors may be fixed from time to time by the LLC Member at any time in its sole and absolute discretion, upon notice to all Directors subject to the minimum number provided for in this Section 2.2(a). No decrease in the number of Directors shall have the effect of shortening the term of any incumbent Director.

(b) At all times the Board of Directors shall consist of one (1) Director who is the Chief Executive Officer of the Company and sufficient numbers of Non-Industry (including Independent), Industry and Member Representative Directors to meet the following composition requirements:

(i) The number of Non-Industry Directors, including at least one Independent Director, shall equal or exceed the sum of the number of Industry Directors and Member Representative Directors elected pursuant to Article II, Section 2.4 or Section 2.5; and

(ii) The number of Member Representative Directors shall be at least twenty (20) percent of the Board.

(c) The Secretary shall collect from each nominee for Director such information as is reasonably necessary to serve as the basis for a determination of the nominee's classification as a Member Representative, Non-Industry or Independent Director, if applicable, and the Secretary shall certify to the Nominating Committee or Member Nominating Committee each nominee's classification, if applicable. Directors shall update the information submitted under this subsection at least annually and upon request of the Secretary, and shall report immediately to the Secretary any change in such information.

(d) A Director may not be subject to a statutory disqualification.

(e) The current Board of Directors consists of the Directors elected by the LLC Member and set forth on Schedule C to the LLC Agreement (the "Current Directors"). In addition to the Current Directors, interim Member Representative Directors shall be elected to the Board of Directors pursuant to the provisions set forth in Article II, Section 2.5 below (the "Interim Member Representative Directors"). The Current Directors and the Interim Member Representative Directors (together, the "Interim Directors") shall not be divided into classes as set forth in Section 2.3(b) and shall serve only until the first annual meeting of the LLC Member following the approval of the Company as a national securities exchange by the Commission, which meeting shall be held within ninety (90) days after the Exchange's application for registration as a national securities exchange is granted.

Section 2.3 Terms of Office

(a) The Board term of the Chief Executive Officer shall expire when such individual ceases to be Chief Executive Officer of the Company.

(b) Each of the Non-Industry and Industry Directors (including Member Representative Directors) shall be divided into three (3) classes, designated Class I, Class II and Class III, which shall be as nearly equal in number and classification as the total number of such Directors then serving on the Board permits. Directors other than the Chief Executive Officer shall serve staggered three-year terms, with the term of office of one class expiring each year. A Director may serve for any number of terms, consecutive or otherwise. In order to commence such staggered three-year terms, Directors in Class I shall hold office until the second annual election of the Board of Directors, Directors in Class II shall initially hold office until the third annual election of the Board of Directors, and Directors in Class III shall initially hold office until the fourth annual election of the Board of Directors. Commencing with the second annual election of the Board of Directors, the term of office for each class of Directors elected at such time shall be three years from the date of their election. Notwithstanding the foregoing, in the case of any new Director as contemplated by Article II, Section 2.2(a), such Director shall be added to a class, as determined by the Board at the time of such Director's initial election or appointment, and shall have an initial term expiring at the same time as the term of the class to which such Director has been added.

Section 2.4 Nomination and Election

(a) The Nominating Committee each year shall nominate Directors for each Director position standing for election at the annual meeting of the LLC Member that year. For positions requiring persons who qualify as Member Representative Directors, the Nominating Committee shall nominate only those persons whose names have been approved and submitted by the Member Nominating Committee, and approved by, if applicable, Exchange Members pursuant to the procedures set forth below in this Section 2.4.

(b) The Member Nominating Committee shall consult with the Nominating Committee, the Chairman and Chief Executive Officer, and shall solicit comments from Exchange Members for the purpose of approving and submitting names of candidates for election to the position of Member Representative Director. A Member Representative Director may, but is not required to be an officer, director, employee, or agent of an Exchange Member.

(c) Not later than sixty (60) days prior to the date announced as the date for the annual meeting of the LLC Member, the Member Nominating Committee shall report to the Nominating Committee and the Secretary the initial nominees for Member Representative Director positions on the Board that have been approved and submitted by the Member Nominating Committee. The Secretary shall promptly notify Exchange Members of those initial nominees. Exchange Members may identify other candidates ("Petition Candidates" for purposes of this Section 2.4) for the Member Representative Director positions by delivering to the Secretary, at least thirty-five (35) days before the date announced as the date for the annual meeting of the LLC Member (the "Record Date" for purposes of this Section 2.4), a written petition, which shall designate the

candidate by name and office and shall be signed by Executive Representatives of ten percent (10%) or more of the Exchange Members. An Exchange Member may endorse as many candidates as there are Member Representative Director positions to be filled. No Exchange Member, together with its affiliates, may account for more than fifty percent (50%) of the signatures endorsing a particular candidate, and any signatures of such Exchange Member, together with its affiliates, in excess of the fifty percent (50%) limitation shall be disregarded.

(d) Each petition for a Petition Candidate must include a completed questionnaire used to gather information concerning Member Representative Director candidates and must be filed with the Company (the Company shall provide the form of questionnaire upon the request of any Exchange Member).

(e) If no valid petitions from Exchange Members are received by the Record Date, the initial nominees approved and submitted by the Member Nominating Committee shall be nominated as Member Representative Directors by the Nominating Committee. If one or more valid petitions from Exchange Members are received by the Record Date, the Secretary shall include such additional nominees, along with the initial nominees nominated by the Member Nominating Committee, on a list of nominees (the "List of Candidates"). Upon completion, the List of Candidates shall be sent by the Secretary to all Exchange Members that were Exchange Members on the Record Date, by any means, including electronic transmission, to confirm the nominees for the Member Representative Director positions. The List of Candidates shall be accompanied by a notice regarding the time and date of an election to be held at least twenty (20) days prior to the annual LLC Member meeting to confirm the Exchange Members' selections of nominees for Member Representative Directors.

(f) With respect to the election held to determine the final nomination of Member Representative Directors, each Exchange Member shall have the right to cast one (1) vote for each available Member Representative Director nomination; provided, however, that any such vote must be cast for a person on the List of Candidates and that no Exchange Member, together with its affiliates, may account for more than twenty percent (20%) of the votes cast for a candidate, and any votes cast by such Exchange Member, together with its affiliates, in excess of such twenty percent (20%) limitation shall be disregarded. The votes shall be cast by written ballot, electronic transmission or any other means as set forth in a notice to the Exchange Members sent by the Company prior to such election. Only votes received prior to 5:00 p.m. Eastern Time on the date of the election shall count for the nomination of a Member Representative Director. The persons on the List of Candidates who receive the most votes shall be selected as the nominees for the Member Representative Director positions to be elected by the LLC Member. Tie votes by the Exchange Members shall be decided by the Member Nominating Committee.

Section 2.5 Interim Directors

(a) The Interim Directors of the Board of Directors shall be appointed by the LLC Member and shall serve until the first annual meeting of the LLC Member following the approval of the Company as a national securities exchange by the Commission, which meeting shall be held within ninety (90) days after the Exchange's application for registration as a national securities

exchange is granted. The Interim Member Representative Directors shall be appointed in accordance with the provisions of this Section 2.5.

(b) The Interim Member Representative Directors shall be appointed by the LLC Member by a consent in writing signed by the LLC Member pursuant to the provisions of Article III, Section 3.3 below and in accordance with this Section 2.5 (the "LLC Member Consent"). At least thirty (30) days prior to the date announced as the effective date for the LLC Member Consent (the "Consent Date"), the LLC Member shall report to the Secretary the initial nominees for Interim Member Representative Director positions on the Board that have been approved and submitted by the LLC Member (the "Initial Interim Member Representative Director Nominees"). At least twenty five (25) days prior to the Consent Date the Secretary shall notify the Exchange Member Applicants of those Initial Interim Member Representative Director Nominees (the "Interim Member Representative Director Nominee Notice"). Exchange Member Applicants may identify other candidates ("Interim Member Representative Director Petition Candidates" for purposes of this Section 2.5) for the Interim Member Representative Director positions by delivering to the Secretary, no later than fourteen (14) days after the date of the Interim Member Representative Director Nominee Notice (the "Interim Record Date" for purposes of this Section 2.5), a written petition, which shall designate the candidate by name and office and shall be signed by Executive Representatives of ten percent (10%) or more of the Exchange Member Applicants. An Exchange Member Applicant may endorse as many candidates as there are Interim Member Representative Director positions to be filled. No Exchange Member Applicant, together with its affiliates, may account for more than fifty percent (50%) of the signatures endorsing a particular candidate, and any signatures of such Exchange Member Applicant, together with its affiliates, in excess of the fifty percent (50%) limitation shall be disregarded. Exchange Member Applicants means persons and entities who have submitted the Initial Documents for membership in the Exchange, who would meet the qualifications for membership based on the information contained in the Initial Documents. Initial Documents means: either the Exchange Membership Pre-Application Survey or the Exchange Participant Connectivity Request Form.

(c) Each petition for an Interim Member Representative Director Petition Candidate must include a completed questionnaire used to gather information concerning Interim Member Representative Director candidates and must be filed with the Company (the Company shall provide the form of questionnaire upon the request of any Exchange Member Applicant).

(d) If no valid petitions from Exchange Member Applicants are received by the Interim Record Date, the Initial Interim Member Representative Director Nominees approved and submitted by the LLC Member pursuant to Section 2.5(b) shall be nominated as Interim Member Representative Directors. If one or more valid petitions from Exchange Member Applicants are received by the Interim Record Date, the Secretary shall include such additional nominees, along with the Initial Interim Member Representative Director Nominees, on a list of nominees (the "List of Interim Member Representative Director Candidates"). Upon completion, the List of Interim Member Representative Director Candidates shall be sent by the Secretary to all Exchange Member Applicants that were Exchange Member Applicants on the Interim Record Date by electronic transmission to confirm the nominees for the Interim Member Representative Director positions. The List of Interim Candidates shall be accompanied by a notice regarding the time and date of an election (the "Interim Election Notice") to be held electronically no sooner than five (5)

days after the Interim Election Notice is delivered to confirm the Exchange Member Applicants' selections of nominees for Interim Member Representative Directors.

(e) With respect to the election held to determine the final nomination of Interim Member Representative Directors, each Exchange Member Applicant shall have the right to cast one (1) vote for each available Interim Member Representative Director nomination; provided, however, that any such vote must be cast for a person on the List of Interim Candidates and that no Exchange Member Applicant, together with its affiliates, may account for more than twenty percent (20%) of the votes cast for a candidate, and any votes cast by such Exchange Member Applicant, together with its affiliates, in excess of such twenty percent (20%) limitation shall be disregarded. The votes shall be cast by electronic transmission as set forth in a notice to the Exchange Member Applicants sent by the Company prior to such election. Only votes received prior to 5:00 p.m. Eastern Time on the date of the election shall count for the nomination of a Member Representative Director. The persons on the List of Interim Candidates who receive the most votes shall be selected as the nominees for the Interim Member Representative Director positions to be elected by the LLC Member pursuant to the Consent on the Consent Date.

(f) In the event of a tie vote for two or more Interim Member Representative Director positions, the tie will be broken by lot in a manner determined by the LLC Member.

Section 2.6 Chairman of the Board

The Board shall appoint one of the Directors to serve as the Chairman of the Board ("Chairman"). The Chairman shall preside at all meetings of the Board at which the Chairman is present; provided, however, that if the Chairman is the Chief Executive Officer he or she shall not participate in executive sessions of the Board. The Chairman shall exercise such other powers and perform such other duties as may be assigned to the Chairman from time to time by the Board. If the Chairman is the Chief Executive Officer, the Board of Directors shall designate a Lead Director from among the Board's Independent Directors to preside over executive sessions of the Board. The Board shall publicly disclose the identity of the Lead Director, if any, and the means by which interested parties may communicate with such Lead Director.

Section 2.7 Vice Chairman

Each year following the annual election of the Directors, the Board may select a Vice Chairman of the Board (the "Vice Chairman") to serve for a term of one year and until a successor is elected or appointed and qualified. The Vice Chairman shall (i) preside over the meetings of the Board in the event the Chairman of the Board is absent or unable to do so, and (ii) exercise such other powers and perform such other duties as are delegated to the Vice Chairman of the Board by the Board.

Section 2.8 Vacancies

(a) Whenever any Director position becomes vacant prior to the election of a successor at the end of such Director's term, whether because of death, disability, disqualification, removal, or resignation, the Nominating Committee shall nominate, and the LLC Member shall elect, a

person satisfying the classification (Industry, Non-Industry, or Independent Director), if applicable, for the directorship as provided in Article II, Section 2.2(b) to fill such vacancy; *provided*, however, that if the remaining term of office of a Member Representative Director at the time of such Director's termination is not more than six months, during the period of vacancy the Board shall not be deemed to be in violation of Article II, Section 2.2(b) by virtue of such vacancy.

(b) If the LLC Member fills a vacancy resulting from a Member Representative Director position becoming vacant prior to the expiration of such Member Representative Director's term, or resulting from the creation of an additional Member Representative Director position required by an increase in the size of the Board, then the LLC Member shall follow the procedures set forth in this Section 2.8(b). In such an event, the Member Nominating Committee shall either (i) recommend an individual to the LLC Member to be elected to fill such vacancy or (ii) provide a list of recommended individuals to the LLC Member from which the LLC Member shall elect the individual to fill such vacancy. The LLC Member shall elect, pursuant to this Section 2.8(b), only individuals recommended by the Member Nominating Committee.

Section 2.9 Removal and Resignation

(a) Except as hereinafter provided, any Director may be removed or expelled with or without cause by the LLC Member, and may be removed by the Board of Directors in the manner provided by Article II, Section 2.9(b) below; provided, however, that any Member Representative Director may only be removed for cause, which shall include, without limitation, such Director being subject to a statutory disqualification.

(b) A Director shall be removed immediately upon a determination by the Board, by a majority vote of the remaining Directors: (i) that the Director no longer satisfies the classification for which the Director was elected; and (ii) that the Director's continued service as such would violate the compositional requirements of the Board set forth in Article II, Section 2.2(b).

(c) Any Director may resign at any time either upon notice of resignation to the Chairman of the Board, the President or the Secretary. Any such resignation shall take effect at the time specified therein or, if the time is not specified, upon receipt thereof, and the acceptance of such resignation, unless required by the terms thereof, shall not be necessary to make such resignation effective.

Section 2.10 Place of Meetings; Mode

Any meeting of the Board may be held at such place, within or without the State of Delaware, as shall be designated in the notice of such meeting, but if no such designation is made, then the meeting will be held at the principal business office of the Company. Members of the Board or any committee of the Board may participate in a meeting of the Board or committee by conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

Section 2.11 Regular Meetings

Regular meetings of the Board may be held, with or without notice, at such time or place as may from time to time be specified in a resolution adopted by the Board.

Section 2.12 Special Meetings

(a) Special meetings of the Board may be called on a minimum of two (2) days' notice to each Director by the Chairman, the Chief Executive Officer or the President, and shall be called by the Secretary upon the written request of three (3) Directors then in office.

(b) The person or persons calling a special meeting of the Board shall fix the time and place at which the meeting shall be held, and such time and place shall be specified in the notice of such meeting. Notice of any special meeting shall be given to each Director at his or her business address or such other address as he or she may have advised the Secretary to use for such purpose. If delivered, notice shall be deemed to be given when delivered to such address or to the Director to be notified. If mailed, such notice shall be deemed to be given five (5) business days after deposit in the United States mail, postage prepaid, of a letter addressed to the appropriate location. Notice may also be given by telephone, electronic transmission or other means not specified in this section, and in each such case shall be deemed to be given when actually received by the Director to be notified.

Section 2.13 Exchange Member Meetings

The Company shall not be required to hold meetings of the Exchange Members.

Section 2.14 Voting, Quorum and Action by the Board

Each Director shall be entitled to one (1) vote. At all meetings of the Board, the presence of a majority of the number of Directors then in office shall constitute a quorum for the transaction of business. If a quorum shall not be present at any meeting of the Board, the Directors present at such meeting may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. The act of a majority of the Directors present at any meeting at which there is a quorum shall be the act of the Board except as may be otherwise specifically provided by statute, the Certificate of Formation, the LLC Agreement or these By-Laws.

Section 2.15 Presumption of Assent

A Director of the Company who is present at a duly convened meeting of the Board or of a committee of the Board at which action on any corporate matter is taken shall be conclusively presumed to have assented to the action taken unless his or her dissent or election to abstain shall be entered in the minutes of the meeting or unless he or she shall file his or her written dissent or election to abstain to such action with the person acting as the secretary of the meeting before the adjournment of the meeting or shall forward such dissent or election to abstain by registered or

certified mail to the Secretary of the Company immediately after the adjournment of the meeting. Such right to dissent or abstain shall not apply to a Director who voted in favor of such action.

Section 2.16 Action in Lieu of Meeting

Unless otherwise restricted by statute, the Certificate of Formation, the LLC Agreement or these By-Laws, any action required or permitted to be taken at any meeting of the Board or any committee thereof may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing(s) or electronic transmission(s) are filed with the minutes of proceedings of the Board or the committee.

Section 2.17 Waiver of Notice

(a) Whenever notice is required to be given by law, the Certificate of Formation, the LLC Agreement or these By-Laws, a waiver thereof by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board, or members of a committee, need be specified in any waiver of notice.

(b) Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

Section 2.18 Compensation of Board and Committee Members

The Board may provide for reasonable compensation of the Chairman, the Directors and the members of committees. The Board may also provide for reimbursement of reasonable expenses incurred by such persons in connection with the business of the Company.

Section 2.19 Interpretation of By-Laws

The Board shall have the power to interpret these By-Laws and any interpretation made by it shall be final and conclusive.

Section 2.20 Conflicts of Interest; Contracts and Transactions Involving Directors

(a) A Director or a member of any committee may not participate in the consideration or decision of any matter relating to a particular Exchange Member, company, or individual if such Director or committee member has a material interest in, or a professional, business, or personal relationship with, that Exchange Member, company, or individual, or if such participation shall create an appearance of impropriety. In any such case, the Director or committee member shall recuse himself or herself or shall be disqualified. If a member of the Board or any committee is recused from consideration of a matter, any decision on the matter shall be by a vote of a majority of the remaining members of the Board or applicable committee.

(b) No contract or transaction between the Company and one or more of its Directors or officers, or between the Company and any other corporation, partnership, association, or other organization in which one or more of its Directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason if: (i) the material facts pertaining to such Director's or officer's relationship or interest and the contract or transaction are disclosed or are known to the Board or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative vote of a majority of the disinterested Directors, even though the disinterested Directors be less than a quorum; or (ii) the material facts are disclosed or become known to the Board or committee after the contract or transaction is entered into, and the Board or committee in good faith ratifies the contract or transaction by the affirmative vote of a majority of the disinterested Directors, even though the disinterested Directors be less than a quorum.

ARTICLE III
The LLC Member

Section 3.1 Annual Meeting; Election of Directors and Other Matters

(a) The annual meeting of the LLC Member shall be held at such place and time as determined by the Board for the purpose of electing Directors and members of the Nominating Committee and Member Nominating Committee, and for conducting such other business as may properly come before the meeting. Written notice of the annual meeting stating the place, date and hour of the meeting shall be given to the LLC Member not less than ten (10) nor more than sixty (60) days before the date of the meeting.

(b) The Interim Directors, including the Interim Member Representative Directors, shall be appointed prior to the Company's commencement of operations as an Exchange. The first annual meeting of the LLC Member shall be held within ninety (90) days after the Company's application for registration as a national securities exchange is granted.

Section 3.2 Special Meetings

Special meetings of the LLC Member, for any purpose or purposes, may be called by the Chairman, the Board, the Chief Executive Officer or the President, and shall be called by the Secretary at the request in writing of the LLC Member. Written notice of a special meeting stating the place, date and hour of the meeting and the purpose or purposes for which the meeting is called, shall be given to the LLC Member not less than ten (10) nor more than sixty (60) days before the date of the meeting. Business transacted at any special meeting of the LLC Member shall be limited to the purpose(s) stated in the notice of the meeting.

Section 3.3 Action in Lieu of Meeting

Any action upon which a vote of the LLC Member is required or permitted, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the LLC Member.

Section 3.4 Assignment

The LLC Member may not transfer or assign in whole or in part its limited liability company interest in the Company to any entity, unless such transfer or assignment shall be filed with and approved by the Commission under Section 19 of the Exchange Act and the rules promulgated thereunder.

ARTICLE IV
Committees

Section 4.1 Designation of Committees

(a) **Committees of the Board**. The committees of the Board shall consist of a Compensation Committee, an Audit Committee, a Regulatory Oversight Committee, an Appeals Committee, and such other committees as may be provided in these By-Laws or the Rules or as may be from time to time established by the Board. Committees shall have such authority as is vested in them by these By-Laws or the Rules, or as is delegated to them by the Board. All committees are subject to the control and supervision of the Board.

(b) **Committees of the Exchange.** The Exchange also shall have such other committees as may be provided in these By-Laws or the Rules or as may be from time to time created by the Board. Except as may be otherwise provided in these By-Laws, the Rules or the resolution of the Board establishing any such other committee, the Chairman or his or her designee, with the approval of the Board, shall appoint the members of such Exchange committees (other than the committees of the Board) and may designate, with the approval of the Board, a Chairman thereof. Except as may be otherwise provided in these By-Laws or the Rules, the Chairman or his or her designee may, at any time, with or without cause, remove any member of any such Exchange committee.

Section 4.2 Board Committees - Appointment and Removal; Vacancies; Term

(a) Except as may be otherwise provided in these By-Laws, the Rules or the resolution of the Board establishing any committee, the Chairman, with the approval of the Board, shall appoint, consistent with these By-Laws, the members of all committees of the Board, and the Chairman may, at any time, with or without cause, remove any member of a committee so appointed, with the approval of the Board. Each committee shall be comprised of at least three (3) people and except as provided in these By-Laws may include persons who are not members of the Board; provided, however, that such committee members who are not also members of the Board shall only participate in committee actions to the extent permitted by law. In appointing members to committees of the Board, the Chairman is responsible for determining that any such committee meets the composition requirements set forth in this Article IV.

(b) Upon request of the Secretary, each prospective committee member who is not a Director shall provide to the Secretary such information as is reasonably necessary to serve as the basis for a determination of the prospective committee member's classification as an Industry, Non-Industry, or Independent member. The Secretary shall certify to the Board each prospective

committee member's classification. Such committee members shall update the information submitted under this subsection at least annually and upon request of the Secretary, and shall report immediately to the Secretary any change in such information. A committee member may not be subject to a statutory disqualification.

(c) The term of office of a committee member shall terminate immediately upon a determination by the Board, by a majority vote of the Directors, (i) that the committee member no longer satisfies the classification for which the committee member was selected; and (ii) that the committee member's continued service as such would violate the compositional requirements of such committee set forth in this Article IV.

(d) Any vacancy occurring in a committee shall be filled by the Chairman for the remainder of the term, with the approval of the Board.

(e) Except as otherwise provided by the By-Laws, members of a committee shall hold office for a one-year period.

Section 4.3 Conduct of Proceedings

Except as otherwise provided in these By-Laws, the Rules, the Charter of the committee or by the Board by resolution, each committee may adopt its own rules of procedure and may meet at stated times or on such notice as such committee may determine. In the absence of any such established procedures, each committee shall conduct its business in the same manner as the Board of Directors conducts its business pursuant to Article II of these By-Laws. Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

Section 4.4 Voting, Quorum and Action by Committees

Each committee member shall be entitled to one (1) vote. Unless otherwise required by the By-Laws, the Rules or the Charter of the committee, the presence of a majority of the number of committee members serving on a committee shall constitute a quorum for the transaction of business of such committee. If a quorum shall not be present at any meeting of a committee, the committee members present at such meeting may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. The act of a majority of the committee members present at any meeting at which there is a quorum shall be the act of such committee except as may be otherwise specifically provided by statute or these By-Laws, the Rules or the Charter of the committee.

Section 4.5 Specified Board Committees

(a) **Compensation Committee.** The Chairman, with the approval of the Board, shall appoint a Compensation Committee consisting of Non-Industry Directors. The Compensation Committee shall consider and recommend compensation policies, programs, and practices for officers and other employees of the Company.

(b) **Audit Committee.** The Chairman, with the approval of the Board, shall appoint an Audit Committee consisting of Directors. A majority of the Audit Committee members shall be Non-Industry Directors. A Non-Industry Director shall serve as Chairman of the Audit Committee. The Audit Committee shall perform the following primary functions, as well as such other functions as may be specified in the charter of the Audit Committee: (i) provide oversight over the Company's financial reporting process and the financial information that is provided to the LLC Member and others; (ii) provide oversight over the systems of internal controls established by management and the Board and the Company's legal and compliance process; and (iii) direct and oversee all the activities of the Company's internal audit function, including but not limited to management's responsiveness to internal audit recommendations. The Audit Committee shall have exclusive authority to: (i) hire or terminate the head of the Company's Internal Audit Department; (ii) determine the compensation of the head of the Internal Audit Department; and (iii) determine the budget for the Internal Audit Department. The Internal Audit Department and its head shall report directly to the Audit Committee. The Audit Committee may, in its discretion, direct that the Internal Audit Department also report to senior management of the Company on matters the Audit Committee deems appropriate and may request that senior management of the Company perform such operational oversight as necessary and proper, consistent with preservation of the independence of the internal audit function.

(c) **Regulatory Oversight Committee.** The Chairman, with the approval of the Board, shall appoint a Regulatory Oversight Committee consisting of Non-Industry Directors. The Regulatory Oversight Committee shall oversee the adequacy and effectiveness of Exchange's regulatory and self-regulatory organization responsibilities, and shall be responsible for assessing the Exchange's regulatory performance and recommending compensation and personnel actions involving the Chief Regulatory Officer and senior regulatory personnel to the Board's Compensation Committee for action. The Regulatory Oversight Committee shall also assist the Board and committees of the Board in reviewing the regulatory plan and the overall effectiveness of Exchange's regulatory functions. In furtherance of its functions, the Regulatory Oversight Committee (i) shall review the Exchange's regulatory budget, which shall be approved by the Board of Directors, and shall specifically inquire into the adequacy of resources available in the budget for regulatory activities; and (ii) shall meet regularly with the Chief Regulatory Officer in executive session.

(d) **Appeals Committee.** The Chairman, with the approval of the Board, shall appoint an Appeals Committee. The Appeals Committee shall preside over all appeals related to disciplinary and adverse action determinations in accordance with the Exchange Rules. The Appeals Committee shall consist of one Independent Director, one Industry Director, and one Member Representative Director. If the Independent Director recuses himself or herself from an appeal, due to a conflict of interest or otherwise, such Independent Director may be replaced by a Non-Industry Director for purposes of the applicable appeal if there is no other Independent Director able to serve as the replacement.

(e) **Executive Committee.** The Chairman, with the approval of the Board, may appoint an Executive Committee consisting of Directors, which shall, to the fullest extent permitted by Delaware law and other applicable law, have and be permitted to exercise all the powers and authority of the Board in the management of the business and affairs of the Company

between meetings of the Board. The number of Non-Industry Directors on the Executive Committee shall equal or exceed the number of Industry Directors on the Executive Committee. The percentage of Independent Directors on the Executive Committee shall be at least as great as the percentage of Independent Directors on the whole Board, and the percentage of Member Representative Directors on the Executive Committee shall be at least as great as the percentage of Member Representative Directors on the whole Board.

(f) **Finance Committee**. The Chairman, with the approval of the Board, may appoint a Finance Committee consisting of Directors. A majority of the Finance Committee members shall be Non–Industry Directors. The Finance Committee shall advise the Board with respect to the oversight of the financial operations and conditions of the Company, including recommendations for Company's annual operating and capital budgets.

Section 4.6 Quality of Markets Committee.

The Chairman, with the approval of the Board, shall appoint a Quality of Markets Committee. The Quality of Markets Committee shall provide advice and guidance to the Board on issues relating to the fairness, integrity, efficiency and competitiveness of the information, order handling and execution mechanisms of the Exchange from the perspective of investors, both individual and institutional, retail firms, market making firms, Exchange listed companies and other market participants. The Quality of Markets Committee shall include broad representation of participants in the Exchange, including investors, market makers, integrated retail firms and order entry firms. The Quality of Markets Committee shall include a number of Member Representative members that is equal to at least 20 percent of the total number of members of the Quality of Markets Committee. The number of Non-Industry members of the Quality of Markets Committee shall equal or exceed the sum of the number of Industry members and Member Representative members.

Section 4.7 Business Conduct Committee

There shall be a Business Conduct Committee which shall not be a Board Committee but shall be a committee of the Exchange. The Chairman shall appoint a Business Conduct Committee composed of such number of Exchange Members and individuals who are not Exchange Members as the Chairman shall deem necessary, none of whom shall be Directors. The Business Conduct Committee or any panel thereof shall include at least one officer, director or employee of an Exchange Member.

The jurisdiction, function and powers shall be exercised by the Business Conduct Committee in accordance with the provisions set forth in the Exchange Rules.

ARTICLE V
Nominating Committees

Section 5.1 Election of Nominating Committee and Member Nominating Committee

The Nominating Committee and the Member Nominating Committee shall each be elected on an annual basis by vote of the LLC Member. The LLC Member shall appoint the initial Nominating Committee and Member Nominating Committee consistent with the compositional requirements of this Article V within fifteen (15) days after the Exchange's application for registration as a national securities exchange is granted. Because the first annual meeting of the LLC Member is intended to be held within ninety (90) days after the Exchange's application for registration as a national securities exchange is granted, the initial Nominating Committee and Member Nominating Committee shall serve until the second annual meeting of the LLC Member. Not later than sixty (60) days prior to the date announced as the date for each annual meeting of the LLC Member commencing with the second annual meeting of the LLC Member, the Nominating Committee and the Member Nominating Committee shall nominate candidates to serve on the succeeding year's Nominating Committee and Member Nominating Committee, as applicable, and notify the Secretary of such nominees. Such candidates shall be voted on by the LLC Member at the annual meeting of the LLC Member. Additional candidates for the Member Nominating Committee may be nominated and elected pursuant to the same process as provided for in Article II, Section 2.4.

Section 5.2 Nominating Committee

The Nominating Committee shall nominate candidates for election to the Board at the annual LLC Member meeting and all other vacant or new Director positions on the Board. The Nominating Committee, in making such nominations, is responsible for ensuring that candidates meet the compositional requirements of Article II, Section 2.2(b). The number of Non-Industry members on the Nominating Committee shall equal or exceed the number of Industry members on the Nominating Committee. A Nominating Committee member may not simultaneously serve on the Nominating Committee and the Board, unless such member is in his or her final year of service on the Board, and following that year, that member may not stand for election to the Board until such time as he or she is no longer a member of the Nominating Committee. No more than one (1) member of the Nominating Committee shall be a current Director, and such Director shall be a Non-Industry Director.

Section 5.3 Member Nominating Committee

The Member Nominating Committee shall nominate candidates for each Member Representative Director position on the Board that is to be elected by Exchange Members or the LLC Member under the terms of these By-Laws. Each member of the Member Nominating Committee shall be a Member Representative member and shall not be required to be a Director of the Company.

ARTICLE VI
Officers, Agents and Employees

Section 6.1 General

The officers of the Company shall include a Chief Executive Officer, a President, a Chief Financial Officer, a Chief Regulatory Officer, a Secretary, a Treasurer, and such other officers as in the Board's opinion are desirable for the conduct of the business of the Company, including but not limited to a Vice Chairman. Any two or more offices may be held by the same person, except that the offices of the President and Secretary may not be held by the same person. No person that is subject to any statutory disqualification may be an officer of the Company.

Section 6.2 Appointment and Tenure

Each officer of the Company shall be appointed by the Board on an annual basis, and shall hold office until his or her successor is appointed and qualified or until his or her earlier death, disability, disqualification, removal or resignation. An officer may serve for any number of terms, consecutive or otherwise.

Section 6.3 Resignation and Removal of Officers; Vacancies

(a) Any officer may resign at any time upon notice of resignation to the Chairman and Chief Executive Officer, the President, or the Secretary. Any such resignation shall take effect upon receipt of such notice or at any later time specified therein, or if the time is not specified, upon receipt thereof, and the acceptance of such resignation, unless required by the terms thereof, shall not be necessary to make such resignation effective.

(b) Any officer of the Company may be removed, with or without cause, by the Board. Such removal shall be without prejudice to the contractual rights of the affected officer, if any, with the Company.

(c) Vacancies in any office of the Company may be filled for the unexpired term by the Board.

Section 6.4 Compensation

The Compensation of the Chairman, the Vice Chairman and the Chief Executive Officer shall be fixed by the Compensation Committee. The salaries of all other officers and agents of the Company shall be fixed by the Chief Executive Officer, in consultation with the Compensation Committee.

Section 6.5 Powers and Duties; Delegation

Each of the officers of the Company shall, unless otherwise ordered by the Board, have such powers and duties as customarily pertain to the respective office, and such further powers and duties as from time to time may be conferred by the Board, or by an officer delegated such

authority by the Board. The Board may delegate the duties and powers of any officer of the Company to any other officer or to any Director for a specified period of time and for any reason that the Board may deem sufficient.

Section 6.6 Chief Executive Officer

The Chief Executive Officer shall be the chief executive officer of the Company, shall have general supervision over the business and affairs of the Company and shall serve at the pleasure of the Board. The Chief Executive Officer shall have all powers and duties usually incident to the office of the Chief Executive Officer, except as specifically limited by a resolution of the Board. The Chief Executive Officer shall exercise such other powers and perform such other duties as may be assigned to the Chief Executive Officer from time to time by the Board.

Section 6.7 President

The President shall, in the absence of the Chairman, the Vice Chairman and Chief Executive Officer, preside at all meetings of the Board at which the President is present. The President shall have general supervision over the operations of the Company. The President shall have all powers and duties usually incident to the office of the President, except as specifically limited by a resolution of the Board. The President shall exercise such other powers and perform such other duties as may be assigned to the President from time to time by the Board.

Section 6.8 Vice President

The Board shall appoint one or more Vice Presidents. In the absence or disability of the President or if the office of President becomes vacant, the Vice Presidents in the order determined by the Board, or if no such determination has been made, in the order of their seniority, shall perform the duties and exercise the powers of the President, subject to the right of the Board at any time to extend or restrict such powers and duties or to assign them to others. Any Vice President may have such additional designations in such Vice President's title as the Board may determine. The Vice Presidents shall generally assist the President in such manner as the President shall direct. Each Vice President shall exercise such other powers and perform such other duties as may be assigned to such Vice President from time to time by the Board, the Chief Executive Officer or the President. The term "Vice President" used in this Section shall include the positions of Executive Vice President, Senior Vice President, and Vice President.

Section 6.9 Chief Financial Officer

The Chief Financial Officer shall perform such duties and possess such powers as the Board or the Chief Executive Officer may from time to time prescribe. The Chief Financial Officer shall have the custody of the Company's funds and securities; shall keep full and accurate all books and accounts of the Company as shall be necessary or desirable in accordance with applicable law or generally accepted accounting principles; shall deposit all monies and other valuable effects in the name and to the credit of the Company as may be ordered by the Chief Executive Officer or the Board; shall cause the funds of the Company to be disbursed when such disbursements have

been duly authorized, taking proper vouchers for such disbursements; and shall render to the Board, at its regular meeting or when the Board so requires, an account of the Company.

Section 6.10 Chief Regulatory Officer

An officer of the Company with the position of Vice President, Senior Vice President or Executive Vice President shall be designated as the Chief Regulatory Officer of the Company. The Chief Regulatory Officer shall have general supervision of the regulatory operations of the Company, including responsibility for overseeing the Company's surveillance, examination, and enforcement functions and for administering any regulatory services agreements with another self-regulatory organization to which the Company is a party. The Chief Regulatory Officer shall report to the Regulatory Oversight Committee. The Chief Regulatory Officer shall meet with the Regulatory Oversight Committee of the Company in executive session at regularly scheduled meetings of such committee, and at any time upon request of the Chief Regulatory Officer or any member of the Regulatory Oversight Committee. The Chief Regulatory Officer may, but is not required to, also serve as the General Counsel of the Company.

Section 6.11 Secretary

The Secretary shall act as Secretary of all meetings of the Board at which the Secretary is present, shall record all the proceedings of all such meetings in a book to be kept for that purpose, shall have supervision over the giving and service of notices of the Company, and shall have supervision over the care and custody of the books and records of the Company. The Secretary shall be empowered to affix the Company's seal, if any, to documents, the execution of which on behalf of the Company under its seal is duly authorized, and when so affixed, may attest the same. The Secretary shall have all powers and duties usually incident to the office of Secretary, except as specifically limited by a resolution of the Board. The Secretary shall exercise such other powers and perform such other duties as may be assigned to the Secretary from time to time by the Board, the Chief Executive Officer or the President.

Section 6.12 Assistant Secretary

In the absence of the Secretary or in the event of the Secretary's inability or refusal to act, any Assistant Secretary, approved by the Board, shall exercise all powers and perform all duties of the Secretary. An Assistant Secretary shall also exercise such other powers and perform such other duties as may be assigned to such Assistant Secretary from time to time by the Board or the Secretary.

Section 6.13 Treasurer

The Treasurer shall have general supervision over the care and custody of the funds and over the receipts and disbursements of the Company and shall cause the funds of the Company to be deposited in the name of the Company in such banks or other depositories as the Board may designate. The Treasurer shall have supervision over the care and safekeeping of the securities of the Company. The Treasurer shall have all powers and duties usually incident to the office of Treasurer except as specifically limited by a resolution of the Board. The Treasurer shall exercise

such other powers and perform such other duties as may be assigned to the Treasurer from time to time by the Board, the Chief Executive Officer or the President.

Section 6.14 Assistant Treasurer

In the absence of the Treasurer or in the event of the Treasurer's inability or refusal to act, any Assistant Treasurer, approved by the Board, shall exercise all powers and perform all duties of the Treasurer. An Assistant Treasurer shall also exercise such other powers and perform such other duties as may be assigned to such Assistant Treasurer from time to time by the Board or the Treasurer.

ARTICLE VII
Indemnification and Insurance

Section 7.1 Right to Indemnification

Each person who was or is made a party or is threatened to be made a party to or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she or a person of whom he or she is the legal representative is or was a director or an officer of the Company or is or was serving at the request of the Company as a director, officer, employee or agent of any other corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to any employee benefit plan (hereinafter an "indemnitee"), whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the Company to the fullest extent authorized by the LLC Act, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Company to provide broader indemnification rights than the LLC Act permitted the Company to provide prior to such amendment), against all expense, liability and loss (including, without limitation, attorneys' fees, judgments, fines, excise taxes or penalties under the Employee Retirement Income Security Act of 1974, as amended, and amounts paid or to be paid in settlement) reasonably incurred by such indemnitee in connection therewith; provided, however, that except as provided in Section 7.3 with respect to proceedings seeking to enforce rights to indemnification, the Company shall indemnify any such indemnitee seeking indemnification in connection with a proceeding (or part thereof) initiated by such indemnitee only if such proceeding (or part thereof) was authorized by the Board of Directors.

Section 7.2 Right to Advancement of Expenses

The right to indemnification conferred in Section 7.1 shall include the right to be paid by the Company the expenses (including attorneys' fees) incurred in defending any such proceeding in advance of its final disposition (hereinafter an "advancement of expenses"); provided, however, that, if the LLC Act requires, an advancement of expenses incurred by an indemnitee in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the Company of an undertaking (hereinafter an "undertaking"), by or

on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "final adjudication") that such indemnitee is not entitled to be indemnified for such expenses under this Section 7.2 or otherwise.

Section 7.3 Right of Indemnitee to Bring Suit

If a claim under Section 7.1 or Section 7.2 is not paid in full by the Company within thirty (30) days after a written claim has been received by the Company, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be twenty (20) days, the indemnitee may at any time thereafter bring suit against the Company to recover the unpaid amount of the claim. If successful in whole or in part in any such suit, or in a suit brought by the Company to recover an advancement of expenses pursuant to the terms of an undertaking, the indemnitee shall also be entitled to be paid the expense of prosecuting or defending such suit.

In (i) any suit brought by the indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the indemnitee to enforce a right of an advancement of expenses) it shall be a defense that, and (ii) in any suit brought by the Company to recover an advancement of expenses pursuant to the terms of an undertaking, the Company shall be entitled to recover such expenses upon a final adjudication that, the indemnitee has not met any applicable standard for indemnification set forth in the LLC Act. Neither the failure of the Company (including its Board of Directors, independent legal counsel or the LLC Member) to have made a determination prior to the commencement of such action that indemnification of the indemnitee is proper in the circumstances because the indemnitee has met the applicable standard of conduct set forth in the Act, nor an actual determination by the Company (including its Board of Directors, independent legal counsel or the LLC Member) that the indemnitee has not met such applicable standard of conduct, shall create a presumption that the indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the indemnitee, be a defense to such suit. In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Company to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article VII or otherwise shall be on the Company.

Section 7.4 Non-Exclusivity of Rights

The right to indemnification and the advancement of expenses conferred in this Article VII shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provision of the LLC Agreement, provision of these By-Laws, agreement, vote of the LLC Member or disinterested directors or otherwise.

Section 7.5 Insurance

The Company may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Company or another corporation, partnership, joint venture, trust

or other enterprise against any expense, liability or loss, whether or not the Company would have the power to indemnify such person against such expense, liability or loss under the law.

Section 7.6 Indemnification of Employees and Agents of the Company

The Company may, to the extent authorized from time to time by the Board of Directors, grant rights to indemnification, and rights to the advancement of expenses, to any employee or agent of the Company to the fullest extent of the provisions of this Article VII with respect to the indemnification and advancement of expenses of directors and officers of the Company.

Section 7.7 Contract Rights

The rights to indemnification and to the advancement of expenses conferred in Section 7.1 and Section 7.2 shall be contract rights and such rights shall continue as to an indemnitee who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the indemnitee's heirs, executors and administrators.

Section 7.8 Company Not Liable

Except as provided in the Exchange Rules, the Company shall not be liable for any loss or damage sustained by any current or former Exchange Member growing out of the use or enjoyment by such Exchange Member of the facilities afforded by the Company (or any predecessor or successor thereof) or its subsidiaries.

ARTICLE VIII
Amendments; Emergency By-Laws

Section 8.1 By the LLC Member or Board

These By-Laws may be altered, amended, or repealed, or new By-Laws may be adopted, (i) by the written consent of the LLC Member, or (ii) at any regular or special meeting of the Board by a resolution adopted by the Board.

Section 8.2 Emergency By-Laws

The Board may adopt emergency By-Laws subject to repeal or change by action of the LLC Member which shall, notwithstanding any different provision of law, the Certificate of Formation, the LLC Agreement or these By-Laws, be operative during any emergency resulting from any nuclear or atomic disaster, an attack on the United States or on a locality in which the Company conducts its business or customarily holds meetings of the Board, any catastrophe, or other emergency condition, as a result of which a quorum of the Board or a committee thereof cannot readily be convened for action. Such emergency By-Laws may make any provision that may be practicable and necessary under the circumstances of the emergency.

Section 8.3 Authority to Take Action Under Extraordinary Market Conditions

The Board, or such person or persons as may be designated by the Board, in the event of extraordinary market conditions, shall have the authority to take any action regarding:

(a) the trading in or operation of the national securities exchange operated by the Company or any other organized securities markets that may be operated by the Company, the operation of any automated system owned or operated by the Company, and the participation in any such system or any or all persons or the trading therein of any or all securities; and

(b) the operation of any or all systems of Exchange Members, if, in the opinion of the Board or the person or persons hereby designated, such action is necessary or appropriate for the protection of investors or the public interest or for the orderly operation of the marketplace or the system.

Section 8.4 Commission Approval

Before any amendment to, alteration or repeal of any provision of the By-Laws of the Company under this Article VIII shall be effective, those changes shall be submitted to the Board and if the same must be filed with or filed with and approved by the Commission, then the proposed changes to the By-Laws of the Company shall not become effective until filed with or filed with and approved by the Commission, as the case may be.

ARTICLE IX
Exchange Authorities

Section 9.1 Rules

The Board, acting in accordance with the terms of these By-Laws and the Rules, shall be vested with all powers necessary for the government of the Company as an "exchange" within the meaning of the Act. To promote and enforce just and equitable principles of trade and business, to maintain high standards of commercial honor and integrity among Exchange Members, to collaborate with governmental and other agencies in the promotion of fair practices and the elimination of fraud, and in general to carry out the purposes of the Company and of the Act, the Board is hereby authorized to adopt such rules and such amendments thereto as it may, from time to time, deem necessary or appropriate. If any such rules or amendments thereto are approved by the Commission or otherwise become effective as provided in the Act, they shall become operative Exchange Rules as of the date of Commission approval or effectiveness under the Act unless a later operative date is declared by the Company. The Board is hereby authorized, subject to the provisions of these By-Laws and the Act, to administer, enforce, interpret, issue exemptions from, suspend, or cancel any Rules adopted hereunder.

Section 9.2 Disciplinary Proceedings

(a) The Board is authorized to establish procedures relating to disciplinary proceedings involving Exchange Members and their associated persons.

(b) The Board is authorized to impose appropriate sanctions applicable to Exchange Members, including censure, fine, suspension, or expulsion from membership, suspension or bar from being associated with all Exchange Members, limitation of activities, functions, and operations of an Exchange Member, or any other fitting sanction, and to impose appropriate sanctions applicable to persons associated with Exchange Members, including censure, fine, suspension, or barring a person associated with an Exchange Member from being associated with all Exchange Members, limitation of activities, functions, and operations of a person associated with an Exchange Member, or any other fitting sanction, for:

(i) a breach by an Exchange Member or a person associated with an Exchange Member of any covenant with the Company or its LLC Member;

(ii) violation by an Exchange Member or a person associated with an Exchange Member of any of the terms, conditions, covenants, and provisions of the By-Laws, the Rules, or the federal securities laws, including the rules and regulations adopted thereunder;

(iii) failure by an Exchange Member or person associated with an Exchange Member to: (A) submit a dispute for arbitration as may be required by the Rules; (B) appear or produce any document in the Exchange Member's or person's possession or control as directed pursuant to the Rules; (C) comply with an award of arbitrators properly rendered, where a timely motion to vacate or modify such award has not been made pursuant to applicable law or where such a motion has been denied; or (D) comply with a written and executed settlement agreement obtained in connection with an arbitration or mediation submitted for disposition; or

(iv) failure by an Exchange Member or person associated with an Exchange Member to adhere to any ruling, order, direction, or decision of or to pay any sanction, fine, or costs imposed by the Board or any entity to which the Board has delegated its powers.

Section 9.3 Membership Qualifications

(a) The Board shall have authority to adopt rules and regulations applicable to Exchange Members, applicants seeking to become Exchange Members, and persons associated with applicants or Exchange Members, establishing specified and appropriate standards with respect to the training, experience, competence, financial responsibility, operational capability, and such other qualifications as the Board finds necessary or desirable.

(b) The Board may from time to time make such changes in such rules, regulations, and standards as it deems necessary or appropriate.

(c) Uniform standards for regulatory and other access issues, such as admission to membership and conditions to becoming an Exchange market maker, shall be promulgated and applied on a consistent basis, and the Company shall institute safeguards to ensure fair and evenhanded access to all of its services and facilities.

Section 9.4 Fees, Dues, Assessments, and Other Charges

The Board shall have authority to fix and levy the amount of fees, dues, assessments, and other charges to be paid by Exchange Members and issuers and any other persons using any facility or system that the Company operates or controls; provided, however, that such fees, dues, assessments, and other charges shall be equitably allocated among Exchange Members and any other persons using any facility or system that the Company operates or controls. Any Regulatory Funds will not be used for non-regulatory purposes or distributed to the LLC Member, but rather, shall be applied to fund the legal and regulatory operations of the Company (including surveillance and enforcement activities), or, as the case may be, shall be used to pay restitution and disgorgement of funds intended for customers.

ARTICLE X
Miscellaneous Provisions

Section 10.1 Operational Date of Exchange

The Company has been formed in anticipation of its registration by the Commission as a national securities exchange. During the period between formation and the first date on which the Company commences operating a national securities exchange (the "Operational Date"):

(a) references in the Agreement and By-Laws to "the national securities exchange operated by the Company" shall be construed as references to "the national securities exchange to be operated by the Company"; and

(b) the Board of Directors of the Company may appoint members of the committees to be established under the By-Laws, but shall not be required to appoint all such committee members until the date immediately prior to the Operational Date.

Section 10.2 Fiscal Year

The fiscal year of the Company shall be as determined from time to time by the Board.

Section 10.3 Participation in Board and Committee Meetings

All meetings of the Board (and any committees of the Company) pertaining to the self-regulatory function of the Company (including disciplinary matters) shall be closed to all persons other than members of the Board, officers, staff, counsel or other advisors whose participation is necessary or appropriate to the proper discharge of such regulatory functions and any representatives of the Commission. In no event shall members of the Board of Directors of Miami International Holdings, Inc. who are not also members of the Board, or any officers, staff, counsel or advisors of Miami International Holdings, Inc. who are not also officers, staff, counsel or advisors of the Company (or any committees of the Company), be allowed to participate in any meetings of the Board (or any committee of the Company) pertaining to the self-regulatory function of the Company (including disciplinary matters).

Section 10.4 Books and Records; Confidentiality of Information and Records Relating to SRO Function

The books and records of the Company shall be maintained at a location within the United States. All books and records of the Company reflecting confidential information pertaining to the self-regulatory function of the Company (including but not limited to disciplinary matters, trading data, trading practices, and audit information) shall be retained in confidence by the Company and its personnel and will not be used by the Company for any non-regulatory purposes and shall not be made available to any person (including, without limitation, any Exchange Member) other than to personnel of the Commission, and those personnel of the Company, members of committees of the Company, members of the Board, hearing officers and other agents of the Company to the extent necessary or appropriate to properly discharge the self-regulatory responsibilities of the Company.

Section 10.5 Execution of Instruments, Contracts, etc.

(a) All checks, drafts, bills of exchange, notes, or other obligations or orders for the payment of money shall be signed in the name of the Company by such officer or officers or person or persons as the Board, or a duly authorized committee thereof, may from time to time designate. Except as otherwise provided by law, the Board, any committee given specific authority in the premises by the Board, or any committee given authority to exercise generally the powers of the Board during intervals between meetings of the Board may authorize any officer, employee, or agent, in the name of and on behalf of the Company, to enter into or execute and deliver deeds, bonds, mortgages, contracts, and other obligations or instruments, and such authority may be general or confined to specific instances.

(b) All applications, written instruments, and papers required by any department of the United States government or by any state, county, municipal, or other governmental authority may be executed in the name of the Company by any officer of the Company, or, to the extent designated for such purpose from time to time by the Board, by an employee or agent of the Company. Such designation may contain the power to substitute, in the discretion of the person named, one or more other persons.

Section 10.6 Power to Vote Stock

Unless otherwise instructed by the Board, the Chairman or the Chief Executive Officer of the Company shall have the power and authority on behalf of the Company to attend and to vote at any meeting of the stockholders, partners or equity holders of any corporation, partnership or any other entity in which the Company may hold stock, partnership or other equity interests, as the case may be, and may exercise on behalf of the Company any and all of the rights and powers incident to the ownership of such stock, partnership or other equity interest at such meeting, and shall have the power and authority to execute and deliver proxies, waivers and consents on behalf of the Company in connection with the exercise by the Company of the rights and powers incident to the ownership of such stock, partnership or other equity interest. The Board may from time to time confer like powers upon any other person or persons.

Section 10.7 Severability

If any provision of these By-Laws, or the application of any provision of these By-Laws to any person or circumstances, is held invalid, the remainder of these By-Laws and the application of such provision to other persons or circumstances shall not be affected.

Effective Date: December 21, 2018

Exhibit B

EXHIBIT B

Exhibit Request:

A copy of all written rulings, settled practices having the effect of rules, and interpretations of the Governing Board or other committee of the applicant in respect of any provisions of the constitution, by-laws, rules, or trading practices of the applicant which are not included in Exhibit A.

Response:

The Rules of the Exchange dated as of June 6, 2019, are attached.

MIAX Emerald, LLC

Rules

As of June 6, 2019

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CHAPTER I. DEFINITIONS

Rule 100. Definitions

ABBO or Away Best Bid or Offer
The term "**ABBO**" or "**Away Best Bid or Offer**" means the best bid(s) or offer(s) disseminated by other Eligible Exchanges (defined in Rule 1400(f)) and calculated by the Exchange based on market information received by the Exchange from OPRA.

Affiliate or affiliated with
The term "**affiliate**" of or person "**affiliated with**" another person means a person who, directly, or indirectly, controls, is controlled by, or is under common control with, such other person.

Aggregate Exercise Price
The term "**aggregate exercise price**" means the exercise price of an option contract multiplied by the number of units of the underlying security covered by the option contract.

American-Style Option
The term "**American-style option**" means an option contract that, subject to the provisions of Rule 700 (relating to the cutoff time for exercise instructions) and to the Rules of the Clearing Corporation, can be exercised on any business day prior to its expiration date and on its expiration date.

Associated Person or Person Associated with a Member
The term "**associated person**" or "**person associated with a Member**" means any partner, officer, director, or branch manager of a Member (or any person occupying a similar status or performing similar functions), any person directly or indirectly controlling, controlled by, or under common control with a Member, or any employee of a Member.

Bid
The term "**bid**" means a limit order or quote to buy one or more option contracts.

Board
The term "**Board**" means the Board of Directors of MIAX Emerald, LLC.

Book
The term "**Book**" means the electronic book of buy and sell orders and quotes maintained by the System.

By-Laws
The term "**By-Laws**" means the By-Laws of MIAX Emerald, LLC, as the same may be amended from time to time.

Call
The term "**call**" means an option contract under which the holder of the option has the right, in accordance with the terms of the option, to purchase from the Clearing Corporation the number of units of the underlying security covered by the option contract.

Class of Options or Option Class
The terms "**class of options**" or "**option class**" mean all option contracts covering the same underlying security.

Clearing Corporation
The term "**Clearing Corporation**" means The Options Clearing Corporation.

Clearing Member
The term "**Clearing Member**" means a Member that has been admitted to membership in the Clearing Corporation pursuant to the provisions of the rules of the Clearing Corporation.

Closing Purchase Transaction
The term "**closing purchase transaction**" means an Exchange Transaction which will reduce or eliminate a short position in an option contract.

Closing Writing Transaction
The term "**closing writing transaction**" means an Exchange Transaction which will reduce or eliminate a long position in an option contract.

Control
The term "**control**" means the power to exercise a controlling influence over the management or policies of a person, unless such power is solely the result of an official position with such person. Any person who owns beneficially, directly or indirectly, more than 20% of the voting power in the election of directors of a corporation, or more than 25% of the voting power in the election of directors of any other corporation which directly or through one or more affiliates owns beneficially more than 25% of the voting power in the election of directors of such corporation, shall be presumed to control such corporation.

Covered
The term "**covered**" in respect of a short position in a call option contract means that the writer's obligation is secured by a "specific deposit" or an "escrow deposit" meeting the conditions of Rule 610(f) or 610(h), respectively, of the Rules of the Clearing Corporation, or the writer holds in the same account as the short position, on a share-for-share basis, a long position either in the underlying security or in an option contract of the same class of options where the exercise price of the option contract in such long position is equal to or less than the exercise price of the option contract in such short position. The term "covered" in respect of a short position in a put option contract means that the writer holds in the same account as the short position, on a share-for-share basis, a long position in an option contract of the same type and class of options where the exercise price of the option contract in such long position is equal to or greater than the exercise price of the option contract in such short position.

Directed Order
A "**Directed Order**" is an order entered into the System by an Electronic Exchange Member with a designation for a Lead Market Maker (referred to as a "Directed Lead Market Maker"). Only Priority Customer Orders will be eligible to be entered into the System as a Directed Order by an Electronic Exchange Member.

Discretion
The term "**discretion**" means the authority of a broker or dealer to determine for a customer the type of option, the class or series of options, the number of contracts, or whether options are to be bought or sold.

EBBO
The term "**EBBO**" means the best bid or offer on the Exchange.

Electronic Exchange Member
The term "**Electronic Exchange Member**" or "**EEM**" means the holder of a Trading Permit who is not a Market Maker. Electronic Exchange Members are deemed "members" under the Exchange Act.

European-Style Option
The term "**European-style option**" means an option contract that, subject to the provisions of Rule 700 (relating to the cutoff time for exercise instructions) and to the Rules of the Clearing Corporation, can be exercised only on its expiration date.

Exchange
The term "**Exchange**" means the national securities exchange known as MIAX Emerald, LLC, or MIAX Emerald.

Exchange Act
The term "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

Exchange Transaction
The term "**Exchange Transaction**" means a transaction involving a security that is effected on the Exchange.

Exercise Price
The term "**exercise price**" means the specified price per unit at which the underlying security may be purchased or sold upon the exercise of an option contract.

Federal Reserve Board
The term "**Federal Reserve Board**" means the Board of Governors of the Federal Reserve System.

Foreign Broker-Dealer
The term "**foreign broker-dealer**" means any person or entity that is registered, authorized or licensed by a foreign governmental agency or foreign regulatory organization (or is required to be so registered, authorized or licensed) to perform the function of a broker or dealer in securities, or both. For the purposes of this definition, the terms "broker" and "dealer" have the same meaning as provided in Section 3(a)(4) and 3(a)(5) of the Exchange Act, except that a "broker" or "dealer" may be a bank.

He, Him or His
The terms "**he**," "**him**" or "**his**" shall be deemed to refer to persons of female as well as male gender, and to include organizations, as well as individuals, when the context so requires.

Help Desk
The term "**Help Desk**" means the Exchange's control room consisting of Exchange staff authorized to make certain trading determinations on behalf of the Exchange. The Help Desk shall report to and be supervised by a senior executive officer of the Exchange.

Individual Option
The term "**individual option**" means an option contract that is either a put or a call, covering a specific underlying security and having a specific exercise price and expiration date.

Lead Market Maker
The term "**Lead Market Maker**" means a Member registered with the Exchange for the purpose of making markets in securities traded on the Exchange and that is vested with the rights and responsibilities specified in Chapter VI of these Rules with respect to Lead Market Makers. When a Lead Market Maker is appointed to act in the capacity of a Primary Lead Market Maker, the additional rights and responsibilities of a Primary Lead Market Maker specified in Chapter VI of these Rules will apply.

Long Position
The term "**long position**" means a person's interest as the holder of one or more units of trading of a given option contract.

Market Makers
The term "**Market Makers**" refers to "Lead Market Makers", "Primary Lead Market Makers" and "Registered Market Makers" collectively.

Member
The term "**Member**" means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed "members" under the Exchange Act.

Membership
The term "**Membership**" refers to the trading privileges held by a Member.

MIAX
The term "**MIAX**" means Miami International Securities Exchange, LLC.

MIAX Emerald
The term "**MIAX Emerald**" means MIAX Emerald, LLC, or the Exchange.

MIAX PEARL
The term "**MIAX PEARL**" means MIAX PEARL, LLC.

NBBO
The term "**NBBO**" means the national best bid or offer as calculated by the Exchange based on market information received by the Exchange from OPRA.

Non-Customer
The term "**Non-Customer**" means a person or entity that is a broker or dealer in securities.

Non-Customer Order
The term "**Non-Customer Order**" means an order for the account of a Non-Customer.

Offer
The term "**offer**" means a limit order or quote to sell one or more option contracts.

Opening Purchase Transaction
The term "**opening purchase transaction**" means an Exchange Transaction which will create or increase a long position in an option contract.

Opening Writing Transaction
The term "**opening writing transaction**" means an Exchange Transaction which will create or increase a short position in an option contract.

OPRA
The term "**OPRA**" means the Options Price Reporting Authority, LLC.

Option Contract
The term "**option contract**" means a put or a call issued, or subject to issuance, by the Clearing Corporation pursuant to the Rules of the Clearing Corporation.

Options Principal
The term "**Options Principal**" means a person engaged in the management and supervision of the Member's business pertaining to option contracts that has responsibility for the overall oversight of the Member's options related activities on the Exchange.

Order
The term "**order**" means a firm commitment to buy or sell option contracts.

Outstanding
The term "**outstanding**" in respect of an option contract means an option contract which has been issued by the Clearing Corporation and has neither been the subject of a closing writing transaction nor has reached its expiration date.

Post-Only Order
The term "**Post-Only Order**" is defined in Rule 516(m).

Post-Only OQ
The term "**Post-Only OQ**" is defined in Rule 515.

Post-Only Quote
The term "**Post-Only Quote**" is defined in Rule 517(a)(1)(i).

Primary Lead Market Maker
The term "**Primary Lead Market Maker**" means a Lead Market Maker appointed by the Exchange to act as the Primary Lead Market Maker for the purpose of making markets in securities traded on the Exchange. The Primary Lead Market Maker is vested with the rights and responsibilities specified in Chapter VI of these Rules with respect to Primary Lead Market Makers.

Primary Market
The term "**primary market**" means the principal market in which an underlying security is traded.

Principal Shareholder
The term "**principal shareholder**" means any person beneficially owning, directly or indirectly, equity securities representing 5% of the voting power in elections of directors, or 5% of the net worth, or a 5% participation in the net profits, of a corporation.

Priority Customer
The term "**Priority Customer**" means a person or entity that (i) is not a broker or dealer in securities, and (ii) does not place more than 390 orders in listed options per day on average during a calendar month for its own beneficial account(s). The number of orders shall be counted in accordance with the following Interpretation and Policy .01 hereto.

Interpretations and Policies:

.01 For purposes of counting the number of orders in listed options per day on average during a calendar month for its own beneficial account(s) for designation as Priority Customer, or Professional Interest, under Rule 100:

(a) Except as noted below, each order of any type, regardless of the options exchange on which the order is entered or to which the order is routed, shall be counted as one (1) order toward the number of orders, except that Flexible Exchange Option (FLEX) orders shall not be counted.

(b) Complex orders comprised of eight (8) options legs or fewer shall be counted as a single order. For Complex orders comprised of nine (9) options legs or more, each leg shall count as its own separate order.

(c) A "parent" order placed for the beneficial account(s) of a person or entity not a broker or dealer that is broken into multiple subordinate "child" orders on the same side (buy/sell) and series as the parent order, by a broker or dealer or an algorithm housed at a broker or dealer or licensed from a broker dealer but housed with the customer, shall be counted as one (1) order, even if the orders are routed away. A "parent" order (including a strategy order) that is broken into multiple subordinate "child" orders on both sides (buy/sell) of a series and/or multiple series shall be counted as multiple orders, with each child order counted as a new and separate order per side and series.

(d) (1) An order that cancels and replaces a prior order shall be counted as a second order, or multiple new orders in the case of a Complex order comprised of nine (9) options legs or more, including "single-strike algorithms." A series of cancel and replace orders in an individual strike, which track the EBBO or NBBO, shall be counted as separate new orders. A cancel message is not an order.

(2) Except as noted in paragraph (d)(3) below, an order that cancels and replaces a subordinate "child" order on the same side and series as the "parent" order shall not be counted as a new order.

(3) An order that cancels and replaces a subordinate "child" order and results in multiple sides/series shall be counted as a new order per side and series. An order that cancels and replaces a subordinate "child" order pegged to the EBBO or NBBO, shall be counted as a new order each time a cancel/replace is used to follow the EBBO or NBBO.

Priority Customer Order
The term "**Priority Customer Order**" means an order for the account of a Priority Customer.

Priority Quote
The term "**priority quote**" has the meaning set forth in Rule 517(b)(1)(i).

Professional Interest
The term "**Professional Interest**" means (i) an order that is for the account of a person or entity that is not a Priority Customer, or (ii) an order or non-priority quote for the account of a Market Maker.

Public Customer
The term "**Public Customer**" means a person that is not a broker or dealer in securities.

Public Customer Order
The term "**Public Customer Order**" means an order for the account of a Public Customer.

Put
The term "**put**" means an option contract under which the holder of the option has the right, in accordance with the terms and provisions of the option, to sell to the Clearing Corporation the number of units of the underlying security covered by the option contract.

Quarterly Options Series
The term "**Quarterly Options Series**" is a series in an options class that is approved for listing and trading on the Exchange in which the series is opened for trading on any business day and that expires at the close of business on the last business day of a calendar quarter.

Quote or Quotation
The term "**quote**" or "**quotation**" means a bid or offer entered by a Market Maker that is firm and may update the Market Maker's previous quote, if any. The Rules of the Exchange provide for the use of different types of quotes, including Standard quotes and eQuotes, as more fully described in Rule 517. A Market Maker may, at times, choose to have multiple types of quotes active in an individual option.

Registered Market Maker
The term "**Registered Market Maker**" means a Member registered with the Exchange for the purpose of making markets in securities traded on the Exchange, who is not a Lead Market Maker and is vested with the rights and responsibilities specified in Chapter VI of these Rules with respect to Registered Market Makers.

Responsible Person
The term "**Responsible Person**" shall mean an individual designated by an organization that is the holder of a Trading Permit to represent the organization with respect to that Trading Permit in all matters relating to the Exchange. The Responsible Person must be a United States-based officer, director or management-level employee of the Trading Permit holder, who is responsible for the direct supervision and control of Associated Persons of that Trading Permit holder.

Rules
The term "**Rules**" means the Rules of the Exchange as the same may be in effect from time to time.

Rules of the Clearing Corporation
The term "**Rules of the Clearing Corporation**" means the Certificate of Incorporation, the By-laws and the Rules of the Clearing Corporation, and all written interpretations thereof, as the same may be in effect from time to time.

SEC or Commission
The term "**SEC**" or "**Commission**" means the United States Securities and Exchange Commission.

Series of Options
The term "**series of options**" means all option contracts of the same class having the same exercise price and expiration date.

Short Position
The term "**short position**" means a person's interest as the writer of one or more units of trading of a given option contract.

Short Term Option Series
The term **"Short Term Option Series"** is a series in an option class that is approved for listing and trading on the Exchange in which the series is opened for trading on any Monday, Tuesday, Wednesday, Thursday or Friday that is a business day and that expires on the Monday, Wednesday or Friday of the next business week, or, in the case of a series that is listed on a Friday and expires on a Monday, is listed one business week and one business day prior to that expiration. If a Tuesday, Wednesday, Thursday or Friday is not a business day, the series may be opened (or shall expire) on the first business day immediately prior to that Tuesday, Wednesday, Thursday or Friday, respectively. For a series listed pursuant to this section for Monday expiration, if a Monday is not a business day, the series shall expire on the first business day immediately following that Monday.

SRO
The term "**SRO**" means a self-regulatory organization as defined in Section 3(a)(26) of the Exchange Act.

System
The term "**System**" means the automated trading system used by the Exchange for the trading of securities.

Trading Permit
The term "**Trading Permit**" means a permit issued by the Exchange that confers the ability to transact on the Exchange.

Type of Option
The term "**type of option**" means the classification of an option contract as either a put or a call.

Uncovered
The term "**uncovered**" in respect of a short position in an option contract means that the short position is not covered.

Underlying Security
The term "**underlying security**" in respect of an option contract means the security which the Clearing Corporation shall be obligated to sell (in the case of a call option contract) or purchase (in the case of a put option contract) upon the valid exercise of the option contract.

Voluntary Professional
The term "**Voluntary Professional**" means any Public Customer that elects, in writing, to be treated in the same manner as a broker or dealer in securities for purposes of Rule 514, as well as the Exchange's schedule of fees.

[Adopted: December 20, 2018; amended May 17, 2019 (SR-EMERALD-2019-18)]

CHAPTER II. ACCESS

Rule 200. Trading Permits

(a) **Issuance**. The Exchange shall issue Trading Permits that confer the ability to transact on the Exchange. There is no limit on the number of Trading Permits that may be issued by the Exchange; however the Exchange shall have the authority to limit or decrease the number of Trading Permits it has determined to issue. The Exchange shall announce in advance any limitation or decrease it plans to impose pursuant to this Rule. In the event the Exchange imposes a limitation or decrease pursuant to this Rule, the Exchange, in doing so, may not eliminate the ability of an existing Member to trade on the Exchange unless the Exchange is permitted to do so pursuant to a rule filing submitted to the Commission under Section 19(b) of the Exchange Act. In addition, in no event shall the Exchange act in a manner under this subparagraph that does not comply with the provisions of Section 6(c)(4) of the Exchange Act.

(b) **Qualification Requirements**. A Member must be registered as a broker-dealer pursuant to Section 15 of the Exchange Act. If a Member intends to transact business with the public, it must obtain approval to transact business with the public pursuant to Rule 1300 or be approved to transact business with the public by another national securities exchange as set forth in Rule 1300.

(c) **Application Process**.

(1) **Holders of MIAX or MIAX PEARL Trading Permits.** A holder of a MIAX or MIAX PEARL trading permit in good standing is eligible to receive one MIAX Emerald Trading Permit in the same Membership category to trade on MIAX Emerald (i.e., a MIAX Primary Lead Market Maker Member is eligible to become a MIAX Emerald Primary Lead Market Maker Member, a MIAX Lead Market Maker Member is eligible to become a MIAX Emerald Lead Market Maker Member, a MIAX Registered Market Maker Member is eligible to become a MIAX Emerald Registered Market Maker Member, a MIAX Electronic Exchange Member is eligible to become a MIAX Emerald Electronic Exchange Member, a MIAX PEARL Market Maker is eligible to become a MIAX Emerald Registered Market Maker and a MIAX PEARL Electronic Exchange Member is eligible to become a MIAX Emerald Electronic Exchange Member). A holder of a MIAX or MIAX PEARL trading permit who wishes to apply to the Exchange is not required to complete and submit an Exchange application. Instead only Exchange forms concerning election to trade on the Exchange, submitting to Exchange jurisdiction, and operational matters need be completed and tendered.

(2) **Applicants Not Holding MIAX or MIAX PEARL Trading Permits**. An applicant not holding a MIAX or MIAX PEARL trading permit seeking to hold a MIAX Emerald Trading Permit ("Applicant") must submit an application to the Exchange in accordance with such procedures as shall be established by the Exchange. In addition, the following shall apply:

(i) Each Applicant shall promptly update the application materials submitted to the Exchange if any of the information provided in these materials becomes inaccurate or incomplete after the date of submission of the application to the Exchange and prior to any approval of the application.

(ii) The Exchange shall investigate each Applicant applying to be a Member (with the exception of any Applicant that was a Member within 9 months prior to the date of receipt of that Applicant's application by the Exchange, and any Applicant that was investigated by the Exchange within 9 months prior to the date of receipt of that Applicant's application by the Exchange). The Exchange may investigate any Applicant that is not required to be investigated pursuant to this paragraph. In connection with an investigation conducted pursuant to this paragraph, the Exchange may (x) conduct a fingerprint based criminal records check of the Applicant and its Responsible Person; or (y) utilize the results of a fingerprint based criminal records check of the Applicant and its Responsible Person conducted by the Exchange or another self-regulatory organization within the prior year.

(iii) The Exchange may approve an application submitted pursuant to this Rule only if any investigation pursuant to paragraph (ii) above has been completed, and any applicable orientation and/or exam requirements established by the Exchange have been satisfied.

(iv) Each Applicant that submits an application pursuant to paragraph (c) of this Rule shall submit to the Exchange any additional information requested by the Exchange in connection with the Exchange's review of the application and may be required to appear before the Exchange for an in-person interview or interviews.

(v) Upon completion of the application process, the Exchange shall determine whether to approve or disapprove the application, unless there is just cause for delay. One such just cause for delay is when an Applicant is the subject of an inquiry, investigation, or proceeding conducted by a self-regulatory organization or governmental authority that involves the Applicant's fitness to be a Member. In such an instance, the Exchange need not act on any application submitted by that Applicant until the matter has been resolved.

(vi) Written notice of the action regarding an application to become a Member, specifying in the case of disapproval of an application the grounds thereof, shall be provided to the Applicant.

(d) **Membership in Another Registered Options Exchange**. Every Trading Permit holder must have and maintain membership in another registered options exchange other than the MIAX or MIAX PEARL (that is not registered solely under Section 6(g) of the Exchange Act). If such other registered options exchange has not been designated by the Commission, pursuant to Rule 17d-1 under the Exchange Act, to examine Members for compliance with financial responsibility rules, then such Applicant must have and maintain a membership in FINRA.

(e) **Rights of Member**. No rights shall be conferred upon a Member except those set forth in the By-Laws or Rules as amended from time to time. A Trading Permit shall not convey any ownership interest in the Exchange. Trading Permits may not be leased and are not transferable except in the event of a change in control or corporate reorganization involving a Member. In such a case, Member status may be transferred to a qualified affiliate or successor upon written notice to the Exchange.

(f) **Fees and Charges for Trading Permits**. Trading Permits shall be subject to such fees and charges as are established by the Exchange from time to time pursuant to Rule 1202 and Rule 1203 and the Exchange Fee Schedule. An organization holding a Trading Permit in its name shall be responsible for paying all fees and charges for that Trading Permit. An individual holding a Trading Permit in his or her name shall be responsible for paying all fees and charges for that Trading Permit.

(g) **Exchange Jurisdiction over Trading Members**. Every Member shall be subject to the regulatory jurisdiction of the Exchange under the Exchange Act and the Rules, including without limitation the Exchange's disciplinary jurisdiction under Chapter X of the Rules.

[Adopted: December 20, 2018]

Rule 201. Denial of and Conditions to Being a Member

(a) The Exchange shall deny Membership where an Applicant (as defined in Rule 200(c)(2)) has failed a required Membership test.

(b) The Exchange may deny (or may condition) Membership or may prevent a person from becoming associated (or may condition an association) with a Member for the same reasons that the Commission may deny or revoke a broker-dealer registration and for those reasons required or allowed under the Exchange Act.

(c) The Exchange also may deny (or may condition) Membership or may prevent a person from becoming associated (or may condition an association) with a Member when the Applicant:

(1) is a broker-dealer and (i) has a net worth (excluding personal assets) below $25,000 if the applicant is an individual, (ii) has a net worth (excluding personal assets) below $50,000 if the applicant is an organization, (iii) has financial difficulties involving an amount that is more than 5% of the applicant's net worth, or (iv) has a pattern of failure to pay just debts;

(2) is unable satisfactorily to demonstrate a capacity to adhere to all applicable Exchange, Commission, Clearing Corporation, and Federal Reserve Board policies, rules, and regulations, including those concerning record-keeping, reporting, finance, and trading procedures; or

(3) for such other cause as the Exchange reasonably may decide.

(d) The Exchange may determine not to permit a Member or a person associated with a Member to continue in Membership or association with a Member or may condition such continuance as a Member if the Member:

(1) fails to meet any of the qualification requirements for Membership or association after the Membership or association has been approved;

(2) fails to meet any condition placed by the Exchange on such Membership or association; or

(3) violates any agreement with the Exchange.

(e) Any decision made by the Exchange pursuant to paragraphs (a), (b) or (c) this Rule must be consistent with both the provisions of this Rule and the provisions of the Exchange Act.

(f) Any Applicant who has been denied Membership or association with a Member or granted only conditional Membership or association pursuant to paragraph (a), (b) or (c) of this Rule, and any Member or person associated with a Member who is not permitted to continue in Membership or association or whose continuance in Membership or association is conditioned pursuant to paragraph (d) of this Rule, may appeal the Exchange's decision under Chapter XI (Hearings, Review and Arbitration). No determination of the Exchange to discontinue or condition a person's Membership or association with a Member pursuant to paragraph (d) of this Rule shall take effect until the review procedures under Chapter XI (Hearings, Review and Arbitration) have been exhausted or the time for review has expired.

(g) Without prior Commission approval, the Exchange or any entity with which it is affiliated shall not directly or indirectly through one or more intermediaries acquire or maintain an ownership interest in an Exchange Member. In addition, without prior Commission approval, no Member shall be or become affiliated with (1) the Exchange; or (2) any affiliate of the Exchange. Nothing herein shall prohibit a Member from acquiring or holding an equity interest in (i) Miami International Holdings, Inc. that is permitted by the Certificate of Incorporation of Miami International Holdings, Inc. or (ii) MIAX Emerald that is permitted by the Amended and Restated Limited Liability Company Agreement of MIAX Emerald.

(h) Nothing in this Rule shall prohibit any Member from being or becoming an affiliate of the Exchange, or any facility of the Exchange, or an affiliate of any affiliate of the Exchange or any facility of the Exchange solely by reason of any officer, director or partner of such Member being or becoming a Director or Advisory Board member of Miami International Holdings, Inc. or MIAX Emerald.

[Adopted: December 20, 2018]

Rule 202. Persons Associated with Member

(a) Persons associated with Members shall be bound by the By-Laws and Rules of the Exchange and of the Clearing Corporation. The Exchange may bar a person from becoming or continuing to be associated with a Member if such person does not agree in writing, in a manner and form prescribed by the Exchange, to furnish the Exchange with information with respect to such person's relationship and dealings with the Member, and information reasonably related to such person's other securities business, as may be required by the Exchange, and to permit the examination of its books and records by the Exchange to verify the accuracy of any information so supplied.

(b) Each associated person of a Member that is required to be disclosed on Exchange Act Form BD as a direct owner or executive officer is required to submit to the Exchange pursuant to Rule 200 an application for approval to become

associated with the Member in that capacity. No person may become associated with a Member in the capacity of a direct owner or executive that is required to be disclosed on Form BD unless and until the Exchange approves the association.

(c) A claim of any associated person required to be approved by the Exchange pursuant to paragraph (b) of this Rule against the Member with which that person is associated shall be subordinate in right of payment to customers and other Members.

[Adopted: December 20, 2018]

Rule 203. Qualification and Registration of Members and Associated Persons

(a) **Registration of Members and Associated Persons Engaged in the Securities Business.** Members that are individuals and associated persons of Members engaged or to be engaged in the securities business of a Member shall be registered with the Exchange in the category of registration appropriate to the function to be performed in a form and manner prescribed by the Exchange. Before the registration can become effective, the individual Member or individual associated person shall submit the appropriate application for registration, pass the Securities Industry Essentials Examination ("SIE"), pass a qualification examination appropriate to the category of registration in a form and manner prescribed by the Exchange and submit any required registration and examination fees. A Member shall not maintain a registration with the Exchange for any person: (1) who is no longer active in the Member's securities business; (2) who is no longer functioning in the registered capacity; or (3) where the sole purpose is to avoid an examination requirement. A Member shall not make application for the registration of any person where there is no intent to employ that person in the Member's securities business. A Member may, however, maintain or make application for the registration of an individual who performs legal, compliance, internal audit, back-office operations, or similar responsibilities for the Member, or a person who performs administrative support functions for registered personnel, or a person engaged in the securities business of a foreign securities affiliate or subsidiary of the Member.

(b) **Persons Exempt from Registration.** The following individual Members and individual associated persons of Members are exempt from the registration requirements set forth in paragraph (a):

(1) individual associated persons whose functions are solely and exclusively clerical or ministerial;

(2) individual Members and individual associated persons who are not actively engaged in the securities business;

(3) individual associated persons whose functions are related solely and exclusively to the Member's need for nominal corporate officers or for capital participation; or

(4) Individual associated persons whose functions are related solely and exclusively to:

(i) transactions in commodities;

(ii) transactions in security futures; and/or

(iii) effecting transactions on the floor of another national securities exchange and who are registered as floor members with such exchange.

(c) **Securities Trader Principal.**

(1) Members that are individuals and associated persons of Members included within the definition of Options Principal in Rule 100 and who will have supervisory responsibility over the securities trading activities described in Rule 203(d) shall become qualified and registered as a Securities Trader Principal. To qualify for registration as a Securities Trader Principal, such person shall become qualified and registered as a Securities Trader

under Rule 1302(e) and pass the SIE and the General Securities Principal qualification examination (Series 24). A person who is qualified and registered as a Securities Trader Principal under this subparagraph (1) may only have supervisory responsibility over the activities specified in Rule 203(d), unless such person is separately qualified and registered in another appropriate principal registration category, such as the General Securities Principal registration category.

(2) A person who is registered as a General Securities Principal shall not be qualified to supervise the trading activities described in Rule 203(d), unless such person has also become qualified and registered as a Securities Trader under Rule 1302(e) and become registered as a Securities Trader Principal.

(d) **Securities Trader.**

(1) Members that are individuals and associated persons of Members must register with the Exchange as a Securities Trader if, with respect to transactions in equity, preferred or convertible debt securities, or foreign currency options on the Exchange, such person is engaged in proprietary trading, the execution of transactions on an agency basis, or the direct supervision of such activities, other than any person associated with a Member whose trading activities are conducted principally on behalf of an investment company that is registered with the Commission pursuant to the Investment Company Act of 1940 and that controls, is controlled by or is under common control, with the Member.

(2) Before registration as a Securities Trader as defined in subparagraph (1) hereof may become effective, an applicant must become qualified as a Securities Trader under Rule 1302(e).

(3) A person registered as a Securities Trader shall not be qualified to function in any other registration category, unless he or she is also qualified and registered in such other registration category.

(e) **Financial/Operations Principal.** Each Member subject to Exchange Act Rule 15c3-1 shall designate a Financial/Operations Principal. The duties of a Financial/Operations Principal shall include taking appropriate actions to assure that the Member complies with applicable financial and operational requirements under the Rules and the Exchange Act, including but not limited to those requirements relating to the submission of financial reports and the maintenance of books and records. Each Financial/Operations Principal is required to have successfully completed the Financial and Operations Principal Examination (Series 27). Each Financial/Operations Principal designated by a Member shall be registered in that capacity with the Exchange in a form and manner prescribed by the Exchange. A Financial/Operations Principal of a Member may be a full-time employee, a part-time employee or independent contractor of the Member.

(f) **Chief Compliance Officer.** Each Member and Member organization that is a registered broker-dealer shall designate a Chief Compliance Officer on Schedule A of Form BD. An individual designated as a Chief Compliance Officer is required to register with the Exchange and pass the appropriate heightened qualification examination(s) as prescribed by the Exchange. A person who has been designated as a Chief Compliance Officer on Schedule A of Form BD for at least two years immediately prior to January 1, 2002, and who has not been subject within the last ten years to:

(1) any statutory disqualification as defined in Section 3(a)(39) of the Exchange Act;

(2) a suspension;

(3) the imposition of a fine of $5,000 or more for a violation of any provision of any securities law or regulation or any agreement with, rule or standard of conduct of any securities governmental agency, or securities self-regulatory organization; or

(4) the imposition of a fine of $5,000 or more by any such regulatory or self-regulatory organization in connection with a disciplinary proceeding;

shall be required to register in this heightened category of registration as prescribed by the Exchange, but shall be exempt from the requirement to pass the heightened qualification examination as prescribed by the Exchange.

(g) **Registration Required Under Chapter XIII.** Individual associated persons of a Member Organization that conducts a public customer business must also comply with the registration requirements set forth in Chapter XIII. These additional registration categories include: (1) Registered Options Principal; and (2) Registered Representative.

(h) **Requirement for Examination on Lapse of Registration.** Any person whose registration has been revoked by the Exchange as a disciplinary sanction or whose most recent registration has been terminated for two or more years immediately preceding the date of receipt by the Exchange of a new application shall be required to pass a qualification examination appropriate to the category of registration as prescribed by the Exchange. Any person who last passed the SIE or who was last registered as a Representative, whichever occurred last, four or more years immediately preceding the date of receipt by the Exchange of a new application for registration as a Representative shall be required to pass the SIE in addition to a representative qualification examination appropriate to his or her category of registration.

Interpretations and Policies:

.01 Each individual required to be registered under this Rule shall electronically file a Uniform Application for Securities Industry Registration ("Form U-4") through the Central Registration Depository system operated by FINRA ("Web CRD").

.02 Each individual required to be registered under this Rule shall, electronically submit to Web CRD any required amendments to Form U-4.

.03 Any Member or Member organization that discharges or terminates the employment or retention of an individual required to be registered under this Rule shall comply with the termination filing requirements set forth in Rules 1303(a) and 1303(b).

.04 Each individual required to be registered under this Rule is required to satisfy the continuing education requirements set forth in Rule 1304 as applicable and any other continuing education requirements as prescribed by the Exchange.

.05 The Exchange may, in exceptional cases and where good cause is shown, waive the applicable qualification examination and accept other standards as evidence of an applicant's qualifications for registration. Advanced age or physical infirmity will not individually of themselves constitute sufficient grounds to waive a qualification examination. Experience in fields ancillary to the securities business may constitute sufficient grounds to waive a qualification examination.

.06 For purposes of paragraph (a)(1) above, the Exchange shall consider an individual Member or an individual associated person to be engaged in the securities business of a Member or Member organization if:

(a) the individual Member or individual associated person engages in one or more of the following activities in the capacity of a Member or on behalf of the associated Member or Member organization:

(1) proprietary trading;

(2) market-making;

(3) effecting transactions on behalf of a broker-dealer;

(4) supervision or monitoring of proprietary trading, market making, or brokerage activities;

(5) supervision or training of those engaged in proprietary trading, market making or brokerage activities with respect to those activities; or

(b) the individual Member or individual associated Member engages in the management of one or more of the activities enumerated in subparagraphs (1) through (5) above as an officer, partner or a director.

.07 Each Member and Member organization must register with the Exchange in a heightened capacity each individual acting in any of the following capacities:

(a) officer;

(b) partner;

(c) director;

(d) supervisor of proprietary trading, market making or brokerage activities; and/or

(e) supervisor of those engaged in proprietary trading, market making or brokerage activities with respect to those activities.

Each Member or Member organization must register with the Exchange at least two individuals acting in one or more of the capacities described in (a) through (e) above. The Exchange may waive this requirement if a Member or Member organization demonstrates conclusively that only one individual acting in one or more of the heightened capacities described in (a) through (e) above should be required to register. A Member or Member organization that conducts proprietary trading only and has 25 or fewer registered persons may be required to have one officer or partner who is registered in this capacity.

.08 For purposes of these Interpretations and Policies to Rule 203, a Member or Member organization shall be considered to conduct only proprietary trading if the Member or Member organization has the following characteristics:

(a) The Member or Member organization is not required by Section 15(b)(8) of the Exchange Act to become a FINRA member but is a member of another registered securities exchange not registered solely under Section 6(g) of the Exchange Act;

(b) All funds used or proposed to be used by the Member or Member organization are the Member's or Member organization's own capital, traded through the Member's or Member organization's own accounts;

(c) The Member or Member organization does not, and will not, have customers; and

(d) All persons registered on behalf of the Member or Member organization acting in the capacity of a trader must be owners of, employees of, or contractors of the Member or Member organization.

.09 **Summary of Qualification Requirements.** The following summarizes the qualification requirements for each of the required registration categories described in these Rules:

Category of Registration	Qualification Beginning October 1, 2018
General Securities Principal (GP)	Registration and qualification as a General Securities Representative and pass the General Securities Principal qualification examination (Series 24)
Compliance Official (CO)	Pass the Compliance Official Exam (Series 14)
Financial/Operations Principal (FN)	Pass the Financial and Operations Principal qualification examination (Series 27)
Securities Trader Principal (TP)	Registration and qualification as a Securities Trader and pass the General Securities Principal qualification examination (Series 24)
Registered Options Principal (OP)	Registration and qualification as a General Securities Representative and pass the Registered Options Principal qualification examination (Series 4)
General Securities Sales Supervisor (SU)	Registration and qualification as a General Securities Representative and pass the General Securities Sales Supervisor qualification examinations (Series 9 and Series 10)
General Securities Representative (GS)	Pass the SIE and the General Securities Representative qualification examination (Series 7)
Securities Trader (TD)	Pass the SIE and the Securities Trader qualification examination (Series 57)
Securities Trader Compliance Officer (CT)	Registration and qualification as a Securities Trader and pass the Compliance Official qualification exam (Series 14)

[Adopted: December 20, 2018; amended February 22, 2019 (SR-EMERALD-2019-07)]

Rule 204. Members and Persons Associated with a Member Who Are or Become Subject to a Statutory Disqualification

(a) The Exchange may determine in accordance with the provisions of this Rule not to allow a Member or associated person of a Member to continue being a Member or associated with a Member, or to condition such continuance as a Member or associated person, if the Member or associated person is or becomes subject to a statutory disqualification under the Exchange Act.

(b) If a Member or associated person of a Member who is or becomes subject to a statutory disqualification under the Exchange Act wants to continue being a Member or associated with a Member, the Member or associated person must, within 30 days of becoming subject to a statutory disqualification, submit an application to the Exchange, in a form and manner prescribed by the Exchange, seeking to continue being a Member or associated with a Member notwithstanding the statutory disqualification. The application shall be accompanied by copies of all documents that are contained in the record of the underlying proceeding that triggered the statutory disqualification. Failure to timely file such an application is a factor that may be taken into consideration by the Exchange in making determinations pursuant to paragraph (c) of this Rule.

(c) Following the receipt of an application submitted pursuant to paragraph (b) of this Rule, or in the event the Exchange becomes aware that a Member or associated person of a Member is subject to a statutory disqualification and has failed to submit an application pursuant to paragraph (b) of this Rule within the required time period, the Exchange shall appoint a panel to conduct a hearing concerning the matter pursuant to the procedure set forth in Chapter XI (Hearings, Review and Arbitration).

(d) Subject to Chapter IX (Summary Suspension) of the Rules, any applicant whose application to become a Member is denied or conditioned, or any person whose association with a Member is denied or conditioned pursuant to paragraph (a), (b) or (c) of Rule 201, and any Member or person associated with a Member who is not permitted pursuant to this Rule to continue as a Member or to be associated with a Member or which continuance as a Member or association is conditioned, may appeal the Exchange's decision under Chapter XI (Hearings, Review and Arbitration) of the Rules.

(e) No determination to discontinue or condition a person as a Member or associated person pursuant to this Rule shall take effect until the review procedures under paragraph (d) of this Rule have been exhausted or the time for review has expired.

Interpretations and Policies:

.01 The Exchange may waive the provisions of this Rule when a proceeding is pending before another self-regulatory organization to determine whether to permit a Member or an associated person of a Member to continue being a Member or associated with the Member notwithstanding a statutory disqualification. In the event the Exchange determines to waive the provisions of this Rule with respect to a Member or associated person, the Exchange shall determine whether it will concur in any Exchange Act Rule 19h-1 filing made by another self-regulatory organization with respect to the Member or associated person.

.02 If a Member or an associated person of a Member is or becomes subject to a statutory disqualification under the Exchange Act, the Member shall immediately provide written notice to the Exchange of the name of the Member or associated person, the associated person's capacity with the Member, and the nature of the statutory disqualification.

.03 In those instances where Exchange Act Rule 19h-1(a)(2) does not require the Exchange to make a notice filing with the Commission to permit an associated person to continue in association with a Member, and where the Exchange intends to grant the associated person's application for continued association, the Exchange may waive the hearing provisions of paragraph (c) above with respect to that associated person.

[Adopted: December 20, 2018]

Rule 205. Dissolution and Liquidation of Members

Every Member shall promptly provide written notice to the Exchange of any adoption of a plan of liquidation or dissolution of the Member and of any actual liquidation or dissolution of the Member. Upon receipt of such a notice, the Member may be suspended in accordance with Chapter IX (Summary Suspension) of the Rules.

[Adopted: December 20, 2018]

Rule 206. Obligations of Terminating Members

Each terminating Member shall promptly (a) make any outstanding filings required under Exchange Rules, and (b) pay any outstanding fees, assessments, charges, fines, or other amounts due to the Exchange, the Commission, or the Securities Investor Protection Corporation. If a Member fails to make all such filings, or to pay all such dues, fees and charges, the Exchange may, notwithstanding the other applicable provisions of this Chapter, delay the effectiveness of the termination until such failures have been remedied.

[Adopted: December 20, 2018]

Rule 207. Responsible Person

Each Member must designate an individual as the Responsible Person (as defined in Rule 100) for the Member. The Responsible Person must be affiliated with the Member.

[Adopted: December 20, 2018]

Rule 208. MIAX Emerald Billing System

Every Member must designate a Clearing Member for the payment of the Member's Exchange invoices and vendor invoices for Exchange-related services assessed by the Exchange by means of the MIAX Emerald Billing System ("EBS"). The designated Clearing Member shall pay to the Exchange on a timely basis the full amount of each monthly Exchange invoice. Such payments shall be drafted by the Exchange against the designated Clearing Member's account at the Clearing Corporation.

[Adopted: December 20, 2018]

Rule 209. Letter of Guarantee

Each Member shall provide a letter of guarantee for the Member's trading activities on the Exchange from a Clearing Member in a form and manner prescribed by the Exchange.

[Adopted: December 20, 2018]

Rule 210. Sponsored Access to the Exchange

(a) **General.** This Rule governs electronic access for the entry and execution of orders by Sponsored Users with authorized access to the System and the applicable requirements that Sponsored Users and Sponsoring Members are required to satisfy in order to engage in a Sponsoring Member/Sponsored User relationship. For purposes of this Rule, a "Sponsored User" is a person or entity that has entered into a sponsorship arrangement with a Sponsoring Member for purposes of receiving access to the System.

(b) **Sponsored User.** A Sponsored User may obtain and maintain authorized access to the System, only if such access is authorized in advance by one or more Sponsoring Members as follows:

(1) Sponsored Users must enter into a sponsorship arrangement with a "Sponsoring Member," which is defined as a Member that agrees to sponsor the Sponsored User's access to the System. The sponsorship arrangement consists of three separate components:

(i) The Sponsored User must enter into and maintain a customer agreement(s) with its Sponsoring Member(s), establishing a proper relationship(s) and account(s) through which the Sponsored User will be permitted to trade on the System.

(ii) For a Sponsored User to obtain and maintain authorized access to the System, the Sponsored User and its Sponsoring Member must enter into a written agreement that incorporates the following sponsorship provisions:

(A) The Sponsored User and its Sponsoring Member must have entered into and maintained a Sponsored User Agreement with the Exchange.

(B) The Sponsoring Member acknowledges and agrees that:

1. all orders entered by its Sponsored User, any person acting on behalf of such Sponsored User (e.g., employees or agents of the Sponsored User), or any person acting in the name of such

Sponsored User (e.g., customers of the Sponsored User) and any executions occurring as a result of such orders are binding in all respects on the Sponsoring Member; and

2. the Sponsoring Member is responsible for any and all actions taken by such Sponsored User and any person acting on behalf of or in the name of such Sponsored User.

(C) The Sponsoring Member agrees that it will be bound by and comply with the Exchange's By-Laws, Rules and procedures, as well as any other equivalent documents pertaining to the System (collectively, the "Exchange Rules"), and the Sponsored User agrees that it will be bound by and comply with the Exchange Rules as if the Sponsored User were a Member.

(D) Both the Sponsoring Member and the Sponsored User will agree to comply with all applicable federal securities laws, rules and regulations in connection with the Sponsoring Member/Sponsored User relationship.

(E) The Sponsored User agrees that it will maintain, keep current and provide to the Sponsoring Member a list of persons who have been granted access to the System on behalf of the Sponsored User ("Authorized Traders").

(F) The Sponsored User agrees that it will familiarize its Authorized Traders with all of the Sponsored User's obligations under this Rule and will assure that they receive appropriate training prior to any use of or access to the System.

(G) The Sponsored User agrees that it will not permit anyone other than Authorized Traders to use or obtain access to the System.

(H) The Sponsored User agrees that it will take reasonable security precautions to prevent unauthorized use of or access to the System, including unauthorized entry of information into the System, or the information and data made available therein. The Sponsored User understands and agrees that it is responsible for any and all orders, trades and other messages and instructions entered, transmitted or received under identifiers, passwords and security codes of the Sponsored User and any person acting on behalf of or in the name of such Sponsored User, and for the trading and other consequences thereof.

(I) The Sponsored User acknowledges its responsibility for establishing adequate procedures and controls that permit it to effectively monitor use of and access to the System by any person acting on behalf of or in the name of Sponsored User for compliance with the terms of these sponsorship provisions.

(J) The Sponsored User agrees that it will pay when due all amounts, if any, payable to the Sponsoring Member, the Exchange or any other third parties that arise from the Sponsored User's use of or access to the System. Such amounts include, but are not limited to, applicable Exchange and regulatory fees.

(iii) The Sponsored User and Sponsoring Member must provide the Exchange with a Sponsored User Agreement acknowledging and agreeing to the requirements of this Rule, including an acknowledgement by the Sponsoring Member of its responsibility for the orders, executions and actions of its Sponsored User. To the extent the Sponsoring Member is not a clearing firm, the Sponsoring Member's clearing firm, which must be a Member, must provide the Exchange with a Letter of Authorization, which specifically accepts responsibility for the clearance of the Sponsored User's transactions. Upon approval by the Clearing Corporation, if applicable, and filing with the Exchange, an existing Letter of Authorization may be amended to include the Sponsoring Member/Sponsored User relationship. Sponsored User Agreements and Letters of Authorization filed with the Exchange will remain in effect until a written notice of revocation has been filed with the Exchange. If such a written notice of revocation has not been filed with the Exchange at least one hour prior to the opening of trading on the particular business day, such revocation shall not become effective until the close of trading on such day. A revocation shall in no way relieve the Sponsoring Member or, if applicable, the Sponsored Member's clearing firm of responsibility for transactions guaranteed prior to the effective date of the revocation.

(c) **Sponsoring Member.**

(1) Each Sponsoring Member must have an effective process for vetting and approving persons who may obtain access to the System on behalf of its Sponsored Users (*i.e.*, Authorized Traders);

(2) Each Sponsoring Member must maintain an up-to-date list of Authorized Traders and must provide that list to the Exchange upon request; and

(3) Each Sponsoring Member must have reasonable procedures to ensure that Sponsored User and all of its Sponsored Users' Authorized Traders: (i) maintain the physical security of the Exchange and the System, which includes, but is not limited to, the equipment for accessing the facilities of the Exchange and the System, to prevent the unauthorized use or access to the Exchange or the System, including the unauthorized entry of information into the Exchange or the System, or the information and data made available therein; and (ii) otherwise comply with the Exchange Rules and all applicable federal securities laws, rules and regulations.

(d) If the Exchange determines that a Sponsored User or an Authorized Trader has caused a Sponsoring Member to violate the Exchange Rules or Exchange Act Rule 15c3-5, the Exchange may direct the Sponsoring Member to suspend or withdraw the Sponsored User's status as a Sponsored User or the person's status as an Authorized Trader and, if so directed, the Sponsoring Member must suspend or withdraw such status.

[Adopted: December 20, 2018]

CHAPTER III. BUSINESS CONDUCT

The rules contained in MIAX Chapter III, as such rules may be in effect from time to time (the "Chapter III Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter III, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter III Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter III Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter III Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter III Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter III Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter III Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter III Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER IV. OPTION CONTRACTS TRADED ON THE EXCHANGE

The rules contained in MIAX Chapter IV, as such rules may be in effect from time to time (the "Chapter IV Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter IV, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter IV Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter IV Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter IV Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter IV Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter IV Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter IV Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter IV Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018; amended May 7, 2019 (SR-MIAX-2019-24); amended May 24, 2019 (SR-MIAX-2019-21)]

CHAPTER V. DOING BUSINESS ON THE EXCHANGE

Rule 500. Access to and Conduct on the Exchange

(a) **Access to Exchange.** Unless otherwise provided in the Rules, no one but a Member or a person associated with a Member shall effect any Exchange Transactions. The Exchange may share any Member-designated risk settings in the MIAX Emerald trading system with the Clearing Member that clears Exchange Transactions on behalf of the Member.

(b) **Exchange Conduct.** Members and persons employed by or associated with any Member, while using the facilities of the Exchange, shall not engage in conduct (1) inconsistent with the maintenance of a fair and orderly market; (2) apt to impair public confidence in the operations of the Exchange; or (3) inconsistent with the ordinary and efficient conduct of business. Activities that may violate the provisions of this paragraph (b) include, but are not limited to, the following:

(i) failure of a Market Maker to provide quotations in accordance with Rule 604.

(ii) failure of a Market Maker to bid or offer within the ranges specified by Rule 603(b)(4).

(iii) failure of a Member to supervise a person employed by or associated with such Member adequately to ensure that person's compliance with this paragraph (b).

(iv) failure to abide by a determination of the Exchange.

(v) refusal to provide information requested by the Exchange.

(vi) failure to abide by the provisions of Rule 520.

[Adopted: December 20, 2018]

Rule 501. Days and Hours of Business

The hours during which option transactions may be made on the Exchange shall be from 9:30 a.m. Eastern Time to 4:00 p.m. Eastern Time except for option contracts on Exchange Traded Fund Shares, as defined in Rule 402(j), and Index-Linked Securities, as defined in Rule 402(k)(1), which may remain open for trading beyond 4:00 p.m. but in no case later than 4:15 p.m. Eastern Time, as designated by the Exchange.

Interpretations and Policies:

.01 The Board of Directors has resolved that, except under unusual conditions as may be determined by the Board or its designee, hours during which transactions in options on individual stocks may be made on the Exchange shall correspond to the normal hours for business set forth in the rules of the primary exchange listing the stocks underlying Exchange options.

.02 The Board of Directors has determined that the Exchange will not be open for business on New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day or Christmas Day. The Board has also determined that, in most circumstances when a holiday observed by the Exchange falls on a Saturday, the Exchange will not be open for business on the preceding Friday, and that when a holiday observed by the Exchange falls on a Sunday, the Exchange will not be open for business on the following Monday.

[Adopted: December 20, 2018]

Rule 502. Message Packets

Each Trading Permit shall entitle the holder to a maximum number of orders and quotes per second as determined by the Exchange. Only Market Makers may submit quotes to the System. Members seeking to exceed that number of messages per second may purchase additional message packets at prices set forth in the Exchange's Fee Schedule.

[Adopted: December 20, 2018]

Rule 503. Openings on the Exchange ***(See below for amended Rule 503 which will become operative on June 21, 2019.)***

(a) For a period of time before the scheduled opening in the underlying security the Exchange will accept orders and quotes in equity and index options during the "Pre-Opening Phase".

(b) The procedure described in this Rule will be used to reopen an option class after a trading halt. The order types that may participate in the opening process are set forth in Rule 516 (the "Opening Process"). Post-Only OQs may participate in the Opening Process, however, the Post-Only instruction will be ignored for Post-Only OQs that participate in the Opening Process.

(c) In connection with an opening, a limit order to buy which is at a higher price than the price at which the option is to be opened and a limit order to sell which is at a lower price than the price at which the option is to be opened, shall be treated as market orders.

(d) For purposes of this Rule, "market for the underlying security" shall be either the primary listing market, the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), or the first market to open the underlying security, as determined by the Exchange on an class-by-class basis and announced to the Members through a Regulatory Circular.

(e) **Starting the Opening Process**

(1) The Opening Process cannot occur prior to 9:30 a.m. Eastern Time and can only begin following the dissemination of a quote or trade in the market for the underlying security. Following the dissemination of a quote or trade in the market for the underlying security, the System will pause for a period of time no longer than one half second to allow the market place to absorb this information. The length of the pause will be disseminated to members through a Regulatory Circular. After the conclusion of the pause the Opening Process will begin when either:

(i) the Primary Lead Market Maker's valid width quote has been submitted;

(ii) the valid width quotes of at least two Market Makers, where at least one is a Lead Market Maker, have been submitted; or

(iii) for multiply listed option classes, at least one Eligible Exchange (as defined in Rule 1400(f)) has disseminated a quote in the individual option in accordance with Rule 1402(a), there is a valid width NBBO available and the valid width quote of at least one Lead Market Maker has been submitted.

(2) For purposes of this rule a valid width NBBO is one where the bid and offer of the NBBO differ by no more than differences outlined in Exchange Rule 603(b)(4)(i).

(3) Also, for purposes of this rule, valid width quote is one where the bid and offer, comprised of a Market Maker's Standard quotes, differ by no more than the differences outlined in Exchange Rule 603(b)(4)(i).

(4) If after two minutes following the dissemination of a quote or trade in the market for the underlying security none of the provisions set forth in (e)(1) above have occurred, then the Opening Process can begin when one Market Maker has submitted its valid width quote.

(5) The Primary Lead Market Maker assigned in a particular equity option class must enter valid width quotes not later than one minute following the dissemination of a quote or trade by the market for the underlying security.

(6) A Registered Market Maker that submits a quote pursuant to this Rule 503 in any series when a Lead Market Maker's or Primary Lead Market Maker's quote has not been submitted shall be required to submit continuous, two-sided quotes in such series until such time as a Lead Market Maker submits his/her quote, after which the Registered Market Maker that submitted such quote shall be obligated to submit quotations pursuant to Rule 604(e)(3).

(f) **Opening Process**

(1) If there are no quotes or orders that lock or cross each other, the System will open by disseminating the Exchange's best bid and offer among quotes and orders that exist in the System at that time. In such a circumstance, non-routable orders then in the System that cross the ABBO will be cancelled and are not included in the Managed Interest Process, as described in Rule 515(c)(1)(ii).

(2) If there are quotes or orders that lock or cross each other, the System will open by following the Opening Process detailed below.

(i) **Expanded Quote Range**. The System will calculate an Expanded Quote Range ("EQR"). The EQR will be recalculated any time a Route Timer or Imbalance Timer expires if material conditions of the market (imbalance size, ABBO price or size, liquidity price or size, etc.) have changed during the timer. Once calculated, the EQR will represent the limits of the range in which transactions may occur during the Opening Process.

(A) If one or more away markets have disseminated valid width quotes in the affected series, the System will calculate an EQR for a particular series as follows:

1. Except as provided in subparagraph (2) below, to determine the minimum value for the EQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest valid width quote bid among valid width quotes on the Exchange and on the away market(s). To determine the maximum value for the EQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest valid width quote offer among valid width quotes on the Exchange and on the away market(s).

2. If one or more away markets have disseminated quotes that are not crossed and together comprise a valid width market, and there are valid width quotes on the Exchange that cross each other or that cross away market quotes, then:

a. the minimum value for the EQR will be the highest away market quote bid, and

b. the maximum value for the EQR will be the lowest away market quote offer.

(B) If no away markets have disseminated valid width quotes in the affected series, the System will calculate an Expanded Quote Range ("EQR") for a particular series as follows:

1. Except as provided in subparagraph (3) below, to determine the minimum value for the EQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest valid width quote bid among valid width quotes on the Exchange; and

2. Except as provided in subparagraph (3) below, to determine the maximum value for the EQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest valid width quote offer among valid width quotes on the Exchange.

3. If there are quotes on the Exchange that cross each other, and there is no away market in the affected series, then

a. the minimum value for the EQR will be the lowest valid width quote bid among valid width quotes on the Exchange.

b. the maximum value for the EQR will be the highest valid width quote offer among valid width quotes on the Exchange.

(ii) When two or more prices for an affected series would satisfy the Opening Process as detailed below and the maximum quantity criterion would satisfy all interest at that level, the System uses the highest and lowest of those prices to determine the mid-point for the opening price. If such midpoint is not expressed as a permitted minimum trading increment, it will be rounded up to determine the opening price. In a situation where a limit order to buy (sell) crosses more than one offer (bid), the System will treat the limit order to buy (sell) like a market order up to and including its limit price for purposes of opening price selection.

(iii) In situations where there is matched interest that does not represent an imbalance and there is no valid width NBBO, the System will calculate a "quality opening market range" (as defined in a table to be determined by the Exchange and published in a Regulatory Circular) in such option series. If the matched interest would trade at a price outside of the quality opening market range, the imbalance process will be used.

(iv) If there are quotes or orders that lock or cross, the System will use the EQR to determine the highest and lowest price of the opening price range. To calculate the opening price, the System will take into consideration all valid Exchange quotes and all valid orders, together with other exchanges' markets for the series and identify the price at which the maximum number of contracts can trade. If that price is within the EQR and leaves no imbalance, the Exchange will open at that price, executing marketable trading interest, as long as the opening price includes only Exchange interest. In series where the highest quote bid is either zero or the lowest minimum trading increment and market order sell interest has a quantity greater than all of the buy interest, the System will treat the market order(s) like a limit order(s) to sell at the lowest minimum trading increment and the Opening Process will be satisfied with an opening price at the lowest minimum trading increment with any remaining balance of the sell order(s) being placed on the Book in time priority and made available for execution following the Opening Process.

(A) If the calculated opening price included interest other than solely Exchange interest, the System will broadcast a System Imbalance Message (which includes the symbol, side of the market, quantity of matched contracts, the imbalance quantity, "must fill" quantity (i.e., the number of contracts that must be filled in order for that option to open on the Exchange at the indicated price), quantity of routable contracts, and price of the affected series) to Exchange Members and initiate a "Route Timer," not to exceed one second. If no new interest is received during the Route Timer, the System will route to other markets disseminating prices better than the Exchange's opening price, execute marketable interest at the opening price on the Exchange, and route to other markets disseminating prices equal to the Exchange opening price if necessary.

1. Orders that are routed and executed may receive executions at multiple prices.

2. Any order that is routed pursuant to this Rule will be marked as an Intermarket Sweep Order ("ISO"), as defined in Rule 1400(h), with a limit price equal to the Exchange's opening price.

(B) If interest is received during the Route Timer, the System will recalculate the opening price taking such new interest into account. Then, if there is no imbalance, the System will execute marketable interest at the opening price on the Exchange and route the remainder to other markets.

(C) A different opening price will not require the System to repeat the entire process.

(v) **Imbalance.** An "imbalance" occurs when there is insufficient liquidity to satisfy all trading interest due an execution at a certain price.

(vi) If there is sufficient size on the Exchange and on away markets on the opposite side of the market from the imbalance to execute all opening marketable interest at a price that is within the established EQR and the Away Best Bid or Offer ("ABBO") without leaving an imbalance, the System will open the affected series for trading at that price by executing opening marketable interest on the System, as long as the System does not trade at a price inferior to the ABBO. If it would trade at a price inferior to the ABBO, the System will initiate a "Route Timer," not to exceed one second. If no new interest is received during the Route Timer, the System will then route to other markets disseminating prices better than Exchange's opening price, execute marketable interest at the opening price on the Exchange, and route to other markets disseminating prices equal to the Exchange opening price if necessary. If there is still an imbalance after the Route Timer expires, the System will begin the imbalance process as described below.

(vii) **Imbalance Process.** If all opening marketable size cannot be completely executed at or within the EQR without trading at a price inferior to the ABBO, or cannot trade at or within the quality opening market range in the absence of a valid width NBBO, the System will automatically institute the following imbalance process:

(A) First, the System will broadcast a System Imbalance Message (which includes the symbol, side of the market, quantity of matched contracts, the imbalance quantity, "must fill" quantity, quantity of routable contracts, and price of the affected series) to subscribers of the Exchange's data feeds, and begin an "Imbalance Timer," not to exceed three seconds. The Imbalance Timer will be for the same number of seconds for all option classes traded on the Exchange. Market Makers may enter Opening Only ("OPG") eQuotes, Auction-or-Cancel ("AOC") eQuotes, Standard Quotes, Post-Only Quotes, Opening ("OPG") Orders, AOC Orders, Post-Only Orders, and limit orders during the Imbalance Timer. Other Exchange Members may enter OPG Orders, AOC Orders and other order types (except those order types not valid during the Opening Process as described in Rule 516) during the Imbalance Timer.

(B) If at the conclusion of the timer, quotes and orders submitted during the Imbalance Timer, or other changes to the ABBO, would not allow the entire imbalance amount to trade at the Exchange at or within the EQR without trading at a price inferior to the ABBO, the System will:

1. send a new System Imbalance Message to Exchange Members; and

2. initiate a Route Timer for routable Public Customer Orders not to exceed one second. If during the Route Timer, interest is received by the System which would allow all interest to trade on the System (i.e., there is no longer an imbalance) at the opening price without trading at a price inferior to other markets, the System will trade and the Route Timer will end. The System will monitor quotes received during the Route Timer period and make ongoing corresponding changes to the permitted EQR to reflect them.

3. If the Route Timer expires, the End of Route Timer Process will ensue. Under the End of Route Timer Process, the System will determine:

a. If the total number of contracts displayed at better prices than the Exchange's potential opening price on away markets ("better priced away contracts") would satisfy the number of marketable contracts available on the Exchange. If so, the System will route all marketable contracts on the Exchange to such better priced away markets, and determine an opening MIAX Emerald best bid or offer (EBBO) that reflects the interest remaining on the Exchange. The System will price any contracts routed away to other markets at the better away market price.

b. If the total number of better priced away contracts would not satisfy the number of marketable contracts the Exchange has, the System will determine how many contracts it has available at the Exchange opening price. If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price would satisfy the number of marketable contracts on the Exchange, the System will

contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Exchange opening price, and trade available contracts on the Exchange at the Exchange opening price.

c. If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price would not satisfy the number of marketable contracts the Exchange has, the System will determine how many contracts are available at other markets at the Exchange opening price. If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price plus the contracts available at other markets at the Exchange opening price would satisfy the number of marketable contracts the Exchange has, the System will contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Exchange opening price, trade available contracts on the Exchange at the Exchange opening price, and route a number of contracts that will satisfy interest at other markets at prices equal to the Exchange opening price.

d. If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price plus the contracts available at other markets at the Exchange opening price would not satisfy the number of marketable contracts the Exchange has, the System will repeat the imbalance process.

4. The System may repeat the imbalance process up to three times (as established by the Exchange).

5. If after that number of times the System still cannot route and/or trade the entire imbalance amount, the System will open as many contracts as possible by routing to other markets with prices better than the Exchange opening price for their disseminated size, trade available contracts on the Exchange at the opening price and route to other markets at prices equal to the Exchange opening price for their disseminated size. In this situation, the System will price any contracts routed to other markets at the away market price. If there is an opening transaction, any unexecuted contracts from the imbalance not traded or routed will be cancelled back to the entering Member if the price for those contracts crosses the opening price. However, in a series where the EQR has been calculated to be zero on the bid side and market order sell interest has a quantity greater than all of the buy interest, the System will treat the market order(s) like a limit order(s) to sell at the lowest minimum trading increment and the Opening Process will be satisfied with an opening price at the lowest minimum trading increment with any remaining balance of the sell order(s) being placed on the Book in time priority and made available for execution following the Opening Process.

6. The System will execute orders at the opening that have contingencies and non-routable orders, such as a "Do Not Route" or "DNR" Orders to the extent possible. DNR Orders together with other non-routable orders will be handled after the opening in accordance with Rule 515.

(C) **Permitted Responses to Imbalance Message.** Market Makers may submit Standard quotes, Post-Only Quotes, OPG and AOC eQuotes, OPG, AOC and Post-Only Orders and limit orders in response to an imbalance message. All other Exchange Members may submit OPG, AOC and Post-Only Orders and other types of orders (except those order types not valid during the Opening Process as described in Rule 516) in response to an imbalance message. Post-Only Quotes, OPG and AOC eQuotes, and OPG, Post-Only and AOC Orders may be entered at any price with a minimum trading increment applicable to the affected series, on either side of the market, at single or multiple price level(s), and may be cancelled and reentered. A single Exchange Member may enter multiple Post-Only Quotes, OPG and AOC eQuotes, and OPG, Post-Only and AOC Orders, with each eQuote or Order at a different price level. The System will aggregate the size of all quotes and orders (i.e., for each Market Maker) at a particular price level for trade allocation purposes. Unexecuted OPG or AOC eQuotes and OPG or AOC Orders will be cancelled once the affected series is open.

(viii) The System will give priority to market orders first in type, then in time priority (including limit orders that are treated as market orders except for limit orders in series with a bid of $0.00 and an offer less than $0.05, which will not be treated as market orders), then to resting limit orders at the opening price.

(ix) Inbound orders and quotes will not be included in the calculation of the opening price for a brief period established by the System while the System is in the process of completing the opening trade. This brief period will not exceed .25 of one second. After such brief period, inbound orders and quotes received during the period will be entered into the System in order of their arrival.

(x) If at any point during the Opening Process the ABBO becomes crossed (e.g., the bid is greater than the offer), the Opening Process will be terminated and the Exchange will not open the affected series. A new Opening Process for the affected series will commence at the time the ABBO is no longer crossed.

(xi) Any Route Timer or Imbalance Timer in process shall terminate with respect to an option if at any time during the Opening Process there is a trading halt or trading pause in such option on the Exchange. The option may be subject to any new subsequent Route Timer or Imbalance Timer during the Opening Process upon the termination of the trading halt or trading pause for such option.

(g) Senior Help Desk personnel may deviate from the standard manner of the Opening Process when necessary, including delay or compel the opening of any series in any option class, modify timers or settings described in this rule, when necessary in the interests of commencing or maintaining a fair and orderly market, in the event of unusual market conditions or in the public interest. The Exchange will make and maintain records to document all determinations to deviate from the standard manner of the Opening Process, and periodically review these determinations for consistency with the interests of a fair and orderly market.

Interpretations and Policies:

.01 It shall not be considered a violation of Rule 503(e)(5) if the Primary Lead Market Maker assigned in a particular equity option class has not submitted valid width quotes in any series of such class within one minute following the dissemination of a quote or trade by the market for the underlying security if the affected series of such class have opened for trading within such one minute period, unless the Primary Lead Market Maker demonstrates a pattern or practice of not submitting valid width quotes within one minute following the dissemination of a quote or trade by the market for the underlying security, irrespective of whether the series have opened for trading.

[Adopted: December 20, 2018; amended February 22, 2019 (SR-EMERALD-2019-08)]

The following Rule will become operative on June 21, 2019.

Rule 503. Openings on the Exchange

(a) For a period of time before the scheduled opening in the underlying security the Exchange will accept orders and quotes in equity and index options during the "Pre-Opening Phase".

(b) The procedure described in this Rule will be used to reopen an option class after a trading halt. The order types that may participate in the opening process are set forth in Rule 516 (the "Opening Process"). Post-Only OQs may participate in the Opening Process, however, the Post-Only instruction will be ignored for Post-Only OQs that participate in the Opening Process.

(c) In connection with an opening, a limit order to buy which is at a higher price than the price at which the option is to be opened and a limit order to sell which is at a lower price than the price at which the option is to be opened, shall be treated as market orders.

(d) For purposes of this Rule, "market for the underlying security" shall be either the primary listing market, the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), or the first market to open the underlying security, as determined by the Exchange on an class-by-class basis and announced to the Members through a Regulatory Circular.

*(e) **Starting the Opening Process***

(1) The Opening Process cannot occur prior to 9:30 a.m. Eastern Time and can only begin following the dissemination of a quote or trade in the market for the underlying security. Following the dissemination of a quote or trade in the market for the underlying security, the System will pause for a period of time no longer than one half second to allow the market place to absorb this information. The length of the pause will be disseminated to members through a Regulatory Circular. After the conclusion of the pause the Opening Process will begin when either:

(i) the Primary Lead Market Maker's valid width quote has been submitted;

(ii) the valid width quotes of at least two Market Makers, where at least one is a Lead Market Maker, have been submitted; or

(iii) for multiply listed option classes, at least one Eligible Exchange (as defined in Rule 1400(f)) has disseminated a quote in the individual option in accordance with Rule 1402(a), there is a valid width NBBO available and the valid width quote of at least one Lead Market Maker has been submitted.

(2) For purposes of this rule a valid width NBBO is one where the bid and offer of the NBBO differ by no more than differences outlined in Exchange Rule 603(b)(4)(i).

(3) Also, for purposes of this rule, valid width quote is one where the bid and offer, comprised of a Market Maker's Standard quotes, differ by no more than the differences outlined in Exchange Rule 603(b)(4)(i).

(4) If after two minutes following the dissemination of a quote or trade in the market for the underlying security none of the provisions set forth in (e)(1) above have occurred, then the Opening Process can begin when one Market Maker has submitted its valid width quote.

(5) The Primary Lead Market Maker assigned in a particular equity option class must enter valid width quotes not later than one minute following the dissemination of a quote or trade by the market for the underlying security.

(6) A Registered Market Maker that submits a quote pursuant to this Rule 503 in any series when a Lead Market Maker's or Primary Lead Market Maker's quote has not been submitted shall be required to submit continuous, two-sided quotes in such series until such time as a Lead Market Maker submits his/her quote, after which the Registered Market Maker that submitted such quote shall be obligated to submit quotations pursuant to Rule 604(e)(3).

*(f) **Opening Process***

(1) If there are no quotes or orders that lock or cross each other, the System will open by disseminating the Exchange's best bid and offer among quotes and orders that exist in the System at that time. In such a circumstance, non-routable orders then in the System that cross the ABBO will be cancelled and are not included in the Managed Interest Process, as described in Rule 515(c)(1)(ii).

(2) If there are quotes or orders that lock or cross each other, the System will open by following the Opening Process detailed below.

*(i) **Expanded Quote Range**. The System will calculate an Expanded Quote Range ("EQR"). The EQR will be recalculated any time a Route Timer or Imbalance Timer expires if material conditions of the market (imbalance size, ABBO price or size, liquidity price or size, etc.) have changed during the timer. Once calculated, the EQR will represent the limits of the range in which transactions may occur during the Opening Process.*

(A) If one or more away markets have disseminated valid width quotes in the affected series, the System will calculate an EQR for a particular series as follows:

1. Except as provided in subparagraph (2) below, to determine the minimum value for the EQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest valid width quote bid among valid width quotes on the Exchange and on the away market(s). To determine the maximum value for the EQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest valid width quote offer among valid width quotes on the Exchange and on the away market(s).

2. If one or more away markets have disseminated quotes that are not crossed and together comprise a valid width market, and there are valid width quotes on the Exchange that cross each other or that cross away market quotes, then:

a. the minimum value for the EQR will be the highest away market quote bid, and

b. the maximum value for the EQR will be the lowest away market quote offer.

(B) If no away markets have disseminated valid width quotes in the affected series, the System will calculate an Expanded Quote Range ("EQR") for a particular series as follows:

1. Except as provided in subparagraph (3) below, to determine the minimum value for the EQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest valid width quote bid among valid width quotes on the Exchange; and

2. Except as provided in subparagraph (3) below, to determine the maximum value for the EQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest valid width quote offer among valid width quotes on the Exchange.

3. If there are quotes on the Exchange that cross each other, and there is no away market in the affected series, then

a. the minimum value for the EQR will be the lowest valid width quote bid among valid width quotes on the Exchange.

b. the maximum value for the EQR will be the highest valid width quote offer among valid width quotes on the Exchange.

(ii) When two or more prices for an affected series would satisfy the Opening Process as detailed below and the maximum quantity criterion would satisfy all interest at that level, the System uses the highest and lowest of those prices to determine the mid-point for the opening price. If such midpoint is not expressed as a permitted minimum trading increment, it will be rounded up to determine the opening price. In a situation where a limit order to buy (sell) crosses more than one offer (bid), the System will treat the limit order to buy (sell) like a market order up to and including its limit price for purposes of opening price selection.

(iii) In situations where there is matched interest that does not represent an imbalance and there is no valid width NBBO, the System will calculate a "quality opening market range" (as defined in a table to be determined by the Exchange and published in a Regulatory Circular) in such option series. If the matched interest would trade at a price outside of the quality opening market range, the imbalance process will be used.

(iv) If there are quotes or orders that lock or cross, the System will use the EQR to determine the highest and lowest price of the opening price range. To calculate the opening price, the System will take into consideration all valid Exchange quotes and all valid orders, together with other exchanges' markets for the series and identify the price at which the maximum number of contracts can trade. If that price is within the EQR and leaves no imbalance, the Exchange will open at that price, executing marketable trading interest, as long as the opening price includes only Exchange interest. In series where the highest quote bid is either zero or the lowest minimum

trading increment and market order sell interest has a quantity greater than all of the buy interest, the System will treat the market order(s) like a limit order(s) to sell at the lowest minimum trading increment and the Opening Process will be satisfied with an opening price at the lowest minimum trading increment with any remaining balance of the sell order(s) being placed on the Book in time priority and made available for execution following the Opening Process.

(A) If the calculated opening price included interest other than solely Exchange interest, the System will broadcast a System Imbalance Message (which includes the symbol, side of the market, quantity of matched contracts, the imbalance quantity, "must fill" quantity (i.e., the number of contracts that must be filled in order for that option to open on the Exchange at the indicated price), quantity of routable contracts, and price of the affected series) to Exchange Members and initiate a "Route Timer," not to exceed one second. If no new interest is received during the Route Timer, the System will route to other markets disseminating prices better than the Exchange's opening price, execute marketable interest at the opening price on the Exchange, and route to other markets disseminating prices equal to the Exchange opening price if necessary.

1. Orders that are routed and executed may receive executions at multiple prices.

2. Any order that is routed pursuant to this Rule will be marked as an Intermarket Sweep Order ("ISO"), as defined in Rule 1400(h), with a limit price equal to the away market's displayed price.

(B) If interest is received during the Route Timer, the System will recalculate the opening price taking such new interest into account. Then, if there is no imbalance, the System will execute marketable interest at the opening price on the Exchange and route the remainder to other markets.

(C) A different opening price will not require the System to repeat the entire process.

(v) ***Imbalance.*** *An "imbalance" occurs when there is insufficient liquidity to satisfy all trading interest due an execution at a certain price.*

(vi) If there is sufficient size on the Exchange and on away markets on the opposite side of the market from the imbalance to execute all opening marketable interest at a price that is within the established EQR and the Away Best Bid or Offer ("ABBO") without leaving an imbalance, the System will open the affected series for trading at that price by executing opening marketable interest on the System, as long as the System does not trade at a price inferior to the ABBO. If it would trade at a price inferior to the ABBO, the System will initiate a "Route Timer," not to exceed one second. If no new interest is received during the Route Timer, the System will then route to other markets disseminating prices better than Exchange's opening price, execute marketable interest at the opening price on the Exchange, and route to other markets disseminating prices equal to the Exchange opening price if necessary. If there is still an imbalance after the Route Timer expires, the System will begin the imbalance process as described below.

(vii) ***Imbalance Process.*** *If all opening marketable size cannot be completely executed at or within the EQR without trading at a price inferior to the ABBO, or cannot trade at or within the quality opening market range in the absence of a valid width NBBO, the System will automatically institute the following imbalance process:*

(A) First, the System will broadcast a System Imbalance Message (which includes the symbol, side of the market, quantity of matched contracts, the imbalance quantity, "must fill" quantity, quantity of routable contracts, and price of the affected series) to subscribers of the Exchange's data feeds, and begin an "Imbalance Timer," not to exceed three seconds. The Imbalance Timer will be for the same number of seconds for all option classes traded on the Exchange. Market Makers may enter Opening Only ("OPG") eQuotes, Auction-or-Cancel ("AOC") eQuotes, Standard Quotes, Post-Only Quotes, Opening ("OPG") Orders, AOC Orders, Post-Only Orders, and limit orders during the Imbalance Timer. Other Exchange Members may enter OPG Orders, AOC Orders and other order types (except those order types not valid during the Opening Process as described in Rule 516) during the Imbalance Timer.

(B) If at the conclusion of the timer, quotes and orders submitted during the Imbalance Timer, or other changes to the ABBO, would not allow the entire imbalance amount to trade at the Exchange at or within the EQR without trading at a price inferior to the ABBO, the System will:

1. send a new System Imbalance Message to Exchange Members; and

2. initiate a Route Timer for routable Public Customer Orders not to exceed one second. If during the Route Timer, interest is received by the System which would allow all interest to trade on the System (i.e., there is no longer an imbalance) at the opening price without trading at a price inferior to other markets, the System will trade and the Route Timer will end. The System will monitor quotes received during the Route Timer period and make ongoing corresponding changes to the permitted EQR to reflect them.

3. If the Route Timer expires, the End of Route Timer Process will ensue. Under the End of Route Timer Process, the System will determine:

a. If the total number of contracts displayed at better prices than the Exchange's potential opening price on away markets ("better priced away contracts") would satisfy the number of marketable contracts available on the Exchange. If so, the System will route all marketable contracts on the Exchange to such better priced away markets, and determine an opening MIAX Emerald best bid or offer (EBBO) that reflects the interest remaining on the Exchange. The System will price any contracts routed away to other markets at the better away market price.

b. If the total number of better priced away contracts would not satisfy the number of marketable contracts the Exchange has, the System will determine how many contracts it has available at the Exchange opening price. If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price would satisfy the number of marketable contracts on the Exchange, the System will contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Exchange opening price, and trade available contracts on the Exchange at the Exchange opening price.

c. If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price would not satisfy the number of marketable contracts the Exchange has, the System will determine how many contracts are available at other markets at the Exchange opening price. If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price plus the contracts available at other markets at the Exchange opening price would satisfy the number of marketable contracts the Exchange has, the System will contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Exchange opening price, trade available contracts on the Exchange at the Exchange opening price, and route a number of contracts that will satisfy interest at other markets at prices equal to the Exchange opening price.

d. If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price plus the contracts available at other markets at the Exchange opening price would not satisfy the number of marketable contracts the Exchange has, the System will repeat the imbalance process.

4. The System may repeat the imbalance process up to three times (as established by the Exchange).

5. If after that number of times the System still cannot route and/or trade the entire imbalance amount, the System will open as many contracts as possible by routing to other markets with prices better than the Exchange opening price for their disseminated size, trade available contracts on the Exchange at the opening price and route to other markets at prices equal to the Exchange opening price for their disseminated size. In this situation, the System will price any contracts routed to other markets at the away market price. If there is an opening transaction, any unexecuted contracts from the imbalance not traded or routed will be cancelled back to the entering Member if the price for those contracts crosses the opening price. However, in a series where the EQR has been

calculated to be zero on the bid side and market order sell interest has a quantity greater than all of the buy interest, the System will treat the market order(s) like a limit order(s) to sell at the lowest minimum trading increment and the Opening Process will be satisfied with an opening price at the lowest minimum trading increment with any remaining balance of the sell order(s) being placed on the Book in time priority and made available for execution following the Opening Process.

6. The System will execute orders at the opening that have contingencies and non-routable orders, such as a "Do Not Route" or "DNR" Orders to the extent possible. DNR Orders together with other non-routable orders will be handled after the opening in accordance with Rule 515.

(C) ***Permitted Responses to Imbalance Message.*** *Market Makers may submit Standard quotes, Post-Only Quotes, OPG and AOC eQuotes, OPG, AOC and Post-Only Orders and limit orders in response to an imbalance message. All other Exchange Members may submit OPG, AOC and Post-Only Orders and other types of orders (except those order types not valid during the Opening Process as described in Rule 516) in response to an imbalance message. Post-Only Quotes, OPG and AOC eQuotes, and OPG, Post-Only and AOC Orders may be entered at any price with a minimum trading increment applicable to the affected series, on either side of the market, at single or multiple price level(s), and may be cancelled and reentered. A single Exchange Member may enter multiple Post-Only Quotes, OPG and AOC eQuotes, and OPG, Post-Only and AOC Orders, with each eQuote or Order at a different price level. The System will aggregate the size of all quotes and orders (i.e., for each Market Maker) at a particular price level for trade allocation purposes. Unexecuted OPG or AOC eQuotes and OPG or AOC Orders will be cancelled once the affected series is open.*

(viii) The System will give priority to market orders first in type, then in time priority (including limit orders that are treated as market orders except for limit orders in series with a bid of $0.00 and an offer less than $0.05, which will not be treated as market orders), then to resting limit orders at the opening price.

(ix) Inbound orders and quotes will not be included in the calculation of the opening price for a brief period established by the System while the System is in the process of completing the opening trade. This brief period will not exceed .25 of one second. After such brief period, inbound orders and quotes received during the period will be entered into the System in order of their arrival.

(x) If at any point during the Opening Process the ABBO becomes crossed (e.g., the bid is greater than the offer), the Opening Process will be terminated and the Exchange will not open the affected series. A new Opening Process for the affected series will commence at the time the ABBO is no longer crossed.

(xi) Any Route Timer or Imbalance Timer in process shall terminate with respect to an option if at any time during the Opening Process there is a trading halt or trading pause in such option on the Exchange. The option may be subject to any new subsequent Route Timer or Imbalance Timer during the Opening Process upon the termination of the trading halt or trading pause for such option.

(g) Senior Help Desk personnel may deviate from the standard manner of the Opening Process when necessary, including delay or compel the opening of any series in any option class, modify timers or settings described in this rule, when necessary in the interests of commencing or maintaining a fair and orderly market, in the event of unusual market conditions or in the public interest. The Exchange will make and maintain records to document all determinations to deviate from the standard manner of the Opening Process, and periodically review these determinations for consistency with the interests of a fair and orderly market.

Interpretations and Policies:

.01 It shall not be considered a violation of Rule 503(e)(5) if the Primary Lead Market Maker assigned in a particular equity option class has not submitted valid width quotes in any series of such class within one minute following the dissemination of a quote or trade by the market for the underlying security if the affected series of such class have opened for trading within such one minute period, unless the Primary Lead Market Maker demonstrates a pattern or

practice of not submitting valid width quotes within one minute following the dissemination of a quote or trade by the market for the underlying security, irrespective of whether the series have opened for trading.

[Adopted: December 20, 2018; amended February 22, 2019 (SR-EMERALD-2019-08); amended June 21, 2019 (SR-EMERALD-2019-22)]

Rule 504. Trading Halts

(a) **Halts.**

(1) The System may halt trading in the case of an option on a security, when trading in the underlying security has been halted or suspended in the primary market; and

(2) The Help Desk may halt trading in any security in the interests of a fair and orderly market for a period not in excess of two consecutive business days. The Help Desk, in consultation with a designated senior executive officer of the Exchange, may halt trading in any security in the interests of a fair and orderly market for a period exceeding two consecutive business days. Any trading halt that lasts more than two consecutive business days shall be reviewed by the President or his/her designee, who shall be authorized to determine whether, in the interests of a fair and orderly market, to terminate or modify any such trading halt that is then still in effect. Among the factors that may be considered in making the foregoing determinations are whether:

(i) in the case of an option on a security, trading in the underlying security has been halted or suspended in the primary market;

(ii) in the case of an option on a security, the opening of such underlying security has been delayed because of unusual circumstances;

(iii) the extent to which the rotation has been completed or other factors regarding the status of the rotation; or

(iv) other unusual conditions or circumstances are present.

(3) The Exchange shall disseminate through its trading facilities and over OPRA a symbol in respect of a security halted in accordance with (1) or (2) above indicating that trading has been halted. A record of the time and duration of the halt shall be made available to vendors.

(b) **Resumptions.** Trading in a security that has been the subject of a halt under paragraph (a) above may be resumed upon a determination by the Help Desk that the interests of a fair and orderly market are best served by a resumption of trading. Among the factors to be considered in making this determination are whether the conditions which led to the halt are no longer present.

(c) **Trading Pauses.** Trading on the Exchange in any option contract shall be halted whenever trading in the underlying security has been paused by the primary listing market. Trading in such options contracts may be resumed upon a determination by the Exchange that the conditions that led to the pause are no longer present and that the interests of a fair and orderly market are best served by a resumption of trading, which in no circumstances will be before the Exchange has received notification that the underlying security has resumed trading on at least one exchange.

(d) **Post-Halt Notification.** After the Exchange has determined to end a trading system halt, the System will broadcast to subscribers of the Exchange's data feeds a Post-Halt Notification.

(1) Regarding a halt pursuant to section (a) above, the Post-Halt Notification will be broadcast twenty seconds before trading will begin or resume.

(2) Regarding a halt initiated by the System due to a regulatory halt, trading pause or market-wide trading halt, a Post-Halt Notification will be broadcast between five and twenty seconds before trading will begin or resume. The Exchange will announce the duration of the Post-Halt Notification period through a Regulatory Circular.

The Post-Halt Notification will state the time at which trading in the option class or classes is expected to resume providing subscribers of the Exchange's data feeds with a brief notice period (twenty seconds for halts pursuant to section (a) above; between five and twenty seconds for a regulatory halt, trading pause or market-wide trading halt) to prepare for the beginning or resumption of trading after a trading system halt has ended.

Interpretations and Policies:

.01 No Member or person associated with a Member shall effect a trade on the Exchange in any option class in which trading has been suspended or halted under the provisions of this Rule and its Interpretations and Policies during the time in which the suspension or halt remains in effect.

.02 Generally, in the case of an option on a security, trading will be halted when a regulatory halt in the underlying security has occurred in the primary listing market for that security.

.03 The Exchange shall halt trading in all securities whenever a market-wide trading halt commonly known as a circuit breaker is initiated on the New York Stock Exchange in response to extraordinary market conditions.

.04 Trades on the Exchange will be nullified when: (i) the trade occurred during a trading halt in the affected option on the Exchange; (ii) respecting equity options (including options overlying ETFs), the trade occurred during a regulatory halt as declared by the primary market for the underlying security; or (iii) with respect to index options, the trade occurred during a trading halt on the primary market in underlying securities representing more than 10 percent of the current index value for narrow-based stock index options, and 20 percent of the current index value for broad-based index options.

.05 Trading halts, resumptions, trading pauses and post-halt notifications involving index options are governed by Rules 1808(c)-(f).

[Adopted: December 20, 2018]

Rule 505. Member Electronic Connectivity

The Exchange may limit the number of messages sent by Members accessing the Exchange electronically in order to protect the integrity of the System. In addition, the Exchange may impose restrictions on the use of a computer connected through an API if it believes such restrictions are necessary to ensure the proper performance of the System. Any such restrictions shall be objectively determined and submitted to the Commission for approval pursuant to a rule change filing under Section 19(b) of the Exchange Act.

[Adopted: December 20, 2018]

Rule 506. Collection and Dissemination of Quotations

(a) Each Market Maker shall communicate to the Exchange its bids and offers in accordance with the requirements of Rule 602 of Regulation NMS under the Exchange Act and the Rules.

(b) The Exchange will disseminate to quotation vendors the highest bid and the lowest offer, and the aggregate quotation size associated therewith that is available to Public Customer Orders, in accordance with the requirements of Rule 602 of Regulation NMS under the Exchange Act.

(1) The Exchange shall disseminate an updated bid and offer price, together with the size associated with such bid and offer when:

(i) the Exchange's disseminated bid or offer price increases or decreases;

(ii) the size associated with the Exchange's disseminated bid or offer decreases; or

(iii) the size associated with the Exchange's bid (offer) increases by an amount greater than or equal to a percentage of the size associated with the previously disseminated bid (offer). Such percentage, which shall never be less than 10% or greater than 20%, shall be determined on a class-by-class basis by the Exchange and announced to the Membership through a Regulatory Circular.

(2) Executions will decrease the size associated with the Exchange's disseminated bid or offer by the amount of the execution.

(c) **Notification of Public Customer and Priority Customer Interest on the Book.**

(1) The Exchange will make available to subscribers to its data feeds and to all market participants through OPRA an indication that there is Public Customer interest included in the EBBOs disseminated by the Exchange.

(2) The Exchange will make available to subscribers to its Top of Market (ToM) data feed the quantity of Priority Customer contracts included in the EBBO disseminated by the Exchange.

(d) **Unusual Market Conditions.**

(1) An Exchange official designated by the Board shall have the power to determine that the level of trading activities or the existence of unusual market conditions is such that the Exchange is incapable of collecting, processing, and making available to quotation vendors the data for the option in a manner that accurately reflects the current state of the market on the Exchange. Upon making such a determination, the Exchange shall designate the market in such option to be "fast," and shall halt trading in the class or classes so affected.

(2) The Exchange will monitor the activity or conditions that caused a fast market to be declared, and a designated Exchange official shall review the condition of such market at least every thirty (30) minutes. Regular trading procedures shall be resumed by the Exchange when a designated Exchange official determines that the conditions supporting a fast market declaration no longer exist.

[Adopted: December 20, 2018]

Rule 507. Give Up of a Clearing Member

(a) **General.** For each transaction in which a Member participates, a Member may indicate the name of any Options Clearing Corporation ("OCC") number of a Clearing Member through which the transaction will be cleared ("Give Up"), provided the Clearing Member has not elected to Opt In, as defined and described in paragraph (b) below, and restrict one or more of its OCC number(s) ("Restricted OCC Number"). A Member may Give Up a Restricted OCC Number provided the Member has written authorization as described in paragraph (b)(2) below ("Authorized Member").

(b) **Opt In.** Clearing Members may request the Exchange restrict one or more of their OCC clearing numbers ("Opt In") as described in subparagraph (1) below. If a Clearing Member Opts In, the Exchange will require written authorization from the Clearing Member permitting a Member to Give Up a Clearing Member's Restricted OCC Number. An Opt In would remain in effect until the Clearing Member terminates the Opt In as described in subparagraph (3) below. If a Clearing Member does not Opt In, that Clearing Member's OCC number would be subject to Give Up by any Member.

(1) **Clearing Member Process to Opt In.** A Clearing Member may Opt In by sending a completed "Clearing Member Restriction Form" listing all Restricted OCC Numbers and Authorized Members. A Clearing Member may

elect to restrict one or more OCC clearing numbers that are registered in its name at OCC. The Clearing Member would be required to submit the Clearing Member Restriction Form to the Exchange's Membership Department as described on the form. Once submitted, the Exchange requires ninety days before a Restricted OCC Number is effective within the System.

(2) **Member Give Up Process for Restricted OCC Numbers**. A Member desiring to Give Up an Restricted OCC Number must become an Authorized Member. The Clearing Member will be required to authorize a Member as described in subparagraph (1) or (3), unless the Restricted OCC Number is already subject to a Letter of Guarantee that the Member is a party to, as set forth in paragraph (d) below.

(3) **Amendments to Authorized Member or Restricted OCC Numbers**. A Clearing Member may amend its Authorized Members or Restricted OCC Numbers by submitting a new Clearing Member Restriction Form to the Exchange's Membership Department indicated the amendment as described on the form. Once a Restricted OCC Number is effective within the System pursuant to paragraph (1) above, the Exchange may permit the Clearing Member to authorize, or remove authorization for, a Member to Give Up the Restricted OCC Number intra-day only in unusual circumstances, and on the next business day in all regular circumstances. The Exchange will promptly notify Members if they are no longer authorized to Give Up a Clearing Member's Restricted OCC Number. If a Clearing Member removes a Restricted OCC Number, any Member may Give Up that OCC clearing number once the removal has become effective on or before the next business day.

(c) **System**. The System will not allow an unauthorized Member to Give Up a Restricted OCC Number at the firm mnemonic level at the point of order entry.

(d) **Letter of Guarantee**. A clearing arrangement subject to a Letter of Guarantee would immediately permit the Give Up of a Restricted OCC Number by the Member that is party to the arrangement.

(e) An intentional misuse of this Rule is impermissible, and may be treated as a violation of Rule 301.

(f) Notwithstanding anything to the contrary in this Rule, if a Clearing Member that a Member has indicated as the Give Up rejects a trade, the Clearing Member that has issued a Letter of Guarantee pursuant to Rule 209, for such executing Member, shall be responsible for the clearance of the subject trade.

Interpretations and Policies:

.01 Nothing herein shall be deemed to preclude the clearance of Exchange Transactions by a non-Member pursuant to the Bylaws of the Clearing Corporation so long as a Clearing Member is also designated as having responsibility under these Rules for the clearance and comparison of such transactions.

[Adopted: December 20, 2018; amended March 11, 2019 (SR-EMERALD-2019-04)]

Rule 508. Unit of Trading

The unit of trading in each series of options traded on the Exchange shall be the unit of trading established for that series by the Clearing Corporation pursuant to the Rules of the Clearing Corporation and the agreements of the Exchange with the Clearing Corporation.

[Adopted: December 20, 2018]

Rule 509. Meaning of Premium Bids and Offers

(a) **General**. Except as provided in paragraph (b), bids and offers shall be expressed in terms of dollars per unit of the underlying security. (e.g., a bid of "7" shall represent a bid of $700 for an option contract having a unit of trading consisting of 100 shares of an underlying security, or a bid of $770 for an option contract having a unit of trading consisting of 110 shares of an underlying security.)

(b) **Special Cases.** Bids and offers for an option contract for which an adjusted unit of trading has been established in accordance with Rule 405 shall be expressed in terms of dollars per .01 part of the total securities and/or other property constituting such adjusted unit of trading. (e.g., an offer of "6" shall represent an offer of $600 on an option contract having a unit of trading consisting of 100 shares of an underlying security plus 10 rights.)

(c) **Mini-options.** Bids and offers for an option contract overlying 10 shares shall be expressed in terms of dollars per 1/10th part of the total value of the contract. An offer of ".50" shall represent an offer of $5.00 for an option contract having a unit of trading consisting of 10 shares.

[Adopted: December 20, 2018]

Rule 510. Minimum Price Variations and Minimum Trading Increments *(See below for amended Rule 510 which will become operative on June 29, 2019.)*

The Board may establish minimum trading increments or minimum price variations ("MPV") for options traded on the Exchange. Until such time as the Board makes a change in the increments or MPVs, the following principles shall apply:

(1) If the option contract is trading at less than $3.00 per option, $.05.

(2) If the option contract is trading at $3.00 per option or higher, $.10.

Interpretations and Policies:

.01 Notwithstanding any other provision of this Rule 510, the Exchange will operate a pilot program, scheduled to expire on June 30, 2019, to permit options classes to be quoted and traded in increments as low as $.01. The Exchange will specify which options trade in such pilot, and in what increments, in Listings Alerts distributed to Members and posted on the Exchange's website. The Exchange may replace any pilot classes that have been delisted with the next most actively traded multiply listed options classes that are not yet included in the pilot program, based on trading activity in the previous six months. The replacement classes may be added to the penny pilot on the second trading day in the first month of each quarter.

.02 The minimum price variation for bids and offers for mini-options shall be determined in accordance with Interpretation and Policy .08(d) to Rule 404.

[Adopted: December 20, 2018; amended February 19, 2019 (SR-EMERALD-2019-06); amended March 22, 2019 (SR-EMERALD-2019-16)]

The following Rule will become operative on June 29, 2019.

Rule 510. Minimum Price Variations and Minimum Trading Increments

The Board may establish minimum trading increments or minimum price variations ("MPV") for options traded on the Exchange. Until such time as the Board makes a change in the increments or MPVs, the following principles shall apply:

(1) If the option contract is trading at less than $3.00 per option, $.05.

(2) If the option contract is trading at $3.00 per option or higher, $.10.

Interpretations and Policies:

.01 Notwithstanding any other provision of this Rule 510, the Exchange will operate a pilot program, scheduled to expire on December 31, 2019, to permit options classes to be quoted and traded in increments as low as $.01. The Exchange will specify which options trade in such pilot, and in what increments, in Listings Alerts distributed to Members and posted on the Exchange's website. The Exchange may replace any pilot classes that have been delisted with the next most actively traded multiply listed options classes that are not yet included in the pilot program, based on trading activity in the previous six months. The replacement classes may be added to the penny pilot on the second trading day in the first month of each quarter.

.02 The minimum price variation for bids and offers for mini-options shall be determined in accordance with Interpretation and Policy .08(d) to Rule 404.

[Adopted: December 20, 2018; amended February 19, 2019 (SR-EMERALD-2019-06); amended March 22, 2019 (SR-EMERALD-2019-16); amended June 29, 2019 (SR-EMERALD-2019-23)]

Rule 511. Acceptance of Quotes and Orders

All bids or offers made and accepted on the Exchange in accordance with the Rules shall constitute binding contracts, subject to applicable requirements of the Rules and the Rules of the Clearing Corporation.

[Adopted: December 20, 2018]

Rule 512. [Reserved]

Rule 513. Submission of Orders and Clearance of Transactions

(a) **Order Identification**. When entering orders on the Exchange, each Member shall submit trade information in such form as may be prescribed by the Exchange in order to allow the Exchange to properly prioritize and match orders and quotations pursuant to Rule 514 and report resulting transactions to the Clearing Corporation.

(b) All transactions made on the Exchange shall be submitted for clearance to the Clearing Corporation, and all such transactions shall be subject to the Rules of the Clearing Corporation. Every Clearing Member shall be responsible for the clearance of the Exchange Transactions of such Clearing Member and of each Member who gives up such Clearing Member's name pursuant to a letter of authorization, letter of guarantee or other authorization given by such Clearing Member to such Member, which authorization must be submitted to the Exchange. This Rule will apply to all Clearing Members who either (i) have Restricted OCC Numbers with Authorized Members pursuant to Rule 507, or (ii) have non-Restricted OCC Numbers.

(c) On each business day at or prior to such time as may be prescribed by the Clearing Corporation, the Exchange shall furnish the Clearing Corporation a report of each Clearing Member's matched trades.

[Adopted: December 20, 2018; amended March 11, 2019 (SR-EMERALD-2019-04)]

Rule 514. Priority of Quotes and Orders

(a) **Definitions**. As provided in Rule 100, a "bid" is a quotation or limit order to buy option contracts and an "offer" is a quotation or limit order to sell option contracts. "Quote", "Quotation" and "eQuote" are defined and described in Rules 100 and 517, and may only be entered on the Exchange by Market Makers in the options classes to which they are appointed under Rule 602. The System may designate Market Maker quotes as either priority quotes or non-priority quotes in accordance with the provisions in Rule 517(b). Limit orders may be entered by Market Makers in certain circumstances as provided in the Rules and by Electronic Exchange Members (either as agent or as principal). "Priority Customer Orders" are defined in Rule 100. "Professional Interest" is defined in Rule 100 and includes,

among others things, limit orders for the account of Electronic Exchange Members and Market Makers. A "Directed Order" is defined in Rule 100.

(b) **Priority on the Exchange**. The highest bid and lowest offer shall have priority on the Exchange.

(c) **Trade Allocation**. The Exchange will determine to apply for each class of options one of the rules of trade allocation as described in paragraphs (1) and (2) below. The Exchange will specify which trade allocation rules will govern which classes of options, and specify any time the Exchange changes the trade allocation rule of an options class.

(1) **Price-Time Allocation**. Under this method, resting quotes and orders on the Book are prioritized according to price and time. If there are two or more quotes or orders at the best price then the trade is allocated among those quotes or orders in the order in which they were received by the System.

(2) **Pro-Rata Allocation**. Under this method, resting quotes and orders on the Book are prioritized according to price. If there are two or more quotes or orders at the best price then the contracts are allocated proportionally according to size (in a pro-rata fashion). If the executed quantity cannot be evenly allocated, the remaining contracts will be distributed one at a time based upon price-size-time priority.

(d) **Additional Priority Overlays Applicable to the Pro-Rata Allocation Method**. In connection with the allocation methodology set forth in Rule 514(c)(2), the Exchange may determine to apply, on a class-by-class basis, one or more of the following designated market participant overlay priorities in a sequence determined by the Exchange. The Exchange will issue a Regulatory Circular periodically which will specify which classes of options are subject to these additional priorities.

(1) **Priority Customer Orders**. When this priority overlay (the "Priority Customer Overlay") is in effect, the highest bid and lowest offer shall have priority except that Priority Customer Orders shall have priority over Professional Interest and all Market Maker interest at the same price. If there are two or more Priority Customer Orders for the same options series at the same price, priority shall be afforded to such Priority Customer Orders in the sequence in which they are received by the System.

(2) **Market Turner.** Market Turner means a market participant that was the first to enter an order or quote at a better price than the previous best disseminated Exchange price and such order or quote is continuously in the market until the order or quote trades. There may be a Market Turner for each price at which a particular order trades. When this priority overlay is in effect, the Market Turner has priority at the highest bid or lowest offer that he established. The Market Turner priority at a given price remains with the order or quote once it is earned. For example, if the market moves in the same direction as the direction in which the order from the Market Turner moved the market, and then the market moves back to the Market Turner's original price, the Market Turner retains priority at the original price. Market Turner priority cannot be established until after the opening transaction and/or the conclusion of the Opening Process and, once established, shall remain in effect until the conclusion of the trading session. The Market Turner overlay will never be in effect in conjunction with other priority overlays.

The Exchange may determine, on a class-by-class basis, to reduce the Market Turner priority to a percentage of each inbound order that is executable against the Market Turner. In such cases, the Market Turner may participate in the balance of an order after the Market Turner priority has been applied. To the extent the Market Turner order or quote is not fully exhausted; it shall retain Market Turner priority for subsequent inbound orders until the conclusion of the trading session.

(3) **Primary Lead Market Maker**. The Exchange may determine to grant Primary Lead Market Makers participation entitlements pursuant to the provisions of Rule 514(g). As indicated in Rule 514(g), the Primary Lead Market Maker participation entitlement may only be in effect when the Priority Customer Overlay is also in effect.

(4) **Directed Lead Market Maker**. The Exchange may determine to grant Directed Lead Market Makers participation entitlements pursuant to the provisions of Rule 514(h). As indicated in Rule 514(h), the Directed Lead Market Maker participation entitlement may only be in effect when the Priority Customer Overlay is also in effect.

(e) **Precedence of Market Maker Quotes and Orders for the Pro-Rata Allocation Method.** After executions resulting from Priority Overlays set forth in paragraph (d) above, when the pro-rata allocation method applies:

(1) If there is other interest at the NBBO, after all Priority Customer Orders (if any) at that price have been filled, executions at that price will be first allocated to other remaining Market Maker priority quotes, which have not received a participation entitlement, and have precedence over Professional Interest.

(2) If after all Market Maker priority quotes have been filled in accordance with (1) above and there remains interest at the NBBO, executions will be allocated to all Professional Interest at that price. Professional Interest is defined in Rule 100 and includes among other interest, Market Maker non-priority quotes (as described in Rule 517(b)(1)(iii)) and Market Maker orders in both assigned and non-assigned classes.

(f) **Quotes Interacting with Quotes**. In the event that a Market Maker's quotes interact with the disseminated quote(s) of other Market Makers, resulting in a "locked" quote (e.g., $1.00 bid - 1.00 offer) or "crossed" quote, a trade will occur immediately:

(1) **Quote Locks or Crosses the NBBO**. If the quote locks or crosses the NBBO and the EBBO is inferior to the NBBO, the System will post the quote internally as if it locks the NBBO, but will display the incoming quote one Minimum Price Variation away from the NBBO. The incoming quote will remain available for execution up to its original bid or down to its original offer provided that the execution price does not violate the NBBO.

(2) **Market Maker Locks or Crosses Own Quote**. If a Market Maker submits a quote or order that locks or crosses its own quote or order on the other side of the market, the earlier of the two entries will be cancelled and the incoming quote or order will be available to trade with quotes or orders from other market participants.

(g) **Primary Lead Market Maker Participation Entitlements.** A Primary Lead Market Maker will be assigned by the Exchange in each option class in accordance with Rule 602. The Primary Lead Market Maker participation entitlements shall not be in effect unless the Priority Customer Overlay is in effect and the participation entitlements shall only apply to any remaining balance after Priority Customer orders have been satisfied. The Primary Lead Market Maker participation entitlements are as follows:

(1) For each incoming order, if the Primary Lead Market Maker has a priority quote at the NBBO, its participation entitlement is equal to the greater of (i) the proportion of the total size at the best price represented by the size of its quote, or (ii) sixty percent (60%) of the contracts to be allocated if there is only one (1) other Market Maker quotation at the NBBO and forty percent (40%) if there are two (2) or more other Market Maker quotes at the NBBO. For purposes of allocation, all Market Maker priority interest at a certain price level shall be aggregated and all Market Maker non-priority interest (including quotes and orders) at a certain price level shall be aggregated.

(2) Small size orders will be allocated in full to the Primary Lead Market Maker if the Primary Lead Market Maker has a priority quote at the NBBO. The Exchange will review this provision quarterly and will maintain the small order size at a level that will not allow small size orders executed by the Primary Lead Market Maker to account for more than 40% of the volume executed on the Exchange. Small size orders are defined as five (5) or fewer contracts.

(h) **Directed Lead Market Maker Participation Entitlements.** An Electronic Exchange Member may designate a Lead Market Maker ("Directed Lead Market Maker") on orders it enters into the System ("Directed Orders"). The Directed Lead Market Maker must have an appointment in the relevant option class at the time of receipt of the Directed Order to be eligible to receive the Directed Lead Market Maker participation entitlement. Only Priority Customer Orders will be eligible to be directed by an Electronic Exchange Member. The Directed Lead Market Maker participation entitlement shall not be in effect unless the Priority Customer Overlay is in effect and the

participation entitlement shall only apply to any remaining balance after Priority Customer orders have been satisfied. The Directed Lead Market Maker participation entitlements are as follows:

(1) For each incoming order, if the Directed Lead Market Maker has a priority quote at the national best bid or offer ("NBBO"), its participation entitlement is equal to the greater of (i) the proportion of the total size at the best price represented by the size of its quote, or (ii) sixty percent (60%) of the contracts to be allocated if there is only one (1) other Market Maker quotation at the NBBO and forty percent (40%) if there are two (2) or more other Market Maker quotes at the NBBO, or (iii) one (1) contract. For purposes of allocation, all Market Maker priority interest at a certain price level shall be aggregated and all Market Maker non-priority interest (including quotes and orders) at a certain price level shall be aggregated.

(i) **Conditions of Participation Entitlements.** In allocating the participation entitlements set forth in Rule 514(g) to the Primary Lead Market Maker and Rule 514(h) to the Directed Lead Market Maker the following shall apply:

(1) In a class of options where both the Primary Lead Market Maker and the Directed Lead Market Maker participation entitlements are in effect and an Electronic Exchange Member has directed an order to a Lead Market Maker:

(i) if the Directed Lead Market Maker's priority quote is at the NBBO, the Directed Lead Market Maker's participation entitlement will supersede the Primary Lead Market Maker's participation entitlements for an order directed to a Lead Market Maker other than the Lead Market Maker who is the Primary Lead Market Maker, in which case the Primary Lead Market Maker's participation entitlements will supersede;

(ii) if the Directed Lead Market Maker's priority quote is not at the NBBO, the Primary Lead Market Maker's participation entitlement will apply to that order, provided the Primary Lead Market Maker's priority quote is at the NBBO: and

(iii) if neither the Directed Lead Market Maker's nor the Primary Lead Market Maker's priority quote is at the NBBO then executed contracts will be allocated in accordance with the pro-rata allocation methodology as described in paragraphs (c) and (e) above without regard to any participation entitlement.

(2) If an incoming order has not been directed to a Lead Market Maker by an Electronic Exchange Member, then the Primary Lead Market Maker's participation entitlement will apply to that order, provided the Primary Lead Market Maker's priority quote is at the NBBO.

(3) The participation entitlements shall not be in effect unless the Priority Customer Overlay is also in effect and the participation entitlements shall only apply to any remaining balance after Priority Customer orders have been satisfied.

(4) Neither the Primary Lead Market Maker nor the Directed Lead Market Maker may be allocated a total quantity greater than the quantity they are quoting at the execution price. If the Primary Lead Market Maker's or the Directed Lead Market Maker's allocation of an order pursuant to its participation entitlement is greater than its pro-rata share of priority quotes at the best price at the time that the participation entitlement is granted, neither the Primary Lead Market Maker nor the Directed Market Lead Maker shall receive any further allocation of that order.

(5) In establishing the counterparties to a particular trade, the participation entitlements must first be counted against the Primary Lead Market Maker's highest priority bids and offers or the Directed Lead Market Maker's highest priority bids or offers.

(6) These participation entitlements only apply to the allocation of executions among competing Market Maker priority quotes existing on the Book at the time the order is received by the Exchange. No market participant is allocated any portion of an execution unless it has an existing interest at the execution price. Moreover, no market participant can execute a greater number of contracts than is associated with its interest at a given price. Accordingly,

the Primary Lead Market Maker and the Directed Lead Market Maker participation entitlements contained in this Rule are not guarantees.

[Adopted: December 20, 2018]

Rule 515. Execution of Orders and Quotes

(a) **General.** Incoming orders and quotes and orders reevaluated pursuant to Rule 515 that are executable against orders and quotes in the System will be executed by the System in accordance with the following provisions, provided such orders and quotes will not be executed at prices inferior to the NBBO (as defined in Rules 100 and 1400(j)). Orders and quotes that could not be executed because the executions would be at prices inferior to the NBBO will be handled in accordance with the Managed Interest Process for orders described in paragraph (c)(1)(ii) below or in accordance with process for handling Market Maker orders and quotes described in paragraph (d) below.

Post-Only Orders are defined in Rule 516(m). Post-Only Quotes are defined in Rule 517(a)(1)(i). Post-Only Orders and Post-Only Quotes are together referred to herein as "Post-Only OQ." Post-Only OQs are evaluated with respect to locking or crossing other orders or quotes as follows: (i) if a Post-Only OQ would lock or cross the current opposite side EBBO where the EBBO is the NBBO (the Post-Only OQ locks or crosses an order or quote on the System), the Post-Only OQ will be handled pursuant to the Post-Only Price Process under Rule 515(i); or (ii) if a non-Market Maker Post-Only Order would not lock or cross an order or quote on the System but would lock or cross the current opposite side ABBO where the EBBO is inferior to the ABBO, the Post-Only Order will be handled pursuant to the Managed Interest Process under Rule 515(c)(1)(ii), or (iii) if a Market Maker Post-Only OQ would not lock or cross an order or quote on the System but would lock or cross the current opposite side ABBO where the EBBO is inferior to the ABBO, the Market Maker Post-Only OQ will be handled in accordance with Rule 515(d) below. The handling of a Post-Only OQ may move from one process to the other (e.g., a Post-Only Order initially handled under the Post-Only Price Process may upon reevaluation be handled under the Managed Interest Process under Rule 515(c)(1)(ii) if the EBBO changes and the Post-Only Order no longer locks or crosses an order on the System but locks or crosses the ABBO).

(b) **Order Locks or Crosses the NBBO and the EBBO is at the NBBO.** If the EBBO is at the NBBO, upon receipt of an order which locks or crosses the NBBO (other than a Post-Only Order which is handled pursuant to the Post-Only Price Process under paragraph (i) below), the System will immediately execute the new incoming order against the EBBO at or better than the EBBO price for a size which is the lesser of (1) the new incoming order; or (2) the EBBO size.

(c) **Non-Market Maker Orders That Could Not Be Executed or Could Not Be Executed in Full at the Original NBBO Upon Receipt.** An incoming non-Market Maker order that could not be executed or could not be executed in full at the original NBBO upon receipt will be handled in accordance with the following provisions. In addition, non-Market Maker orders that are reevaluated by the System for execution pursuant to an order's price protection instructions that could not be executed or could not be executed in full at the NBBO at the time of reevaluation will be handled in accordance with the following provisions. The following paragraphs will apply to orders both (i) upon receipt by the System, and (ii) upon reevaluation by the System for execution and according to the price protections designated on the order. The term "initiating order" will be used in the following paragraphs to refer to (i) the incoming order that could not be executed, (ii) the order reevaluated by the System for execution that could not be executed, or (iii) the remaining contracts of the incoming order or reevaluated order that could not be executed in full. The term "original NBBO" will be used in the following paragraphs to refer to the NBBO that existed at time of receipt of the initiating order or the NBBO at time of reevaluation of an order pursuant to Rule 515.

(1) **Price Protection on Non-Market Maker Orders**. The System will apply the following price protection process to all non-Market Maker orders received during a trading session. The price protection process prevents an order from being executed beyond the price designated in the order's price protection instructions (the "price protection limit"). The price protection instructions are expressed in units of MPV away from the NBBO at the time of the order's receipt, or the EBBO if the ABBO is crossing the EBBO. Market participants may designate price protection instructions on an order by order basis within a minimum and maximum number of MPVs away from the

NBBO at the time of receipt, or the EBBO if the ABBO is crossing the EBBO. The minimum and maximum number of MPVs will be determined by the Exchange and announced to Members through a Regulatory Circular, provided that the minimum shall be no less than zero (0) MPVs and the maximum shall be no more than twenty (20) MPVs. If an order does not contain price protection instructions, the Exchange will assign a default price protection instruction, which will be within one (1) to five (5) MPVs away from the NBBO at the time of receipt, or the EBBO if the ABBO is crossing the EBBO, which default price protection instruction shall be determined by the Exchange and announced to Members through a Regulatory Circular. When triggered, the price protection process will cancel an order or the remaining contracts of an order. The System will not execute such orders at prices inferior to the current NBBO. The price protection process set forth in this paragraph (c)(1) will not apply to orders received (A) prior to the open or during a trading halt; or (B) during a prior trading session and that remain on the Book following the Opening Process (as described in Rule 503). Further, the price protection process set forth in this paragraph (c)(1) will not apply to Intermarket Sweep Orders ("ISO"), which will be handled in accordance with paragraph (g) below. Immediate-or-Cancel ("IOC") Orders will be handled in accordance with paragraph (e) below, and Fill-or-Kill ("FOK") Orders will be handled in accordance with paragraph (f) below. The System will handle Market Maker quotes and orders in accordance with paragraph (d) below.

(i) **Orders Eligible For Routing**. The System will seek to trade the initiating order to the extent possible at MIAX Emerald and route an Eligible Order (as defined in Rule 529) to the ABBO until the first of: (A) the order is fully executed; (B) the order has traded or routed to and including its price protection limit, at which any remaining contracts will be canceled; or (C) the order has traded or routed to and including its limit price, at which the System will display and book the initiating order at its limit price and will reevaluate the order for execution pursuant to Rule 515. The System will not execute such orders at prices inferior to the current NBBO. The System will handle any routing of the order in accordance with the order routing provisions set forth in Rule 529.

(ii) **Managed Interest Process for Non-Routable Orders.**

(A) If the initiating order is non-routable (for example, the Public Customer Order was marked "Do Not Route" or the order was a Post-Only Order being handled under this subsection (c)(1)(ii)) the order will never be routed outside of the Exchange regardless of prices displayed by away markets. A non-routable initiating order may execute on the Exchange at a price equal to or better than, but not inferior to, the ABBO. The System will not execute such orders at prices inferior to the current NBBO. The System will seek to trade an initiating order or a resting Post-Only Order until the first of: (A) the order is fully executed; (B) the order has traded to and including its price protection limit at which time any remaining contracts are canceled; or (C) the order has traded to and including its limit price at which time the System will attempt to display and book the initiating order at its limit price and will reevaluate the order for execution pursuant to this Rule 515.

(B) If the limit price of an order locks or crosses the current opposite side ABBO and the EBBO is inferior to the ABBO, the System will display the order one MPV away from the current opposite side ABBO, and book the order at a price that will lock the current opposite side ABBO. Should the ABBO price change to an inferior price level, the order's Book price will continuously re-price to lock the new ABBO and the managed order's displayed price will continuously re-price one MPV away from the new ABBO until (A) the order has traded to and including its limit price, (B) the order has traded to and including its price protection limit at which time any remaining contracts are cancelled, (C) the order is fully executed or (D) the order is cancelled.

(C) 1. If the Exchange receives a new order or quote on the opposite side of the market from the managed order that can be executed, the System will immediately execute the remaining contracts from the initiating order to the extent possible at the order's current Book price, provided that the execution price does not violate the current NBBO.

2. If the Exchange receives a new Post-Only OQ on the opposite side of the market from an order being managed under this subsection (c)(1)(ii) which is not a Post-Only Order and the new Post-Only OQ locks or crosses the Book price of the resting order, the Exchange will reject the new Post-Only OQ.

3. If the Exchange receives a new Post-Only OQ on the opposite side of the market from a Post-Only Order being managed under this subsection (c)(1)(ii) and the new Post-Only OQ locks or crosses the Book price of the resting Post-Only Order, the Exchange will re-book the resting Post-Only Order at the same price as its displayed price and manage the resting Post-Only Order and the new Post-Only OQ under the POP Process of subsection (i) of this Rule 515.

4. If unexecuted contracts remain from the initiating order, the order's size will be revised and the EBBO disseminated to reflect the order's remaining contracts.

(D) An order subject to the Managed Interest Process under this subsection (c)(1)(ii) will retain its original limit price irrespective of the prices at which such order is booked and displayed and will maintain its original timestamp, provided however each time the order is booked and displayed at a more aggressive Book price, the order will receive a new timestamp. All orders that are re-booked and re-displayed pursuant to the Managed Interest Process under this subsection (c)(1)(ii) and all Market Maker orders and quotes managed under subsection (d) that are re-booked and re-displayed pursuant to subsection (d) will retain their priority as compared to other orders subject to the Managed Interest Process and all Market Maker orders and quotes managed under subsection (d), based upon the time such managed order or quote was initially received by the Exchange. Following the initial booking and display of an order subject to the Managed Interest Process, an order will only be re-booked and re-displayed to the extent it achieves a more aggressive price, provided, however, that the Exchange will re-book an order at the same price as the displayed price in the event such order's displayed price is locked or crossed by the ABBO. Such event will not result in a change in priority for the order at its displayed price.

(E) The Booked and displayed prices of an order subject to the Managed Interest Process may be adjusted once or multiple times depending on changes to the prevailing ABBO.

(F) When the System opens without an opening transaction, and instead opens by disseminating the Exchange's best bid and offer among quotes and orders that exist in the System at that time as described in Rule 503(f)(1), non-routable orders then in the System that cross the opposite side ABBO will be cancelled and are not included in the Managed Interest Process.

(2) **[Reserved]**

(d) **Handling of Market Maker Orders and Quotes.**

(i) If a Market Maker order or quote could not be executed or could not be executed in full upon receipt, the System will continue to execute the Market Maker's order or quote at multiple prices until (A) the Market Maker's quote has been exhausted or its order has been completely filled; (B) the executions have reached the Market Maker's limit price; or (C) further executions will trade at a price inferior to the ABBO, whichever occurs first.

(ii) For a Market Maker order or quote that locks or crosses the opposite side ABBO and the EBBO is inferior to the ABBO, the System will manage such order or quote (including a Market Maker Post-Only OQ being handled under this subsection (d)) in accordance with the following. Once the System can no longer execute the Market Maker's order or quote, the System will display the order or quote one MPV away from the current opposite side ABBO and book the order or quote at a price that will lock the current opposite side ABBO. Should the ABBO price change to an inferior price level, the Market Maker order or quote's Book price will continuously re-price to lock the new ABBO and the Market Maker order or quote's displayed price will continuously re-price one MPV away from the new ABBO, until the Market Maker order or quote reaches its original limit price, is fully executed or cancelled.

(iii) 1. If the Exchange receives a new order or quote on the opposite side of the market from the Market Maker order or quote that can be executed, the System will immediately execute the remaining contracts from the Market Maker order or quote to the extent possible at the Market Maker order or quote's current Book bid or offer price, provided that the execution price does not violate the current NBBO.

2. If the Exchange receives a new Post-Only OQ on the opposite side of the market from a Market Maker order or quote being managed under this subsection (d) which is not a Post-Only OQ and the new Post-Only OQ locks or crosses the Book price of the resting Market Maker order or quote, the Exchange will reject the new Post-Only OQ.

3. If the Exchange receives a new Post-Only OQ on the opposite side of the market from a Post-Only OQ being managed under this subsection (d) and the new Post-Only OQ locks or crosses the Book price of the resting Post-Only OQ, the Exchange will re-book the resting Post-Only OQ at the same price as its displayed price and manage the resting Post-Only OQ and the new Post-Only OQ under the POP Process of subsection (i) of this Rule 515.

4. If unexecuted contracts remain from the Market Maker's order or quote, the order or quote size will be revised and the EBBO disseminated to reflect the order or quote's remaining contracts.

(iv) A Market Maker order or quote subject to this subsection (d) will retain its original limit price irrespective of the prices at which such order or quote is booked and displayed and will maintain its original timestamp, provided however each time the order or quote is booked and displayed at a more aggressive Book price, the order or quote will receive a new timestamp. All orders and quotes that are re-booked and re-displayed pursuant to this subsection (d) and all orders that re-booked and re-displayed pursuant to subsection (c)(1)(ii) will retain their priority as compared to other orders subject to the Managed Interest Process under subsection (c)(1)(ii) and all Market Maker orders and quotes managed under this subsection (d), based upon the time such managed order or quote was initially received by the Exchange. Following the initial booking and display of an order or quote subject to this subsection (d), an order or quote will only be re-booked and re-displayed to the extent it achieves a more aggressive price, provided, however, that the Exchange will re-book an order or quote at the same price as the displayed price in the event the displayed price of such order or quote is locked or crossed by the ABBO. Such event will not result in a change in priority for the order or quote at its displayed price.

(v) The Booked and displayed prices of an order or quote subject to this subsection (d) may be adjusted once or multiple times depending on changes to the prevailing ABBO.

(e) **Handling of Immediate-or-Cancel ("IOC") Orders.** As defined in Rule 516(c), an IOC Order is a limit order that is to be executed in whole or in part upon receipt, with any portion not so executed cancelled. Market participants may designate price protection instructions on an order by order basis for IOC Orders in the manner described in paragraph (c)(1) above. If an IOC Order is executable against orders and quotes in the System and MIAX Emerald is the only exchange at the NBBO when an IOC Order is received by the System, the System will execute the IOC Order at the NBBO price or better and if the IOC Order could not be executed in full the System may also execute the IOC Order's remaining contracts at multiple prices not to exceed the IOC Order's limit price or the order's price protection limit, provided the execution does not trade at a price inferior to the current ABBO. If other exchanges in addition to MIAX Emerald are also at the NBBO when the IOC Order is received, the System will execute the IOC Order at the NBBO price and cancel any remaining unexecuted contracts from the IOC Order. If the EBBO is not at the NBBO at the time the IOC Order is received or the IOC Order is not executable against any orders or quotes in the System, the IOC Order will be immediately cancelled.

(f) **Handling of Fill-or-Kill ("FOK") Orders.** As defined in Rule 516(b)(2), an FOK Order is a limit order that is to be executed in its entirety at a single price upon receipt and if not so executed cancelled. Market participants may designate price protection instructions on an order by order basis for FOK Orders in the manner described in paragraph (c)(1) above. If an FOK Order is fully executable against orders and quotes in the System and MIAX Emerald is at the NBBO when an FOK Order is received by the System, the System will execute the FOK Order at the NBBO price or better and if the FOK Order could not be executed in full at a single price, the FOK Order is cancelled. If the EBBO is not at the NBBO at the time the FOK Order is received or the FOK Order is not fully executable against any orders or quotes in the System, the FOK Order will be immediately cancelled.

(g) **Handling of Intermarket Sweep Orders and Intermarket Sweep eQuote ("ISOs").** As defined in Rule 516(f) and Rule 517(a)(2)(vi), ISOs are immediately executable in the System and are not eligible for routing to another

exchange. As noted above, ISOs will not be handled in accordance with the price protection processes set forth in paragraph (c). The System will execute an ISO at multiple prices until (i) the ISO has been exhausted or its order has been completely filled; or (ii) the executions have reached the ISO's limit order price, whichever occurs first. Unexecuted contracts remaining from an ISO order will be immediately cancelled.

(h) **Crossing Orders.**

(1) Customer Cross Orders, as defined in Rule 516(i), are automatically executed upon entry provided that the execution (i) is at or between the best bid and offer on the Exchange; (ii) is not at the same price as a Priority Customer Order on the Exchange's Book; and (iii) will not trade at a price inferior to the NBBO. If trading interest exists on the MIAX Emerald Book that is subject to the Managed Interest Process pursuant to Rule 515(c)(1)(ii) when the Exchange receives a Customer Cross Order, the System will reject the Customer Cross Order. If trading interest exists that is subject to a PRIME Auction or PRIME Solicitation Auction pursuant to Rule 515A when the Exchange receives a Customer Cross Order, the System will reject the Customer Cross Order. Customer Cross Orders will be automatically canceled if they cannot be executed. Rule 520, Interpretation and Policy .01 applies to the entry and execution of Customer Cross Orders.

(2) Qualified Contingent Cross Orders, as defined in Rule 516(j), are automatically executed upon entry provided that the execution (i) is not at the same price as a Priority Customer Order on the Exchange's Book; and (ii) is at or between the NBBO. If trading interest exists on the MIAX Emerald Book that is subject to the Managed Interest Process pursuant to Rule 515(c)(1)(ii) when the Exchange receives a Qualified Contingent Cross Order, the System will reject the Qualified Contingent Cross Order. If trading interest exists that is subject to a PRIME Auction or PRIME Solicitation Auction pursuant to Rule 515A when the Exchange receives a Qualified Contingent Cross Order, the System will reject the Qualified Contingent Cross Order. Qualified Contingent Cross Orders will be automatically canceled if they cannot be executed.

(3) **Complex Customer Cross ("cC2C") Orders**. cC2C Orders, as defined in Rule 518(b)(5), are automatically executed upon entry provided that the execution is at least $0.01 better than (inside) the icEBBO (as defined in Rule 518(a)(12)) price or the best net price of a complex order (as defined in Rule 518(a)(5)) on the Strategy Book (as defined in Rule 518(a)(17)), whichever is more aggressive. The System will reject a cC2C Order if, at the time of receipt of the cC2C Order: (i) the strategy is subject to a cPRIME Auction pursuant to Rule 515A, Interpretation and Policy .12 or to a Complex Auction pursuant to Rule 518(d); or (ii) any component of the strategy is subject to a SMAT Event as described in Rule 518(a)(16).

(A) cC2C Orders will be automatically canceled if they cannot be executed.

(B) cC2C Orders may only be entered in the minimum trading increments applicable to complex orders under Rule 518(c)(1)(i).

(C) Rule 520, Interpretation and Policy .01, applies to the entry and execution of cC2C Orders.

(D) The Exchange will determine, on a class-by-class basis, the option classes in which cC2C Orders are available for trading on the Exchange, and will announce such classes to Members via Regulatory Circular.

(4) **Complex Qualified Contingent Cross ("cQCC") Orders**. cQCC Orders, as defined in Rule 518(b)(6), are automatically executed upon entry provided that, with respect to each option leg of the cQCC Order, the execution (i) is not at the same price as a Priority Customer Order on the Exchange's Book; and (ii) is at or between the NBBO. The System will reject a cQCC Order if, at the time of receipt of the cQCC Order: (i) the strategy is subject to a cPRIME Auction pursuant to Rule 515A, Interpretation and Policy .12 or to a Complex Auction pursuant to Rule 518(d); or (ii) any component of the strategy is subject to a SMAT Event as described in Rule 518(a)(16).

(A) cQCC Orders will be automatically canceled if they cannot be executed.

(B) cQCC Orders may only be entered in the minimum trading increments applicable to complex orders under Rule 518(c)(1)(i).

(C) The Exchange will determine, on a class-by-class basis, the option classes in which cQCC Orders are available for trading on the Exchange, and will announce such classes to Members via Regulatory Circular.

(i) **Post-Only Price Process.**

(1) **General**. Post-Only Orders are defined in Rule 516(m). Post-Only Quotes are defined in Rule 517(a)(1)(i). Post-Only Orders and Post-Only Quotes are together referred to herein as "Post-Only OQ." The following paragraphs will apply to a Post-Only OQ where the limit price of a Post-Only OQ locks or crosses the current opposite side EBBO where the EBBO is the NBBO (the Post-Only OQ locks or crosses an order or quote on the System) both (i) upon receipt by the System, and (ii) upon reevaluation by the System. A Post-Only OQ will never route to another exchange.

(2) **Price Protection for Post-Only Orders**. The System will apply price protection to all non-Market Maker Post-Only Orders being handled under this subsection (i) in accordance with subsection (c)(1) above.

(3) **Post-Only Price Process.**

(i) A Post-Only OQ subject to the process set forth in this subsection (i) (the "Post-Only Price Process" or "POP Process") may execute on the Exchange at a price equal to or better than, but not inferior to, the ABBO. The System will not execute a Post-Only OQ at prices inferior to the current NBBO. The System will seek to trade the resting Post-Only OQ until the first of: (A) the Post-Only OQ is fully executed; (B) the Post-Only OQ has traded to and including its price protection limit at which time any remaining contracts are canceled; or (C) the Post-Only OQ has traded to and including its limit price at which time the System will attempt to display and book the initiating order or quote at its limit price and will reevaluate the order or quote for execution pursuant to this Rule 515.

(ii) If the limit price of a Post-Only OQ locks or crosses the current opposite side EBBO where the EBBO is the NBBO (the Post-Only OQ locks or crosses an order or quote on the System), the Post-Only OQ will be handled in accordance with the POP Process set forth in this subsection (i) and the System will display and book the Post-Only OQ one MPV away from the current opposite side EBBO. Should the EBBO price change to an inferior price level, the Post-Only OQ's Book price and displayed price will continuously re-price to one MPV away from new EBBO until (A) the Post-Only OQ has traded to and including its limit price, (B) the Post-Only OQ has traded to and including its price protection limit at which time any remaining contracts are cancelled, (C) the Post-Only OQ is fully executed or (D) the Post-Only OQ is cancelled.

(iii) (A) If the Exchange receives a new order or quote on the opposite side of the market from the Post-Only OQ that can be executed, the System will immediately execute the remaining contracts from the resting Post-Only OQ to the extent possible at the Post-Only OQ's current Book price, provided that the execution price does not violate the current NBBO.

(B) If the Exchange receives a new Post-Only OQ on the opposite side of the market from a Post-Only OQ being managed under this subsection (i) which locks or crosses the Book price of the resting Post-Only OQ, the Exchange will book and display the new Post-Only OQ one MPV away from the current opposite side EBBO.

(C) If unexecuted contracts remain from the resting Post-Only OQ, the size of the Post-Only OQ will be revised and the EBBO disseminated to reflect the Post-Only OQ's remaining contracts of the Post-Only OQ.

(iv) A Post-Only OQ subject to the POP Process under this subsection (i)(3) will retain its original limit price irrespective of the prices at which such Post-Only OQ is booked and displayed and will maintain its

original timestamp, provided however each time the Post-Only OQ is booked and displayed at a more aggressive Book price, the Post-Only OQ will receive a new timestamp. In the event the EBBO changes such that a Post-Only OQ subject to the POP Process would be able to be booked and displayed at its actual limit price, the Post-Only OQ will receive a new timestamp. All Post-Only OQs that are re-ranked and re-displayed pursuant to the POP Process will retain their priority as compared to other Post-Only OQs subject to the POP Process based upon the time such Post-Only OQ was initially received by the Exchange. Following the initial ranking and display of a Post Only OQ subject to the POP Process, a Post Only OQ will only be re-ranked and re-displayed to the extent it achieves a more aggressive price, provided, however, that the Exchange will re-book a Post-Only OQ at the same price as the displayed price in the event such Post-Only OQ's displayed price is locked or crossed by the EBBO. Such event will not result in a change in priority for the Post-Only OQ at its displayed price.

(v) The Booked and displayed prices of a Post-Only OQ subject to the POP Process may be adjusted once or multiple times depending on changes to the prevailing EBBO.

Interpretations and Policies:

.01 **Reserved**

.02 **Uncrossing of Orders and Quotes.**

(a) In the course of the Managed Interest Process for Non-Routable Orders as provided in subparagraph (c)(1)(ii) or the management of a Market Maker order or quote as provided in subparagraph (d) (such Non-Routable Orders and Market Maker orders and quotes, "Handled Interest"), if Handled Interest becomes tradable at multiple price points on MIAX Emerald due to the ABBO transitioning from a crossed state to an uncrossed state, the midpoint of the EBBO, rounded up to the nearest MPV if necessary, will be used for the initial trade price for the Handled Interest. If locking or crossing interest remains, the next trade occurs at the Book price of the interest with lesser size. The Post-Only instruction on any Post-Only OQ included in the Handled Interest will be ignored for Post-Only OQs subject to the ABBO transition from a crossed state to an uncrossed state pursuant to this Interpretation and Policy .02.

(b) Trades for non-Post-Only OQs included in the Handled Interest will continue to occur until (i) all locking or crossing interest has been satisfied, (ii) the ABBO is reached at which time the interest will be managed according to subparagraph (c)(1)(ii) or subparagraph (d), as applicable, (iii) the Handled Interest's limit price is reached at which time any remaining contracts will be booked, or (iv) the Handled Interest's price protection limit is reached at which time any remaining contracts will be canceled.

(c) Trades for Post-Only OQs included in the Handled Interest will then be handled as follows: (i) if the Post-Only OQ would lock or cross the current opposite side EBBO where the EBBO is the NBBO, the Post-Only OQ will be handled pursuant to the POP Process under Rule 515(i) above; (ii) if a non-Market Maker Post-Only Order would not lock or cross an order or quote on the System but would lock or cross the current opposite side ABBO where the EBBO is inferior to the ABBO, the Post-Only Order will be handled pursuant to the Managed Interest Process under Rule 515(c)(1)(ii) above; and (iii) if a Market Maker Post-Only OQ would not lock or cross an order or quote on the System but would lock or cross the ABBO where the EBBO is inferior to the ABBO, the Market Maker Post-Only OQ will be handled in accordance with Rule 515(d) above.

.03 **[Reserved]**

.04 Immediately following the commencement of a trading halt pursuant to Rule 504 and at the end of each trading session, the System will cancel an order which was managed under this Rule 515 where the order's price protection limit for a buy (sell) order is lower (higher) than the order's effective limit price. For purposes of this Rule 515, the effective limit price for: (i) a limit order will be the order's limit price; (ii) a market order to buy will be the maximum price permitted by the Exchange's System; and (iii) a market order to sell will be the lowest MPV as established by

Rule 510 (either $.01 for option classes quoted and traded in increments as low as $.01, or $.05 for option classes quoted and traded in increments as low as $.05).

[Adopted: December 20, 2018; amended February 22, 2019 (SR-EMERALD-2019-08)]

Rule 515A. MIAX Emerald Price Improvement Mechanism ("PRIME") and PRIME Solicitation Mechanism

(a) **Price Improvement Mechanism ("PRIME").** PRIME is a process by which a Member may electronically submit for execution ("Auction") an order it represents as agent ("Agency Order") against principal interest, and/or an Agency Order against solicited interest.

(1) **Auction Eligibility Requirements.** A Member (the "Initiating Member") may initiate an Auction provided all of the following are met:

(i) the Agency Order is in a class designated as eligible for PRIME as determined by the Exchange and within the designated Auction order eligibility size parameters as such size parameters are determined by the Exchange; and

(ii) the Initiating Member must stop the entire Agency Order as principal or with a solicited order at the better of the NBBO or the Agency Order's limit price (if the order is a limit order).

(iii) With respect to Agency Orders that have a size of less than 50 contracts, if at the time of receipt of the Agency Order, the NBBO has a bid/ask differential of $0.01, the System will reject the Agency Order.

(iv) Post-Only OQs may not participate in PRIME as an Agency Order, principal interest or solicited interest. Post-Only OQs received during a PRIME Auction will be rejected.

(2) **Auction Process.** Only one Auction may be ongoing at any given time in an option and Auctions in the same option may not queue or overlap in any manner. The System will reject an Agency Order if, at the time of receipt of the Agency Order, the option is in an Auction or is a component of a complex strategy that is the subject of a cPRIME Auction, as defined below, or a Complex Auction pursuant to Rule 518(d). The Auction may not be cancelled and shall proceed as follows:

(i) **Auction Period and Request for Responses (RFRs).**

(A) To initiate the Auction, the Initiating Member must mark the Agency Order for Auction processing, and specify (i) a single price at which it seeks to cross the Agency Order (with principal interest and/or a solicited order) (a "single-price submission"), including whether the Initiating Member elects to have last priority in allocation, or (ii) that it is willing to automatically match ("auto-match") as principal the price and size of all Auction responses up to an optional designated limit price in which case the Agency Order will be stopped at the better of the NBBO, or the Agency Order's limit price. For both single price submissions and auto-match, if the EBBO on the same side of the market as the Agency Order represents a limit order on the Book, the stop price must be at least $0.01 increment better than the booked order's limit price. Once the Initiating Member has submitted an Agency Order for processing pursuant to this subparagraph, such submission may not be modified or cancelled. For both a single price submission and auto-match, the stopped price specified by the Initiating Member on the Agency Order shall be the "initiating price" for the Auction.

(B) When the Exchange receives a properly designated Agency Order for auction processing, a Request for Responses ("RFR") detailing the option, side, size, and initiating price will be sent to all subscribers of the Exchange's data feeds.

(C) The RFR will last for a period of time, as determined by the Exchange and announced through a Regulatory Circular. The RFR will be no less than 100 milliseconds and no more than 1 second.

(D) Members may submit responses to the RFR (specifying prices and sizes). RFR responses shall be an Auction-or-Cancel ("AOC") Order or an AOC eQuote. The System will reject RFR responses submitted with a price that is not equal to or better than the initiating price.

(E) RFR responses shall not be visible to other Auction participants, and shall not be disseminated to OPRA.

(F) The minimum price increment for RFR responses and for the Initiating Member's submission shall be $0.01 increment, regardless if the class trades in another increment.

(G) An RFR response with a size greater than the size of the Agency Order will be capped at the size of the Agency Order.

(H) RFR responses may be cancelled.

(ii) **Conclusion of Auction**. The Auction shall conclude at the sooner of (A) through (G) below with the Agency Order executing pursuant to paragraph (iii) below.

(A) The end of the RFR period;

(B) Upon receipt by the System of an unrelated order (in the same option as the Agency Order) on the opposite side of the market from the RFR responses, that is marketable against either the NBBO, the initiating price, or the RFR responses;

(C) Upon receipt by the System of an unrelated order (in the same option as the Agency Order) on the same side of the market as the RFR responses, that is marketable against the NBBO.

(D) Upon receipt by the System of an unrelated limit order (in the same option as the Agency Order) on the opposite side of the market from the Agency Order that improves any RFR response;

(E) Any time an RFR response matches the NBBO on the opposite side of the market from the RFR responses;

(F) Any time there is a quote lock in the subject option on the Exchange pursuant to Rule 1402; or

(G) Any time there is a trading halt in the option on the Exchange.

(iii) **Order Allocation**. At the conclusion of the Auction, the Agency Order will be allocated at the best price(s) pursuant to the matching algorithm in effect for the class subject to the following:

(A) Such best prices include non-Auction quotes and orders.

(B) Priority Customer orders resting on the Book before, or that are received during, the Response Time Interval and Priority Customer RFR responses shall, collectively have first priority to trade against the Agency Order. The allocation of an Agency Order against the Priority Customer orders resting in the Book, Priority Customer orders received during the Response Time Interval, and Priority Customer RFR responses shall be in the sequence in which they are received by the System.

(C) Market Maker priority quotes and RFR responses from Market Makers with priority quotes will collectively have second priority. The allocation of Agency Orders against these contra sided quotes and RFR responses shall be on a size pro rata basis as defined in Rule 514(c)(2).

(D) Professional Interest orders resting in the Book, Professional Interest orders placed in the Book during the Response Time Interval, Professional Interest quotes, and Professional Interest RFR responses will collectively have third priority. The allocation of Agency Orders against these contra sided orders and RFR Responses shall be on a size pro rata basis as defined in Rule 514(c)(2).

(E) No participation entitlement shall apply to orders executed pursuant to this Rule.

(F) If an unrelated market or marketable limit order on the opposite side of the market as the Agency Order was received during the Auction and ended the Auction, such unrelated order shall trade against the Agency Order at the midpoint of the best RFR response (or in the absence of a RFR response, the initiating price) and the NBBO on the other side of the market from the RFR responses (rounded towards the disseminated quote when necessary).

(G) If an unrelated non-marketable limit order on the opposite side of the market as the Agency Order was received during the Auction and ended the Auction, such unrelated order shall trade against the Agency Order at the midpoint of the best RFR response and the unrelated order's limit price (rounded towards the unrelated order's limit price when necessary).

(H) Notwithstanding (a)(2)(iii)(C), or (D) above, if the best price equals the Initiating Member's single-price submission, the Initiating Member's single-price submission shall be allocated the greater of one contract or a certain percentage of the Agency Order, which percentage will be determined by the Exchange and may not be larger than 40%, subject to the provisions of Interpretation and Policy .10 below. However, if only one Member's response (subject to the provisions of Interpretation and Policy .11 below) matches the Initiating Member's single price submission then the Initiating Member may be allocated up to 50% of the Agency Order, subject the provisions of Interpretation and Policy .10 below. Thereafter, contracts shall be allocated among remaining quotes, orders and auction responses (i.e., interests other than the Initiating Member) at the single price submission price in accordance with the matching algorithm in effect for the affected class as described in subparagraph (a)(2)(iii) above. If all Member responses are filled (i.e., no other interest remains at the single-price submission price), any remaining contracts will be allocated to the Initiating Member at the single-price submission price.

(I) Notwithstanding (a)(2)(iii)(C), or (D) above, if the Initiating Member selected the auto-match option of the Auction, the Initiating Member shall be allocated its full size of RFR responses at each price point up to the designated limit price or until a price point is reached where the balance of the Agency Order can be fully executed (the "final auto-match price point"). At the final auto-match price point, the Initiating Member shall be allocated the greater of one contract or a certain percentage of the remainder of the Agency Order, which percentage will be determined by the Exchange and may not be larger than 40%, subject the provisions of Interpretation and Policy .10 below. However, if only one Member's response (subject to the provisions of Interpretation and Policy .11 below) matches the Initiating Member's submission at the final auto-match price point, then the Initiating Member may be allocated up to 50% of the remainder of the Agency Order at the final auto-match price point, subject the provisions of Interpretation and Policy .10 below. Thereafter, contracts shall be allocated among remaining quotes, orders and auction responses (i.e., interest other than the Initiating Member) at the final auto-match price point in accordance with the matching algorithm in effect for the affected class as described in subparagraph (a)(2)(iii) above. If all Member responses are filled (i.e., no other interest remains), any remaining contracts will be allocated to the Initiating Member at the designated limit price described in subparagraph (a)(2)(i)(A) above.

(J) Notwithstanding (a)(2)(iii)(C), (D) above, if the Auction does not result in price improvement over the Exchange's disseminated price at the time the Auction began, resting unchanged quotes or orders that were disseminated at the best price before the Auction began shall have priority after any Priority Customer order priority and the Initiating Member's priority (40%) have been satisfied. Any unexecuted balance on the Agency Order shall be allocated to RFR responses provided that those RFR responses will be capped to the size of the original order and that the Initiating Member may not participate on any such balance unless the Agency Order would otherwise go unfilled.

(K) If the final Auction price locks a Priority Customer order on the Book on the same side of the market as the Agency Order, then, unless there is sufficient size in the Auction responses to execute both the Agency Order and the booked Priority Customer order (in which case they will both execute at the final Auction price), the Agency Order will execute against the RFR responses at $0.01 increment worse than the final Auction price (towards the opposite side of the Agency Order) against the Auction participants that submitted the final Auction price and any balance shall trade against the Priority Customer order in the Book at such order's limit price.

(L) If the Initiating Member elected to have last priority in allocation when submitting an Agency Order to initiate an Auction against a single-price submission, the Initiating Member will be allocated only the amount of contracts remaining, if any, after the Agency Order is allocated to all other responses at the single price specified by the Initiating Member.

(M) If an unexecuted balance remains on the Auction responses after the Agency Order has been executed and such balance could trade against any unrelated order(s) that caused the Auction to conclude, then the RFR balance will trade against the unrelated order(s) on a size pro rata basis as defined in Rule 514(c)(2).

(b) **PRIME Solicitation Mechanism**. A Member that represents agency orders may electronically execute orders it represents as agent ("Agency Order") against solicited orders provided it submits both the Agency Order and solicited orders for electronic execution into the PRIME Solicitation Mechanism ("Solicitation Auction") pursuant to this Rule.

(1) **Solicitation Auction Eligibility Requirements**. A Member (the "Initiating Member") may initiate a Solicitation Auction provided all of the following are met:

(i) The Agency Order is in a class designated as eligible for Solicitation Auctions as determined by the Exchange and within the designated Solicitation Auction order eligibility size parameters as such size parameters are determined by the Exchange (however, the eligible order size may not be less than 500 standard option contracts or 5,000 mini-option contracts);

(ii) Each order entered into the Solicitation Auction shall be designated as all-or-none;

(iii) The minimum price increment for an Initiating Member's single price submission shall be $0.01 increment; and

(iv) Post-Only OQs may not participate in the Solicitation Auction as an Agency Order or solicited interest. Post-Only OQs received during a Solicitation Auction will be rejected.

(2) **Solicitation Auction Process**. The Solicitation Auction shall proceed as follows:

(i) **Solicitation Auction Period and Requests for Responses (RFRs)**.

(A) To initiate the Solicitation Auction, the Initiating Member must mark the Agency Order for Solicitation Auction processing, and specify a single price at which it seeks to cross the Agency Order with a solicited order which shall be the "initiating price" for the Solicitation Auction.

(B) When the Exchange receives a properly designated Agency Order for Solicitation Auction processing, a RFR message indicating the option, side, size, and initiating price will be sent to all subscribers of the Exchange's data feeds.

(C) Members may submit responses to the RFR (specifying prices and sizes) during the response period. RFR responses shall be an Auction-or-Cancel ("AOC") Order or an AOC eQuote. The RFR will last for a period of time, as determined by the Exchange and announced through a Regulatory Circular. The RFR will be no less than 100 milliseconds and no more than 1 second.

(D) RFR responses shall not be visible to other Solicitation Auction participants, and shall not be disseminated to OPRA.

(E) The minimum price increment for responses shall be the same as provided in subparagraph (b)(1)(iii) above.

(F) A response with a size greater than the size of the Agency Order will be capped at the size of the Agency Order.

(G) RFR responses may be cancelled.

(ii) **Solicitation Auction Conclusion**. The Solicitation Auction shall conclude at the sooner of:

(A) The end of the RFR period;

(B) Upon receipt by the System of an unrelated order (in the same option as the Agency Order) on the opposite side of the market from the RFR responses, that is marketable against either the NBBO, the initiating price, or the RFR responses;

(C) Upon receipt by the System of an unrelated order (in the same option as the Agency Order) on the same side of the market as the RFR responses, that is marketable against the NBBO.

(D) Upon receipt by the System of an unrelated limit order (in the same option as the Agency Order on the opposite side of the market as the Agency Order that improves any RFR response;

(E) Any time an RFR response matches the NBBO on the opposite side of the market from the RFR responses;

(F) Any time there is a quote lock on the Exchange pursuant to Rule 1402; or

(G) Any time there is a trading halt in the option on the Exchange.

(iii) **Order Allocation**. At the conclusion of the Solicitation Auction, the Agency Order will be automatically executed in full and allocated subject to the following provisions, or cancelled. The Agency Order will be executed against the solicited order at the proposed execution price, provided that:

(A) The execution price must be equal to or better than the NBBO. If the execution would take place outside the NBBO, the Agency Order and solicited order will be cancelled;

(B) There are no Priority Customer orders resting in the Book on the opposite side of the Agency Order at the proposed execution price.

1) If there are Priority Customer orders and there is sufficient size (considering all resting orders, quotes and responses) to execute the Agency Order, the Agency Order will be executed against these interests and the solicited order will be cancelled. The Agency Order will be allocated at the best price(s) pursuant to the matching algorithm in effect for the class.

2) If there are Priority Customer orders and there is not sufficient size (considering all resting orders, quotes and responses), both the Agency Order and the solicited order will be cancelled; and

(C) There is insufficient size to execute the Agency Order at an improved price(s).

1) If there is sufficient size (considering all resting orders, quotes and responses) to execute the Agency Order at an improved price(s) that is equal or better than the NBBO, the Agency Order will

execute at the improved price(s) and the solicited order will be cancelled. The Agency Order will be allocated at the best price(s) pursuant to the matching algorithm in effect for the class.

Interpretations and Policies:

.01 It shall be considered conduct inconsistent with just and equitable principles of trade, in accordance with Rule 301, for any Member to enter orders, quotes, Agency Orders, or other responses for the purpose of disrupting or manipulating the Auction. Such conduct includes, but is not limited to, engaging in a pattern or practice of submitting unrelated orders that cause an Auction to conclude before the end of the RFR period and engaging in a pattern of conduct where the Member submitting the Agency Order into the PRIME breaks up the Agency Order into separate orders for two (2) or fewer contracts for the purpose of gaining a higher allocation percentage than the Member would have otherwise received in accordance with the allocation procedures contained in paragraph (a)(2)(iii) or (b)(2)(iii) above.

.02 The Auction and the Solicitation Auction may only be used to execute bona fide crossing transactions. Using the Auction and the Solicitation Auction for any other means, including but not limited to, market or price manipulation, shall be considered conduct inconsistent with just and equitable principles of trade in accordance with Rule 301.

.03 For executions pursuant to paragraph (b) above, prior to entering Agency Orders into the PRIME on behalf of customers, Initiating Members must deliver to the customer a written notification informing the customer that his order may be executed using the PRIME. The written notification must disclose the terms and conditions contained in this Rule 515A and be in a form approved by the Exchange.

.04 Members may enter contra orders that are solicited. The PRIME provides a facility for Members that locate liquidity for their customer orders. Members may not use the Solicitation Auction to circumvent Rule 520 limiting principal transactions. This may include, but is not limited to, Members entering contra orders that are solicited from (a) affiliated broker-dealers, or (b) broker-dealers with which the Member has an arrangement that allows the Member to realize similar economic benefits from the solicited transaction as it would achieve by executing the customer order in whole or in part as principal. Additionally, solicited contra orders entered by Members to trade against Agency Orders may not be for the account of a MIAX Emerald Market Maker assigned to the options class.

.05 Any determinations made by the Exchange pursuant to this Rule such as eligible classes and order size parameters shall be communicated in a Regulatory Circular.

.06 If trading interest exists on the MIAX Emerald Book that is subject to the Managed Interest Process pursuant to Rule 515(c) for the option on the opposite of side of the market as the Agency Order and when the EBBO is equal to the NBBO, the Agency Order will be automatically executed against the managed interest if the execution would be at a price equal to or better than the initiating price of the Agency Order. If the Agency Order is not fully executed after the managed interest is fully exhausted and is no longer at a price equal to the initiating price of the Agency Order, the Auction will be initiated for the balance of the order as provided in this rule. With respect to any portion of an Agency Order that is automatically executed against managed interest pursuant to this paragraph .06, the exposure requirements contained in Rule 520(b) and (c) will not be satisfied just because the member utilized the PRIME.

.07 If trading interest exists on the MIAX Emerald Book that is subject to the Managed Interest Process pursuant to Rule 515(c) or there is a Post-Only OQ on the MIAX Emerald Book for the option on the same side of the market as the Agency Order, the Agency Order will be rejected by the System prior to initiating an Auction or a Solicitation Auction.

.08 **[Reserved]**

.09 If the market is locked or crossed as defined in Rule 1402 for the option, the Agency Order will be rejected by the System prior to initiating an Auction or a Solicitation Auction.

.10 When determining the 40% or 50% Initiating Member allocation under subparagraph (a)(2)(iii)(H) or (I) above, the System will round the number of contracts to which the Initiating Member is entitled to the nearest whole number (up or down). If the allocation results in a remainder of exactly one-half contract (.50000), then the System will round the number of contracts to which the Initiating Member is entitled up to the next higher whole number.

.11 When calculating the number of Member's responses that match the Initiating Member's single price submission under subparagraph (a)(2)(iii)(H) and the final auto-match price point under subparagraph (a)(2)(iii)(I) of this Rule, the System will not include in such calculation: (i) any Priority Customer Auction Response and/or unrelated Priority Customer interest that has been executed, or (ii) any Member's response (including unrelated orders and quotes) executed at a better price.

.12 **PRIME for Complex Orders**. Unless otherwise provided in this Interpretation and Policy .12 or unless the context otherwise requires, the provisions of Rule 515A(a) above shall be applicable to the trading of complex orders (as defined in Rule 518) in the PRIME. The Exchange will determine, on a class-by-class basis, the option classes in which complex orders are available for trading in the PRIME on the Exchange, and will announce such classes to Members via Regulatory Circular.

(a) Members may use PRIME to execute complex orders at a net price. "cPRIME" is the process by which a Member may electronically submit a "cPRIME Order" (as defined in Rule 518(b)(7)) it represents as agent (a "cPRIME Agency Order") against principal or solicited interest for execution (a "cPRIME Auction"), subject to the following:

(i) The initiating price for a cPRIME Agency Order must be better than (inside) the icEBBO for the strategy and any other complex orders on the Strategy Book. The System will reject cPRIME Agency Orders submitted with an initiating price that is equal to or worse than (outside) the icEBBO or any other complex orders on the Strategy Book.

(ii) Members may enter RFR responses on the opposite side of the market from the cPRIME Agency Order at net prices, and bids and offers for complex orders may participate in the execution of an order as provided in this Rule 515A.

(iii) Except as provided in subparagraph (c) below, with respect to bids and offers for the individual legs of a complex strategy that trade against the cPRIME Agency Order, the order allocation rules contained in Rule 514 will apply.

(iv) If an improved net price for the complex order being executed can be achieved from bids and offers for the individual legs of the complex order in the simple market, and the complex order is otherwise eligible for Legging pursuant to Rule 518(c)(2)(iii), the Strategy being matched will receive an execution at the better net price.

(v) All references to the NBBO in Rule 515A are inapplicable.

(b) The System will reject a cPRIME Agency Order if, at the time of receipt of the cPRIME Agency Order:

(i) the strategy is subject to a cPRIME Auction pursuant to Rule 515A, Interpretation and Policy .12 or to a Complex Auction pursuant to Rule 518(d);

(ii) any component of the strategy is subject to a SMAT Event as described in Rule 518(a)(16); or

(iii) any component of the strategy is subject to the Managed Interest Process described in Rule 515(c)(1)(ii).

(c) Notwithstanding the provisions of this Rule 515A with respect to PRIME, the following shall apply to cPRIME Orders only:

(i) The RFR period for cPRIME Auctions shall be independent from the RFR period for PRIME Auctions and shall last for a period of time set forth in Rule 515A(a)(2)(i)(C).

(ii) Participants that submit simple orders that are executed as individual legs of complex orders at the net execution price point will be allocated contracts only after all complex interest at such price point have received allocations.

(iii) The size and bid/ask differential provisions contained in Rule 515A(a)(1)(iii) shall not apply to cPRIME Orders.

(iv) The conclusion of auction provisions contained in Rule 515A(a)(2)(ii) shall not apply to cPRIME Auctions.

(v) The order allocation provisions contained in Rule 515A(a)(2)(iii) shall apply to cPRIME Auctions, provided that:

(A) all references to contracts shall be deemed to be references to complex strategies as defined in Rule 518(a)(6); and

(B) the last priority allocation option described in Rule 515A(a)(2)(iii)(L) is not available for Initiating Members that submit cPRIME Agency Orders.

(vi) The provisions contained in Interpretations and Policies .06 and .07 of this Rule shall not apply to cPRIME Auctions.

(d) A cPRIME Auction shall conclude at the sooner of (i) through (vii) below with the cPRIME Agency Order executing pursuant to Rule 515A(2)(iii) below:

(i) the end of the RFR period;

(ii) a cAOC eQuote (as defined in Rule 518, Interpretation and Policy .02(c)(1)) or cAOC Order (as defined in Rule 518(b)(3)) on the opposite side of the market from the cPRIME Agency Order locks or crosses (A) the icEBBO, or (B) the best net price of a complex order in the same strategy on the Strategy Book, whichever is more aggressive;

(iii) unrelated interest on the same side of the market as the cPRIME Agency Order locks or crosses the best price on the opposite side of the market;

(iv) unrelated interest on the opposite side of the market from the cPRIME Agency Order:

(A) locks or crosses (1) the icEBBO, or (2) the best net price of a complex order in the same strategy on the Strategy Book, whichever is more aggressive; or

(B) improves the price of any RFR response.

(v) a simple order or quote in a component of the strategy on either side of the market as the cPRIME Agency Order locks or crosses the NBBO for such component;

(vi) a simple order or quote in a component of the strategy, eligible to rest on the Simple Order Book, is received on the same side of the market as the cPRIME Agency Order and causes the icEBBO to lock or cross the best price opposite the cPRIME Agency Order;

(vii) a simple order or quote in a component of the strategy, eligible to rest on the Simple Order Book, is received on the opposite side of the market from the cPRIME Agency Order and causes the icEBBO to lock or cross the initiating price.

[Adopted: December 20, 2018; amended April 5, 2019 (SR-EMERALD-2019-12)]

Rule 516. Order Types Defined

It should be noted that some of the order types defined below are valid only during certain portions of the trading day (e.g., Opening Orders) or during certain events (e.g., Auction-or-Cancel Orders). If a Member submits an order type during a time period when the order type is not valid, the System will reject the order.

(a) **Market Order.** A market order is an order to buy or sell a stated number of option contracts at the best price available at the time of execution.

(b) **Limit Orders**. A limit order is an order to buy or sell a stated number of option contracts at a specified price or better.

(1) **Marketable Limit Orders.** A marketable limit order is a limit order to buy (sell) at or above (below) the best offer (bid) on the Exchange.

(2) **Fill-or-Kill Orders.** A Fill-or-Kill Order is a limit order that is to be executed in its entirety at a single price as soon as it is received and, if not so executed is cancelled. A Fill-or-Kill Order is not valid during the Opening Process described in Rule 503.

(3) **Auction-or-Cancel Orders.** An Auction-or-Cancel or "AOC" Order is a limit order used to provide liquidity during a specific Exchange process (such as the Opening Imbalance process described in Rule 503) with a time in force that corresponds with that event. AOC Orders are not displayed to any market participant, are not included in the EBBO and therefore are not eligible for trading outside of the event, may not be routed, and may not trade at a price inferior to the away markets.

(c) **Immediate-or-Cancel Orders.** An Immediate-or-Cancel Order is an order that is to be executed in whole or in part upon receipt. Any portion not so executed is cancelled. An Immediate-or-Cancel Order is not valid during the Opening Process described in Rule 503.

(d) **[Reserved]**

(e) **Attributable Order**. An Attributable Order is a market or limit order which displays the user firm ID for purposes of trading on the Exchange. Use of Attributable Orders is voluntary. Attributable Orders entered into the Exchange System will be available for execution but may not display the user firm ID for all Exchange processes. The Exchange will issue a Regulatory Circular specifying the Exchange processes and the class(es) of securities for which the Attributable Order type shall be available.

(f) **Intermarket Sweep Order.** An Intermarket Sweep Order or "ISO", as defined in Rule 1400(h), is a limit order that is designated by a Member as an ISO in the manner prescribed by the Exchange, and is executed within the System by Members without respect to Protected Quotations of other Eligible Exchanges as defined in Rule 1400(p) and (f). ISOs are immediately executable within the System and shall not be eligible for routing. ISOs that are not designated as immediate or cancel will be cancelled by the System if not executed upon receipt. Simultaneously with the routing of an ISO to the System, one or more additional limit orders, as necessary, are routed by the entering Member to execute against the full displayed size of any Protected Bid or Protected Offer (as defined in Rule 1400(o)) in the case of a limit order to sell or buy with a price that is superior to the limit price of the limit order identified as an ISO. These additional routed orders must be identified as ISOs. An ISO is not valid during the Opening Process described in Rule 503.

(g) **Do Not Route Order.** A Do Not Route or "DNR" Order is an order that will never be routed outside of the Exchange regardless of the prices displayed by away markets. A DNR order may execute on the Exchange at a price equal to or better than, but not inferior to, the best away market price but, if that best away market remains, the DNR order will be handled in accordance with the Managed Interest Process described in Rule 515(c)(1)(ii).

(h) **Opening Order**. An Opening or "OPG" Order is an order that is valid only for the Opening Process.

(i) **Customer Cross Order.** A Customer Cross Order is comprised of a Priority Customer Order to buy and a Priority Customer Order to sell at the same price and for the same quantity. A Customer Cross Order is not valid during the Opening Process described in Rule 503.

(j) **Qualified Contingent Cross Order**. A Qualified Contingent Cross Order is comprised of an originating order to buy or sell at least 1,000 contracts, or 10,000 mini-option contracts, that is identified as being part of a qualified contingent trade, as that term is defined in Interpretation and Policy .01 below, coupled with a contra-side order or orders totaling an equal number of contracts. A Qualified Contingent Cross Order is not valid during the Opening Process described in Rule 503.

(k) **Day Limit Order.** A Day Limit Order is an order to buy or sell which, if not executed, expires at the end of trading in the security on the day on which it was entered.

(l) **Good 'Til Cancelled Order.** A Good 'til Cancelled or "GTC" Order is an order to buy or sell which remains in effect until it is either executed, cancelled or the underlying option expires.

(m) **"Post-Only Orders"** are orders that will not remove liquidity from the Book. Post-Only Orders are to be ranked and executed on the Exchange pursuant to Rule 514(b) (Priority on the Exchange), or handled pursuant to Rule 515, as appropriate, and will never route away to another trading center. Post-Only Orders are evaluated with respect to locking or crossing other orders or quotes as set forth in Rule 515(a). A Post-Only Order is valid during the Opening Process and will be processed in accordance with Rule 503. The Post-Only instruction will be ignored (i) for Post-Only Orders that participate in the Opening Process, and (ii) for Post-Only Orders subject to the ABBO transition from a crossed state to an uncrossed state pursuant to Rule 515, Interpretation and Policy .02. A Post-Only Order may not be a Market Order, Auction-or-Cancel Order, Immediate-or-Cancel Order, an Intermarket Sweep Order or a Good 'til Cancelled Order. Post-Only Orders received before the Opening Process or during a trading halt may participate in the next Opening Process. Post-Only Orders received after the market close will be rejected. Post-Only Orders may not participate in a PRIME Auction as set forth in Rule 515A(a) and if received during a PRIME Auction will be rejected. Post-Only Orders may not participate in a Solicitation Auction as set forth in Rule 515A(b) and if received during a Solicitation Auction will be rejected. Post-Only Orders may not be a component of a complex order set forth in Rule 518(a)(5).

Interpretations and Policies:

.01 A "qualified contingent trade" is a transaction consisting of two or more component orders, executed as agent or principal, where:

(a) At least one component is an NMS Stock, as defined in Rule 600 of Regulation NMS under the Exchange Act;

(b) all components are effected with a product or price contingency that either has been agreed to by all the respective counterparties or arranged for by a broker-dealer as principal or agent;

(c) the execution of one component is contingent upon the execution of all other components at or near the same time;

(d) the specific relationship between the component orders (e.g., the spread between the prices of the component orders) is determined by the time the contingent order is placed;

(e) the component orders bear a derivative relationship to one another, represent different classes of shares of the same issuer, or involve the securities of participants in mergers or with intentions to merge that have been announced or cancelled; and

(f) the transaction is fully hedged (without regard to any prior existing position) as a result of other components of the contingent trade.

.02 Complex order types are defined in Rule 518. Derived orders are defined in Rule 518(a)(9).

[Adopted: December 20, 2018]

Rule 517. Quote Types Defined

Market Makers may communicate to the Exchange bids and offers using one or more of the following quote types. All of the bids and offers in the quote types described below shall be firm in accordance with the Market Maker's obligations under Exchange Rules and Rule 602 of Regulation NMS. However, bids and offers in certain of the eQuote types, as identified in paragraph (d) below, will not be disseminated by the Exchange to quotation vendors in accordance with Rule 602 of Regulation NMS given their limited time in force contingencies. Some of the quote types defined below are valid only during certain portions of the trading day (e.g., Opening Only eQuotes) or during certain events (e.g., Auction-or-Cancel eQuotes). If a Member submits a quote type during a time period when the quote type is not valid, the System will reject the quote.

(a) **Quote Types**:

(1) **Standard Quote.** A Standard quote is a quote submitted by a Market Maker that cancels and replaces the Market Maker's previous Standard quote, if any.

(i) **Post-Only Quotes.** Post-Only Quotes are Standard quotes that will not remove liquidity from the Book. Post-Only Quotes are to be ranked and executed on the Exchange pursuant to Rule 514(b) (Priority on the Exchange), or handled pursuant to Rule 515, as appropriate, and will never route away to another trading center. Post-Only Quotes are evaluated with respect to locking or crossing other orders or quotes as set forth in Rule 515(a). A Post-Only Quote is valid during the Opening Process and will be processed in accordance with Rule 503. The Post-Only instruction will be ignored for (i) Post-Only Quotes that participate in the Opening Process, and (ii) Post-Only Quotes subject to the ABBO transition from a crossed state to an uncrossed state pursuant to Rule 515, Interpretation and Policy .02. Post-Only Quotes received before the Opening Process or during a trading halt may participate in the next Opening Process. Post-Only Quotes received after the market close will be rejected. Post-Only Quotes may not participate in a PRIME Auction as set forth in Rule 515A(a) and if received during a PRIME Auction will be rejected. Post-Only Quotes may not participate in a Solicitation Auction as set forth in Rule 515A(b) and if received during a Solicitation Auction will be rejected. A Post-Only Quote may not be a component of a complex order set forth in Rule 518(a)(5) and will be rejected by the System.

(2) **eQuote.** An eQuote is a quote with a specific time in force that does not automatically cancel and replace a previous Standard quote or eQuote. An eQuote can be cancelled by the Market Maker at any time, or can be replaced by another eQuote that contains specific instructions to cancel an existing eQuote.

(i) **Auction-or-Cancel eQuote.** An Auction-or-Cancel or "AOC" eQuote is a quote submitted by a Market Maker to provide liquidity in a specific Exchange process (such as the Opening Imbalance Process described in Rule 503) with a time in force that corresponds with the duration of that event and will automatically expire at the end of that event. AOC eQuotes are not displayed to any market participant, are not included in the EBBO and therefore are not eligible for trading outside of the event. An AOC eQuote does not automatically cancel or replace the Market Maker's previous Standard quote or eQuote.

(ii) **Opening Only eQuote.** An Opening Only or "OPG" eQuote is a quote that can be submitted by a Market Maker only during the Opening as set forth in Rule 503. An OPG eQuote does not automatically cancel or

replace the Market Maker's previous Standard quote or eQuote. OPG eQuotes will automatically expire at the end of the Opening Process.

(iii) **Immediate-or-Cancel eQuote.** An Immediate-or-Cancel or "IOC" eQuote is an eQuote submitted by a Market Maker that must be matched with another quote or order for an execution in whole or in part upon receipt into the System. Any portion of the IOC eQuote not executed will be immediately canceled. An IOC eQuote does not automatically cancel or replace the Market Maker's previous Standard quote or eQuote. An IOC eQuote is not valid during the Opening Process described in Rule 503.

(iv) **Fill-or-Kill eQuote.** A Fill-or-Kill or "FOK" eQuote is an eQuote submitted by a Market Maker that must be matched with another quote or order for an execution in its entirety at a single price upon receipt into the System or will be immediately cancelled. An FOK eQuote does not automatically cancel or replace the Market Maker's previous Standard quote or eQuote. An FOK eQuote is not valid during the Opening Process described in Rule 503.

(v) **Intermarket Sweep eQuote.** A Market Maker may submit an Intermarket Sweep eQuote to the Exchange only if it has simultaneously routed one or more Intermarket Sweep Orders to execute against the full displayed size of any Protected Bid (as defined in Rule 1400(o)), in the case of an intermarket sweep offer to sell, or Protected Offer (as defined in Rule 1400(o)), in the case of an intermarket sweep bid to buy, an option with a price that is superior to the Intermarket Sweep eQuote. Intermarket Sweep eQuotes that are not designated as immediate or cancel will be cancelled by the System if not executed upon receipt. Intermarket Sweep eQuotes do not automatically cancel or replace the Market Maker's previous Standard Quote or eQuote. An Intermarket Sweep eQuote is not valid during the Opening Process described in Rule 503.

(b) **Quote Priority**

(1) For trade allocation purposes, quotes will be considered either priority quotes (i.e., trade allocation will be in accordance with Rule 514(e), which provides priority quotes with precedence over all Professional Interest) or non-priority quotes (i.e., trade allocation will be in accordance with Rule 514(e), which also provides non-priority quotes are considered together with all other Professional Interest) based upon a Market Maker's quote width at certain times as described below.

(i) **Priority Quotes.** To be considered a priority quote, at the time of execution, each of the following standards must be met:

(A) the bid/ask differential of a Market Maker's two-sided quote pair must be valid width (no wider than the bid/ask differentials outlined in Rule 603(b)(4));

(B) the initial size of both of the Market Maker's bid and the offer must be in compliance with the requirements of Rule 604(b)(2);

(C) the bid/ask differential of a Market Maker's two-sided quote pair must meet the priority quote width requirements defined below in subparagraph (ii) for each option; and

(D) either of the following are true:

1. At the time a locking or crossing quote or order enters the System, the Market Maker's two-sided quote pair must be valid width for that option and must have been resting on the Book; or

2. Immediately prior to the time the Market Maker enters a new quote that locks or crosses the EBBO, the Market Maker must have had a valid width quote already existing (i.e., exclusive of the Market Maker's new marketable quote or update) among his two-sided quotes for that option.

(ii) **Priority Quote Width Standard.** The priority quote width standard will be established by the Exchange and filed with the Commission in accordance with Section 19 of the Exchange Act and Rule 19b-4 thereunder. The priority quote width standard established by the Exchange can have bid/ask differentials as narrow as one MPV, as wide but never wider than the bid/ask differentials outlined in Rule 603(b)(4), or somewhere in between. Notwithstanding the foregoing, until such time as the Exchange has submitted and received approval of a rule change establishing narrower bid/ask differentials, the priority quote width standard will be the bid/ask differentials outlined in Rule 603(b)(4).

(iii) **Non-Priority Quotes.** Any time a Market Maker's quotes fail to meet the valid width criteria as outlined in Rule 517(b)(1)(i) and (ii) above, quotations for that Market Maker shall be considered non-priority and trading interest resulting from that quotation shall be allocated with other Professional Interest.

(2) For purposes of determining a valid width market, only a Market Maker's highest quote bid and lowest quote offer from its Standard quotes will be considered.

(c) The bids and offers of Standard quotes shall be disseminated by the Exchange if, in accordance with Rule 602 of Regulation NMS, they represent the EBBO.

(d) Bids and offers in the following limited time in force eQuote types will not be disseminated by the Exchange in accordance with Rule 602 of Regulation NMS. In addition, executions resulting from the following eQuote types will not be used by the Exchange's Aggregate Risk Manager to determine whether the Market Maker has exceeded the Allowable Exchange Percentage as more fully described in Rule 612:

(1) Auction-or-Cancel eQuote;

(2) Opening Only eQuote;

(3) Immediate-or-Cancel eQuote;

(4) Fill-or-Kill eQuote; and

(5) Immediate-or-Cancel Intermarket Sweep eQuote.

Interpretations and Policies:

.01 To be considered a priority quote, a quote for a long-term option contract (as defined in Rule 406) must meet the priority quote requirements of Rule 517(b).

[Adopted: December 20, 2018]

Rule 518. Complex Orders

(a) **Definitions.**

(1) **ABBO.** The term ABBO means the best bid(s) or offer(s) disseminated by other Eligible Exchanges (defined in Rule 1400(f)) and calculated by the Exchange based on market information received by the Exchange from OPRA.

(2) **Complex National Best Bid or Offer ("cNBBO").** The cNBBO is calculated using the NBBO for each component of a complex strategy to establish the best net bid and offer for a complex strategy.

(3) **Complex Auction.** A "Complex Auction" is an auction of a complex order as set forth in subparagraph 518(d) below.

(4) **Complex Auction-Eligible Order**. A "Complex Auction-eligible order" is an order that meets the requirements of subparagraph 518(d)(1) below.

(5) **Complex Order**. A "complex order" is any order involving the concurrent purchase and/or sale of two or more different options in the same underlying security (the "legs" or "components" of the complex order), for the same account, in a ratio that is equal to or greater than one-to-three (.333) and less than or equal to three-to-one (3.00) and for the purposes of executing a particular investment strategy. Mini-options may only be part of a complex order that includes other mini-options. Only those complex orders in the classes designated by the Exchange and communicated to Members via Regulatory Circular with no more than the applicable number of legs, as determined by the Exchange on a class-by-class basis and communicated to Members via Regulatory Circular, are eligible for processing. A Post-Only order may not be a component of a complex order and will be rejected by the System.

A complex order can also be a "stock-option order" as described further, and subject to the limitations set forth, in Interpretation and Policy .01 of this Rule. A stock-option order is an order to buy or sell a stated number of units of an underlying security (stock or Exchange Traded Fund Share ("ETF")) or a security convertible into the underlying stock ("convertible security") coupled with the purchase or sale of options contract(s) on the opposite side of the market representing either (i) the same number of units of the underlying security or convertible security, or (ii) the number of units of the underlying stock necessary to create a delta neutral position, but in no case in a ratio greater than eight-to-one (8.00), where the ratio represents the total number of units of the underlying security or convertible security in the option leg to the total number of units of the underlying security or convertible security in the stock leg. Only those stock-option orders in the classes designated by the Exchange and communicated to Members via Regulatory Circular with no more than the applicable number of legs as determined by the Exchange on a class-by-class basis and communicated to Members via Regulatory Circular, are eligible for processing.

(6) **Complex Strategy.** The term "complex strategy" means a particular combination of components and their ratios to one another. New complex strategies can be created as the result of the receipt of a complex order or by the Exchange for a complex strategy that is not currently in the System. The Exchange may limit the number of new complex strategies that may be in the System at a particular time and will communicate this limitation to Members via Regulatory Circular.

(7) **Complex Quotes**. A "complex quote" is a Market Maker complex Standard quote or complex eQuote for a complex strategy as set forth in Interpretation and Policy .02 of this Rule. A Post-Only Quote may not be a component of a complex order and will be rejected by the Systems.

(8) **Displayed Complex MIAX Emerald Best Bid or Offer ("dcEBBO")**. The dcEBBO is calculated using the best displayed price for each component of a complex strategy from the Simple Order Book. For stock-option orders, the dcEBBO for a complex strategy will be calculated using the Exchange's best displayed bid or offer in the individual option component(s) and the NBBO in the stock component.

(9) **Derived Order**. A "derived order" is an Exchange-generated limit order on the Simple Order Book that represents either the bid or offer of one component of a complex order resting on the Strategy Book that is comprised of orders to buy or sell two option components where one component has a base ratio of "one" relative to the other component (1:1, 1:2, or 1:3). Derived orders will not be routed outside of the Exchange regardless of the price(s) disseminated by away markets. The Exchange will determine on a class-by-class basis to make available derived orders and communicate such determination to Members via a Regulatory Circular. Derived orders are firm orders (i.e., if executed, firm for the disseminated price and size) that are included in the EBBO (as defined in subparagraph (a)(10) below). Derived orders are subject to the Managed Interest Process described in Rule 515(c)(1)(ii).

(i) A derived order may be automatically generated if the complex order is eligible for Legging pursuant to Rule 518(c)(2)(iii) for one or more legs of a complex order at a price:

(A) that matches or improves upon the best displayed bid or offer in the affected series on the Simple Order Book; and

(B) at which the net price of the complex order at the best price on the Strategy Book can be achieved when the other component of the complex order is executed against the best displayed bid or offer on the Simple Order Book.

(ii) A derived order will not be displayed at a price that locks or crosses the best bid or offer of another exchange. In such a circumstance, the System will display the derived order on the Simple Order Book at a price that is one MPV away from the current opposite side best bid or offer of such other exchange, and rank the derived order on the Simple Order Book according to its actual price.

(iii) A derived order will not be created at a price increment less than the minimum established by Rule 510.

(iv) A derived order will be handled in the same manner as other orders on the Simple Order Book except as otherwise provided in this Rule 518. A derived order is executed only after all other executable orders (including orders subject to the Managed Interest Process as described in subparagraph (c)(4) below) and quotes at the same price are executed in full.

(v) When a derived order is executed, the other component of the complex order on the Strategy Book will be automatically executed against the best bid or offer on the Exchange.

(vi) A derived order is automatically removed from the Simple Order Book if:

(A) the displayed price of the derived order is no longer at the displayed best bid or offer on the Simple Order Book;

(B) execution of the derived order may no longer achieve the net price of the complex order on the Strategy Book when the other component of the complex order is executed against the best bid or offer on the Simple Order Book;

(C) the complex order is executed, cancelled, or modified in any way;

(D) a strategy that has, as a component, an option that is of the same type as a derived order, enters a cPRIME Auction (as described in Rule 515A, Interpretation and Policy .12) or a Complex Auction (pursuant to Rule 518(d));

(E) any component of the complex order resting on the Strategy Book that is used to generate the derived order is subject to a Simple Market Auction or Timer ("SMAT") Event, as described in subparagraph (a)(16) below, a wide market condition (as described in Interpretation and Policy .05(e) of this Rule), or a halt.

If a derived order is removed from the Simple Order Book, the System will continually evaluate any remaining complex order(s) on the Strategy Book to determine whether a new derived order should be generated, as described in Rule 518(c)(5).

(vii) A derived order that is locked (i.e., if the opposite side EBBO locks the derived order) will be executed if the execution price is at the NBBO.

(10) **EBBO.** The term "EBBO" means the best bid or offer on the Simple Order Book (as defined below) on the Exchange.

(11) **Free Trading.** The term "free trading" means trading that occurs during a trading session other than: (i) at the opening or re-opening for trading following a halt, or (ii) during the Complex Auction Process (as described in paragraph (d) of this Rule).

(12) **Implied Complex MIAX Emerald Best Bid or Offer ("icEBBO")**. The icEBBO is a calculation that uses the best price from the Simple Order Book for each component of a complex strategy including displayed and non-displayed trading interest. For stock-option orders, the icEBBO for a complex strategy will be calculated using the best price (whether displayed or non-displayed) on the Simple Order Book in the individual option component(s), and the NBBO in the stock component.

(13) **Market Maker Priority Interest for Complex**. Certain Market Maker complex Standard quotes and complex eQuotes (as defined in Interpretation and Policy .02 of this Rule) will qualify as "Market Maker Priority Interest for Complex" on the Strategy Book if the following criteria have been met. For purposes of this Rule, Market Maker Priority Interest for Complex is established at the beginning of a Complex Auction (as described in subparagraph (d) below), or at the time of execution in free trading. If complex Standard quoting is engaged for a complex strategy as set forth in Interpretation and Policy .02 of this Rule, a Market Maker complex Standard quote or a complex eQuote will qualify as Market Maker Priority Interest for Complex if the Market Maker has a complex Standard quote in the complex strategy that equals or improves the dcEBBO on the opposite side from the incoming complex order or quote at the time of evaluation (a "Complex priority quote").

(14) **NBBO.** The term "NBBO" means the national best bid or offer as calculated by the Exchange based on market information received by the Exchange from the appropriate Securities Information Processor ("SIP").

(15) **Simple Order Book**. The "Simple Order Book" is the Exchange's regular electronic book of orders and quotes.

(16) **Simple Market Auction or Timer ("SMAT") Event**. A SMAT Event is defined as a PRIME Auction (pursuant to Rule 515A). Complex orders and quotes will be handled during a SMAT Event as described in Interpretation and Policy .05(e)(2) of this Rule.

(17) **Strategy Book**. The "Strategy Book" is the Exchange's electronic book of complex orders and complex quotes.

(b) **Types of Complex Orders**.

(1) **General**. The complex order types that may be submitted for use on the Exchange are limit orders, market orders, Good 'til Cancelled ("GTC") Orders, or Day Limit Orders as each such term is defined in Rule 516, or Complex Auction-on-Arrival ("cAOA") Orders, Complex Auction-or-Cancel ("cAOC") Orders, Complex Immediate-or-Cancel ("cIOC") Orders, Complex Customer Cross ("cC2C") Orders, or Complex Qualified Contingent Cross ("cQCC") Orders as such terms are defined below.

(2) **Complex Auction-on-Arrival Order**.

(i) A "Complex Auction-on-Arrival" or "cAOA" Order is a complex order designated to be placed into a Complex Auction upon receipt or upon evaluation. Complex orders that are not designated as cAOA will, by default, not initiate a Complex Auction upon arrival, but except as described herein will be eligible to participate in a Complex Auction that is in progress when such complex order arrives or if placed on the Strategy Book may participate in or may initiate a Complex Auction, following evaluation conducted by the System (as described in subparagraph (d) below).

(ii) Complex orders that are designated as cIOC or cAOC are not eligible for cAOA designation, and their evaluation will not result in the initiation of a Complex Auction either upon arrival or if eligible when resting on the Strategy Book.

(3) **Complex Auction-or-Cancel Order**. A Complex Auction-or-Cancel or "cAOC" Order is a complex limit order used to provide liquidity during a specific Complex Auction with a time in force that corresponds with that event. cAOC Orders are not displayed to any market participant, and are not eligible for trading outside of the

event. A cAOC Order with a size greater than the aggregate auctioned size (as defined in Rule 518(d)(4) will be capped for allocation purposes at the aggregate auctioned size.

(4) **Complex Immediate-or-Cancel Order**. A Complex Immediate-or-Cancel or "cIOC" Order is a complex order that is to be executed in whole or in part upon receipt. Any portion not so executed is cancelled.

(5) **Complex Customer Cross Order**. A Complex Customer Cross or "cC2C" Order is comprised of one Priority Customer complex order to buy and one Priority Customer complex order to sell at the same price and for the same quantity. Trading of cC2C Orders is governed by Rule 515(h)(3).

(6) **Complex Qualified Contingent Cross Order**. A Complex Qualified Contingent Cross or "cQCC" Order is comprised of an originating complex order to buy or sell where each component is at least 1,000 contracts that is identified as being part of a qualified contingent trade, as defined in Rule 516, Interpretation and Policy .01, coupled with a contra-side complex order or orders totaling an equal number of contracts. Trading of cQCC Orders is governed by Rule 515(h)(4).

(7) **Complex PRIME Order**. A Complex PRIME or "cPRIME" Order is a complex order (as defined in Rule 518(a)(5)) that is submitted for participation in a cPRIME Auction. Trading of cPRIME Orders is governed by Rule 515A, Interpretation and Policy .12.

(c) **Trading of Complex Orders and Quotes**. The Exchange will determine and communicate to Members via Regulatory Circular which complex order origin types (i.e., non-broker-dealer customers, broker-dealers that are not Market Makers on an options exchange, and/or Market Makers on an options exchange) are eligible for entry onto the Strategy Book. Complex orders and quotes will be subject to all other Exchange Rules that pertain to orders and quotes generally, unless otherwise provided in this Rule 518. This Rule 518(c) governs trading of all complex order types set forth in Rule 518(b) above, unless otherwise specified in Rule 518(b).

(1) **Minimum Increments and Trade Prices**.

(i) Bids and offers on complex orders and quotes may be expressed in $0.01 increments, and the component(s) of a complex order may be executed in $0.01 increments, regardless of the minimum increments otherwise applicable to individual components of the complex order.

(ii) If any component of a complex strategy would be executed at a price that is equal to a Priority Customer bid or offer on the Simple Order Book, at least one other component of the complex strategy must trade at a price that is better than the corresponding EBBO.

(iii) A complex order will not be executed at a net price that would cause any component of the complex strategy to be executed: (A) at a price of zero; or (B) ahead of a Priority Customer order on the Simple Order Book without improving the EBBO of at least one component of the complex strategy.

(iv) A complex order or eQuote (as defined in Interpretation and Policy .02 of this Rule) will not be executed at a price that is outside of its MPC Price (as defined in Interpretation and Policy .05(f) of this Rule) or its limit price.

(2) **Execution of Complex Orders and Quotes**.

(i) **Opening and Reopening of the Strategy Book for Trading**. Complex orders and quotes do not participate in the Opening Process for the individual option legs conducted pursuant to Rule 503. At the beginning of each trading session, and upon reopening after a halt, once all components of a complex strategy are open, an initial evaluation will be conducted in order to determine whether a complex order is a Complex Auction-eligible order, using the process and criteria described in Interpretation and Policy .03(a) of this Rule regarding the Initial Improvement Percentage ("IIP"). The System will also evaluate the eligibility of complex orders and quotes (as applicable) to participate in the Managed Interest Process for complex orders as described in subparagraph (c)(4)

below; if they are eligible for full or partial execution against a complex order or quote resting on the Strategy Book or through Legging with the Simple Order Book (as described in subparagraph (c)(2)(iii) below; whether the complex order or quote should be cancelled; and whether all or any remaining portion of the complex order or quote should be placed on the Strategy Book.

The Strategy Book will open for trading, or reopen for trading after a halt, with a Complex Auction if it is determined that one of the following conditions is present: (A) a complex order with no matching interest on the Strategy Book equals or improves the IIP, (B) matching interest exists at a price that is equal to or through the IIP, or (C) a size imbalance exists where the price at which the maximum quantity that can trade is equal to or through the IIP. If the Strategy Book contains matched interest or a size imbalance exists where the price at which the maximum quantity can trade is not equal to or through the IIP, the Strategy Book will open for trading with a trade and a Complex Auction will not be initiated. The remaining portion of any complex order for which there is a size imbalance will be placed on the Strategy Book. If the Strategy Book contains no matching interest or interest equal to or through the IIP, the complex strategy will open without a trade and a Complex Auction will not be initiated.

(ii) **Prices for Complex Strategy Executions.** Incoming complex orders and quotes will be executed by the System in accordance with the provisions set forth herein, and will not be executed at prices inferior to the icEBBO or at a price that is equal to the icEBBO when there is a Priority Customer Order (as defined in Rule 100) at the best icEBBO price. Complex orders will never be executed at a price that is outside of the individual component prices on the Simple Order Book, and the net price of a complex order executed against another complex order on the Strategy Book will never be inferior to the price that would be available if the complex order legged into the Simple Order Book. Incoming complex orders that could not be executed because the executions would be priced (A) outside of the icEBBO, or (B) equal to or through the icEBBO due to a Priority Customer Order at the best icEBBO price, will be cancelled if such complex orders are not eligible to be placed on the Strategy Book. Complex orders and quotes will be executed without consideration of any prices for the complex strategy that might be available on other exchanges trading the same options contracts provided, however, that such complex order price may be subject to the Implied Exchange Away Best Bid or Offer ("ixABBO") Protection described in Interpretation and Policy .05(d) of this Rule, and are subject to the MPC price protection feature described in Interpretation and Policy .05(f) of this Rule.

(iii) **Legging.** Complex orders up to a maximum number of legs (determined by the Exchange on a class-by-class basis as either two or three legs and communicated to Members via Regulatory Circular) may be automatically executed against bids and offers on the Simple Order Book for the individual legs of the complex order ("Legging"), provided the complex order can be executed in full or in a permissible ratio by such bids and offers, and provided that the execution price of each component is not executed at a price that is outside of the NBBO. Legging is not available for cAOC orders, complex Standard quotes, complex eQuotes, or stock-option orders. Notwithstanding the foregoing, complex orders with two option legs where both legs are buying or both legs are selling and both legs are calls or both legs are puts may only trade against other complex orders on the Strategy Book and will not be permitted to leg into the Simple Order Book. Complex orders with three option legs where all legs are buying or all legs are selling may only trade against other complex orders on the Strategy Book, regardless of whether the option leg is a call or a put. The System will not generate derived orders for these complex orders.

(iv) **Derived Orders**. Derived orders may be automatically generated on behalf of complex orders so that they are represented at the best bid or offer on the Exchange for the individual legs, and shall be executed as provided in subparagraph (a)(9) above.

(v) **Evaluation.** The System will evaluate complex orders and quotes initially once all components of the complex strategy are open as described in subparagraph (c)(2)(i) above, upon receipt as described in subparagraph (c)(5)(i) below, and continually as described in subparagraph (c)(5)(ii) below. The evaluation process for complex orders and quotes is used to determine (A) their eligibility to initiate, or to participate in, a Complex Auction as described in subparagraph (d)(1) below; (B) their eligibility to participate in the Managed Interest Process as described in subparagraph (c)(4) below; (C) whether a derived order should be generated or cancelled; (D) if they are eligible for full or partial execution against a complex order or quote resting on the Strategy Book or through Legging with the Simple Order Book (as described in subparagraph (c)(2)(iii) above; (E) whether the complex order

or quote should be cancelled; and (F) whether the complex order or quote or any remaining portion thereof should be placed or remain on the Strategy Book.

(3) **Complex Order Priority.**

(i) Notwithstanding the provisions of Rule 514, a complex order may be executed at a net credit or debit price with one other Member without giving priority to bids or offers established in the marketplace that are no better than the bids or offers comprising such net credit or debit; provided, however, that if any of the bids or offers established in the marketplace consist of a Priority Customer Order, at least one leg of the complex order must trade at a price that is better than the corresponding bid or offer in the marketplace by at least a $0.01 increment. Under the circumstances described above, if a stock-option order has one option leg, such option leg has priority over bids and offers established in the marketplace by Professional Interest (as defined in Rule 100) and Market Makers with priority quotes (as defined in Rule 517(b)(1)) that are no better than the price of the options leg, but not over such bids and offers established by Priority Customer Orders. If a stock-option order has more than one option leg, such option legs may be executed in accordance with the first sentence of this subparagraph (c)(3)(i).

(ii) Complex orders will be automatically executed against bids and offers on the Strategy Book in price priority. Bids and offers at the same price on the Strategy Book will be executed pursuant to the following priority rules:

(A) Priority Customer complex orders resting on the Strategy Book will have first priority to trade against a complex order. Priority Customer complex orders resting on the Strategy Book will be allocated in price time priority.

(B) Market Maker Priority Interest for Complex will collectively have second priority. Market Maker Priority Interest for Complex will be allocated on a pro-rata basis as defined in Rule 514(c)(2).

(C) Market Maker non-Priority Interest for Complex will collectively have third priority. Market Maker non-Priority Interest for Complex will be allocated on a pro-rata basis as defined in Rule 514(c)(2).

(D) Non-Market Maker Professional Interest orders resting on the Strategy Book will collectively have fourth priority. Non-Market Maker Professional Interest orders will be allocated on a pro-rata basis as defined in Rule 514(c)(2).

(4) **Managed Interest Process for Complex Orders.** Complex orders will not be routed outside of the Exchange regardless of prices displayed by away markets. The Managed Interest Process for complex orders will be based upon the icEBBO (as defined in subparagraph (a)(12) above).

(i) A complex order that is resting on the Strategy Book and is either a complex market order (as described in subparagraph (c)(6) below), or has a limit price that locks or crosses the current opposite side icEBBO when the icEBBO is the best price, may be subject to the Managed Interest Process for complex orders as discussed herein. Complex Standard quotes are not eligible for inclusion in the Managed Interest Process. An unexecuted complex Standard quote with a limit price that would otherwise be managed to the icEBBO will be cancelled. If the order is not a Complex Auction-eligible order (as defined in subparagraph (d)(1) below), the System will first determine if the inbound complex order can be matched against other complex orders and/or quotes resting on the Strategy Book at a price that is at or inside the icEBBO (provided there are no Priority Customer orders on the Simple Order Book at that price). Second, the System will determine if the inbound complex order can be executed by Legging against individual orders and quotes resting on the Simple Order Book at the icEBBO. A complex order subject to the Managed Interest Process will never be executed at a price that is through the individual component prices on the Simple Order Book. The net price of a complex order subject to the Managed Interest Process that is executed against another complex order on the Strategy Book will never be inferior to the price that would be available if the complex order legged into the Simple Order Book. When the opposite side icEBBO includes a Priority Customer Order, the System will book and display such booked complex order on the Strategy Book at a price (the "book and display price") that is $0.01 away from the current opposite side icEBBO. When the opposite side icEBBO

does not include a Priority Customer Order and is not available for execution in the ratio of such complex order, or cannot be executed through Legging with the Simple Order Book (as described in subparagraph (c)(2)(iii) above), the System will place such complex order on the Strategy Book and display such booked complex order at a book and display price that will lock the current opposite side icEBBO.

(ii) Should the icEBBO change, the complex order's book and display price will continuously re-price to the new icEBBO until (A) the complex order has been executed in its entirety; (B) if not executed, the complex order has been placed on the Strategy Book at prices up to and including its limit price or, in the case of a complex market order or a limit order that is priced more aggressively than the new icEBBO (i.e., lower than the icEBBO bid for an order to sell or higher than the icEBBO offer for an order to buy), at the new icEBBO; (C) the complex order has been partially executed and remaining unexecuted contracts have been placed on the Strategy Book at prices up to and including their limit price or, in the case of a complex market order or a limit order that is priced more aggressively than the new icEBBO, at the new icEBBO; or (D) the complex order or any remaining portion of the complex order is cancelled. If the Exchange receives a new complex order or quote for the complex strategy on the opposite side of the market from the managed complex order that can be executed, the System will immediately execute the remaining contracts from the managed complex order to the extent possible at the complex order's current book and display price, provided that the execution price is not outside of the current icEBBO. If unexecuted contracts remain from the complex order on the Strategy Book, the complex order's size will be revised and disseminated to reflect the complex order's remaining contracts at its current managed book and display price.

(5) **Evaluation Process.** The Strategy Book is evaluated upon receipt of a new complex order or quote, and is evaluated continually thereafter by the System.

(i) **Evaluation Upon Receipt During Trading.** After a complex strategy is open for trading, all new complex orders and quotes that are received for the complex strategy are evaluated upon arrival. The System will determine if such complex orders are Complex Auction-eligible orders, using the process and criteria described in Interpretation and Policy .03(b) of this Rule regarding the Upon Receipt Improvement Percentage ("URIP"). The System will also evaluate (A) whether such complex orders or quotes are eligible for full or partial execution against a complex order or quote resting on the Strategy Book; (B) whether such complex orders or quotes are eligible for full or partial execution through Legging with the Simple Order Book (as described in Rule 518(c)(2)(iii)); (C) whether all or any remaining portion of a complex order or quote should be placed on the Strategy Book; (D) whether a derived order should be generated or cancelled; (E) the eligibility of such complex orders and quotes (as applicable) to participate in the Managed Interest Process as described in subparagraph (c)(4) above; (F) whether such complex orders should be cancelled; and (G) the MPC Price.

(ii) **Continual Evaluation.** The System will continue to evaluate complex orders and quotes on the Strategy Book. The System will continue to determine if such complex orders are Complex Auction-eligible orders, using the process and criteria described in Interpretation and Policy .03(c) of this Rule regarding the Reevaluation Improvement Percentage ("RIP"). The System will also continue to evaluate (A) whether such complex orders or quotes are eligible for full or partial execution against a complex order or quote resting on the Strategy Book; (B) whether such complex orders or quotes are eligible for full or partial execution through Legging with the Simple Order Book (as described in Rule 518(c)(2)(iii) and discussed above); (C) whether all or any remaining portion of a complex order or quote should be placed on the Strategy Book; (D) whether a derived order should be generated or cancelled; (E) the eligibility of such complex orders and quotes (as applicable) to participate in the Managed Interest Process as described in subparagraph (c)(4) above; and (F) whether such complex orders should be cancelled. The System will also continue to evaluate whether there is a SMAT Event, a wide market condition (as described in Interpretation and Policy .05(e)(1) of this Rule), a halt (as described in Interpretation and Policy .05(e)(3) of this Rule) affecting any component of a complex strategy. Complex orders and quotes will be handled during such events in the manner set forth in Interpretation and Policy .05(e) of this Rule.

(iii) **Complex Orders That Are Complex Auction-eligible**. If the System determines that a complex order is a Complex Auction-eligible order, such complex order will be submitted into the Complex Auction process as described in subparagraph 518(d) below.

(iv) **Complex Orders That Are Not Complex Auction-eligible.** If the System determines that a complex order is not a Complex Auction-eligible order, such complex order may be, as applicable, (A) immediately matched and executed against a complex order or quote resting on the Strategy Book; (B) executed against the individual components of the complex order on the Simple Order Book through Legging (as described in subparagraph (c)(2)(iii) above; (C) placed on the Strategy Book and managed pursuant to the Managed Interest Process as described in subparagraph (c)(4) above; or (D) cancelled by the System if the time-in-force of the complex order does not allow it to rest on the Strategy Book.

(6) **Complex Market Orders**. Complex orders may be submitted as market orders and may be designated as cAOA.

(i) **Complex Market Orders Designated as cAOA**. Complex market orders designated as cAOA may initiate a Complex Auction upon arrival or join a Complex Auction in progress.

(ii) **Complex Market Orders not Designated as cAOA**. Complex market orders not designated as cAOA will trade immediately with any contra-side complex orders or quotes, or against the individual legs, up to and including the dcEBBO, and may be subject to the Managed Interest Process described in subparagraph (c)(4) above, and the evaluation process described in subparagraph (c)(5) above.

(d) **Complex Auction Process**. Certain option classes, as determined by the Exchange and communicated to Members via Regulatory Circular, will be eligible to participate in a Complex Auction (an "eligible class"). Upon evaluation as set forth in subparagraph (c)(5) above, the Exchange may determine to automatically submit a Complex Auction-eligible order into a Complex Auction. Upon entry into the System or upon evaluation of a complex order resting at the top of the Strategy Book, Complex Auction-eligible orders may be subject to an automated request for responses ("RFR").

(1) **Complex Auction-eligible order.** A "Complex Auction-eligible order" means a complex order that, as determined by the Exchange, is eligible to initiate or join a Complex Auction based upon the order's marketability (i.e., if the price of such order is equal to or within a specific range of the current dcEBBO) as established by the Exchange, number of components, and complex order origin types (i.e., non-broker-dealer customers, broker-dealers that are not market makers on an options exchange, and/or market makers on an options exchange as established by the Exchange and communicated to Members via Regulatory Circular). In order to initiate a Complex Auction upon receipt, a Complex Auction-eligible order must be designated as cAOA and must meet the criteria described in Interpretation and Policy .03(b) of this Rule regarding the URIP. A complex order not designated as cAOA (i.e., a complex order considered by default to be "do not auction on arrival" by the System) may (i) join a Complex Auction in progress at the time of receipt; (ii) become a Complex Auction-eligible order after resting on the Strategy Book and may then automatically join a Complex Auction then in effect for the complex strategy; or (iii) initiate a Complex Auction if it meets the criteria described in Interpretation and Policy .03(a) of this Rule regarding the IIP or .03(c) of this Rule regarding the RIP. Complex orders processed through a Complex Auction may be executed without consideration to prices of the same complex interest that might be available on other exchanges.

(2) **Commencement of Complex Auction.** Upon receipt of a Complex Auction-eligible order or upon an evaluation by the System indicating that there is a Complex Auction-eligible order resting on the Strategy Book, as set forth in subparagraph (c)(5) above, the Exchange may begin the Complex Auction process by sending an RFR message. The RFR message will be sent to all subscribers to the Exchange's data feeds that deliver RFR messages. The RFR message will identify the complex strategy, the price, quantity of matched complex quotes and/or orders at that price, imbalance quantity, and side of the market of the Complex Auction-eligible order. The price included in the RFR Message will be the limit order price, unless: (i) that price is through the opposite side dcEBBO, or (ii) the Complex Auction is initiated by a complex market order, in which case such price will be the dcEBBO. The Exchange may determine to limit the frequency of Complex Auctions for a complex strategy (i.e., establish a minimum time period between Complex Auctions initiated for complex orders in that strategy resting on the Strategy Book). The duration of such limitation will be established on an Exchange-wide basis and communicated to Members via Regulatory Circular. The Exchange will not change the duration of the minimum time period on an intra-day basis

during any trading session. However, a new complex order received by the System during such limitation that ordinarily triggers a Complex Auction will still trigger a Complex Auction upon receipt.

(3) **Response Time Interval.** The "Response Time Interval" means the period of time during which responses to the RFR may be entered. The Exchange will determine the duration of the Response Time Interval, which shall not exceed 500 milliseconds, and will communicate it to Members via Regulatory Circular. The end of the trading session will also serve as the end of the Response Time Interval for a Complex Auction still in progress.

(4) **RFR Response.** Members may submit a response to the RFR message (an "RFR Response") during the Response Time Interval. RFR Responses may be submitted in $0.01 increments. RFR Responses must be a cAOC order or a cAOC eQuote as defined in Interpretation and Policy .02 of this Rule and may be submitted on either side of the market. RFR Responses represent non-firm interest that can be modified or withdrawn at any time prior to the end of the Response Time Interval. At the end of the Response Time Interval, RFR Responses are firm (i.e., guaranteed at the RFR price and size). All RFR Responses and other complex orders and quotes on the opposite side of the Complex Auction-eligible order are also firm with respect to other incoming Complex Auction-eligible orders that are received during the Response Time Interval. Any RFR Responses not executed in full will expire at the end of the Complex Auction. An RFR Response with a size greater than the aggregate size of interest at the same price on the same side of the market as the initiating Complex Auction-eligible order (the "aggregate auctioned size") will be capped for allocation purposes at the aggregate auctioned size.

(5) **Processing of Complex Auction-eligible orders.**

(i) At the end of the Response Time Interval, Complex Auction-eligible orders (and other complex orders and quotes) may be executed in whole or in part. Complex Auction-eligible orders will be executed against the best priced contra side interest as described in subparagraph (6) below.

(ii) Any unexecuted portion of a Complex Auction-eligible order remaining at the end of the Response Time Interval will either be:

(A) evaluated to determine if it may initiate another Complex Auction; or

(B) placed on the Strategy Book and ranked pursuant to subparagraph (c)(3) above.

(iii) Notwithstanding the foregoing in this subparagraph (d)(5), the Complex Auction will terminate (A) at the end of the Response Time Interval without trading when any individual component of a complex strategy in the Complex Auction process is subject to a wide market condition as described in Interpretation and Policy .05(e)(1) of this Rule, or to a SMAT Event as described in paragraph (a)(16) and Interpretation and Policy .05(e)(2) of this Rule, or (B) immediately without trading if any individual component or underlying security of a complex strategy in the Complex Auction process is subject to a halt as described in Interpretation and Policy .05(e)(3) of this Rule.

(iv) Upon the conclusion of the condition(s) or process(es) described in subparagraph (d)(5)(iii) above, an affected complex order will be evaluated and may initiate a new Complex Auction if such complex order is determined to be a Complex Auction-eligible order.

(6) **Complex Auction Pricing.** A complex strategy will not be executed at a net price that would cause any component of the complex strategy to be executed: (A) at a price of zero; or (B) ahead of a Priority Customer order on the Simple Order Book without improving the EBBO on at least one component of the complex strategy by at least $.01. At the conclusion of the Response Time Interval, Complex Auction-eligible orders will be priced and executed as follows, and allocated pursuant to subparagraph (7) below:

(i) Using $0.01 inside the current icEBBO as the boundary (the "boundary"), the System will calculate the price where the maximum quantity of contracts can trade and also determine whether there is an imbalance.

(A) If there is no imbalance, the System will calculate the Complex Auction price using the following:

1. If a single price satisfies the maximum quantity criteria, that single price is used as the Complex Auction price.

2. If two or more prices satisfy the maximum quantity criteria, the System will calculate the midpoint of the lowest and highest price points that satisfy the maximum quantity criteria, such midpoint price is used as the Complex Auction price. For orders with ixABBO Price Protection, as described in Interpretation and Policy .05(d) of this Rule (for purposes of this subparagraph (d)(6), "price protection"), the midpoint pricing will use the price protection range selected by the Member at the end of the Complex Auction.

a. If the midpoint price is not in a $0.01 increment, the System will round toward the midpoint of the dcEBBO to the nearest $0.01.

b. If the midpoint of the highest and lowest prices is also the midpoint of the dcEBBO and is not in a $0.01 increment, the System will round the price up to the next $0.01 increment.

(B) If there is a size imbalance, the System will calculate the Complex Auction price using the following:

1. If a single price satisfies the maximum quantity criteria, that single price is used as the Complex Auction price.

2. If two or more prices satisfy the maximum quantity criteria, the System will price the execution at the price on the opposite side of the size imbalance that meets the maximum quantity criteria, while also respecting limit prices and the pricing boundaries which include the price protection boundary of $0.01 inside of the icEBBO and the price protection range (if any) selected by the Members whose interest makes up the order imbalance.

3. If, after trading the maximum quantity at the execution price, Complex Auction interest remains with a managed price that locks or crosses the opposite side icEBBO, the System will do the following:

a. Execute the individual legs of eligible remaining Complex Auction eligible orders and quotes against orders and quotes resting on the Simple Order Book that were present prior to the beginning of the Complex Auction at the icEBBO if available in the proper ratio and at or within the NBBO of each component of the complex order.

b. After executing the imbalance side interest to the extent possible at the icEBBO, the System will do the following:

i. If Priority Customer interest at the icEBBO that is not in the proper ratio remains, the System will place such remaining imbalance side interest on the Strategy Book and manage such interest pursuant to subparagraph (c)(4) of this Rule.

ii. If no Priority Customer interest at the icEBBO remains, the System will execute Complex Auction interest with any available complex orders, complex Standard quotes or complex eQuotes priced at the icEBBO, and then with any orders or quotes on the Simple Order Book at the icEBBO that were received or modified after the beginning of the Response Time Interval.

4. If after trading the maximum quantity at the initial icEBBO, all interest at the initial icEBBO has been executed, including through Legging with the Simple Order Book (as described in

subparagraph (c)(2)(iii) above), and Complex Auction interest remains with a managed price that crosses the exhausted icEBBO or dcEBBO (if the next opposite side icEBBO is also the dcEBBO), or locks or crosses the next opposite side icEBBO or dcEBBO (if the next opposite side icEBBO is also the dcEBBO), the System will repeat the process for a size imbalance described in subparagraphs (d)(6)(i)(B)(1)-(3) above.

5. If the trading in subparagraph (d)(6)(i)(B)(4) above was not at the dcEBBO the System will follow the procedure described in that subparagraph at the dcEBBO.

a. If after trading the maximum quantity at the dcEBBO, interest at the dcEBBO remains, the System will place any remaining Complex Auction interest on the Strategy Book and manage the interest that is eligible to rest on the Strategy Book pursuant to subparagraph (c)(4), and cancel Complex Auction interest, including remaining complex order cAOC interest, that is not eligible to rest on the Strategy Book.

b. If all interest at the dcEBBO has been exhausted and Auction orders with a managed or limit price that locks or crosses the exhausted dcEBBO price remain, the System will place any remaining Complex Auction interest on the Strategy Book and manage the interest that is eligible to rest on the Strategy Book pursuant to subparagraph (c)(4) to the exhausted dcEBBO price, cancel Complex Auction interest, including remaining complex order cAOC interest, that is not eligible to rest on the Strategy Book, and cancel any complex Standard quotes that are locking or crossing the exhausted dcEBBO price. The System will then immediately initiate a reevaluation of the remaining interest from the Complex Auction and may initiate a new Complex Auction without regard to the RIP.

(ii) The System will place any eligible remaining non-marketable Complex Auction orders and quotes on the Strategy Book, cancel any remaining Complex Auction interest that is not eligible to rest on the Strategy Book, and cancel complex Standard quotes that would otherwise require management because of their price as described in subparagraph (c)(4) above if placed on the Strategy Book.

(7) **Allocation at the Conclusion of a Complex Auction**. Orders and quotes executed in a Complex Auction will be allocated first in price priority based on their original limit price, and thereafter as follows:

(i) Individual orders and quotes in the leg markets resting on the Simple Order Book prior to the initiation of a Complex Auction and that have remained unchanged during the Auction have first priority, provided the complex order can be executed in full (or in a permissible ratio) against orders and quotes on the Simple Order Book, provided that the prices of the components on the Simple Order Book are at or within the NBBO for each component. Orders and/or quotes resting on the Simple Order Book that execute against a complex order will be allocated pursuant to Rule 514(c).

(ii) Priority Customer complex orders resting on the Strategy Book before, or that are received during, the Response Time Interval, and Priority Customer RFR Responses, collectively have second priority and will be allocated in price-time priority.

(iii) Market Maker Priority Interest for Complex and RFR Responses from Market Makers with Priority Interest for Complex collectively have third priority and will be allocated on a pro-rata basis as defined in Rule 514(c)(2).

(iv) Market Maker non-Priority Interest for Complex and RFR Responses from Market Makers with non-Priority Interest for Complex collectively have fourth priority and will be allocated on a pro-rata basis as defined in Rule 514(c)(2).

(v) Non-Market Maker Professional Interest complex orders resting on the Strategy Book, non-Market Maker Professional Interest complex orders placed on the Strategy Book during the Response Time Interval, and non-Market Maker Professional Interest RFR Responses will collectively have fifth priority and will be allocated on a pro-rata basis as defined in Rule 514(c)(2).

(vi) Individual orders and quotes in the leg markets that are received or changed during the Complex Auction will collectively have sixth priority and will be allocated pursuant to Rule 514(c)(2).

(8) **Processing of Unrelated Complex Orders and Quotes.** Incoming unrelated complex orders and quotes that are eligible to join a Complex Auction and are received during the Response Time Interval for a Complex Auction-eligible order will join the Complex Auction, will be ranked by price, and will be allocated pursuant to subparagraph (7) above.

(9) **Processing of Non-cAOA Complex Orders.** A complex order not designated as cAOA will either be (i) executed in full at a single price or at multiple prices up to its limit price, with remaining contracts placed on the Strategy Book; (ii) executed until the order exhausts the opposite side dcEBBO, at which time the order will be placed on the Strategy Book and evaluated for Complex Auction eligibility; or (iii) cancelled.

(10) **Change in the BBO of the Leg Markets.** A change in the best bid or offer of the leg markets will not affect the processing of the Complex Auction. Any such changed bid or offer will be included in the evaluation at the end of the Response Time Interval.

(11) **Effect of Limit Up-Limit Down State.** If the underlying security of a Complex Auction-eligible order that is a market order enters a Limit State or Straddle State, as defined in Rule 530, the Complex Auction will end upon such underlying security's entering of the Limit or Straddle State if such market order is the only trading interest remaining on that side of the Complex Auction, in which case the remaining portion of such market order will be cancelled. If there are orders and/or quotes other than such market order on that side of the Complex Auction, such market order will be cancelled and the Complex Auction will continue. Any remaining complex orders and/or quotes that joined the Complex Auction will continue to be processed according to subparagraph (d) above.

(12) **Effect of Wide Market Conditions, SMAT Events, and Trading Halts.** If, during a Complex Auction, the underlying security and/or any component of a Complex Auction-eligible order is subject to a wide market condition, a SMAT Event or a trading halt, the Complex Auction will be handled as set forth in Interpretation and Policy .05(e) of this Rule.

(e) **Complex Liquidity Exposure Process ("cLEP") for Complex Orders.** The System will initiate a cLEP Auction whenever a complex order or eQuote would execute or post at a price that would violate its MPC Price, as described in Interpretation and Policy .05(f). The System will post the complex order or eQuote to the Strategy Book at its MPC Price and begin the cLEP Auction by broadcasting a liquidity exposure message to all subscribers of the Exchange's data feeds. The liquidity exposure message will include the symbol, side of the market, auction start price (MPC Price of the complex order or eQuote), and the imbalance quantity.

Response Time Interval. The "Response Time Interval" means the period of time during which responses to the liquidity exposure message may be entered. The duration of the Response Time Interval shall be no less than 100 milliseconds and no more than 5,000 milliseconds, as determined by the Exchange and announced through a Regulatory Circular.

Responses. Members may submit a response to the liquidity exposure message during the Response Time Interval. Responses may be submitted in $0.01 increments. Responses must be a cAOC Order or a cAOC eQuote as defined in Interpretation and Policy .02 of this Rule and may be submitted on either side of the market. Responses represent non-firm interest that can be withdrawn at any time prior to the end of the Response Time Interval. At the end of the Response Time Interval, responses are firm (i.e., guaranteed at the response price and size). Any responses not executed in full will expire at the end of the cLEP Auction. A response on the opposite side of the initiating order with a size greater than the aggregate size of interest at the same price on the same side of the market as the initiating order (the "aggregate auctioned size") will be capped for allocation purposes at the aggregate auctioned size.

End of Complex Liquidity Exposure Process. At the conclusion of the cLEP Auction the resulting trade price will be determined by the Exchange's Complex Auction Pricing described in subsection (d)(6) of this Rule and interest will be executed as provided in subsection (d)(6) of this Rule. In no event will the resulting trade price of a cLEP

Auction ever be more aggressive than the MPC Price. Remaining liquidity with an original limit price that is (i) less aggressive (lower for a buy order or eQuote, or higher for a sell order or eQuote) than or equal to the MPC Price will be handled in accordance with subsection (c)(2)(ii) – (v) of this Rule, or (ii) more aggressive than the MPC Price will be subject to the Reevaluation process as described below.

Allocation at the Conclusion of a Complex Liquidity Exposure Auction. Orders and quotes executed in a cLEP Auction will be allocated first in price priority based upon their original limit price, and thereafter in accordance with the Complex Auction allocation procedures described in subsection (d)(7)(i) – (vi) of this Rule.

Reevaluation. At the conclusion of a cLEP Auction, the System will calculate the next potential MPC Price for remaining liquidity with an original limit price more aggressive than the existing MPC Price. The next MPC Price will be calculated as the MPC Price plus (minus) the next MPC increment for buy (sell) orders (the "New MPC Price"). The System will initiate a cLEP Auction for liquidity that would execute or post at a price that would violate its New MPC Price. Liquidity with an original limit price less aggressive (lower for a buy order or eQuote, or higher for a sell order or eQuote) than or equal to the New MPC Price will be posted to the Strategy Book at its original limit price or handled in accordance with subsection (c)(2)(ii) – (v) of this Rule. The cLEP process will continue until no liquidity remains with an original limit price that is more aggressive than its MPC Price. At the conclusion of the cLEP process, any liquidity that has not been executed will be posted to the Strategy Book at its original limit price.

Interpretations and Policies:

.01. **Special Provisions Applicable to Stock-Option Orders**:

(a) **General.** Stock-option orders may be executed against other stock-option orders through the Strategy Book and Complex Auction. Stock-option orders will not be legged against the individual component legs, and the System will not generate a derived order based upon a stock-option order. A stock-option order shall not be executed on the System unless the underlying security component is executable at the price(s) necessary to achieve the desired net price.

Members may only submit stock-option orders if such orders comply with the Qualified Contingent Trade Exemption from Rule 611(a) of Regulation NMS under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Members submitting such complex orders represent that such orders comply with the Qualified Contingent Trade Exemption.

To participate in stock-option order processing, a Member must give up a Clearing Member previously identified to, and processed by the Exchange as a Designated Give Up for that Member in accordance with Rule 507 and which has entered into a brokerage agreement with one or more Exchange-designated broker-dealers that are not affiliated with the Exchange to electronically execute the underlying security component of the stock-option order at a stock trading venue selected by the Exchange-designated broker-dealer on behalf of the Member.

(b) **Process.** When a stock-option order is received by the Exchange, the System will validate that the stock-option order has been properly marked as required by Rule 200 of Regulation SHO under the Act ("Rule 200"). Rule 200 requires all broker-dealers to mark sell orders of equity securities as "long," "short," or "short exempt." Accordingly, Members submitting stock-option orders must mark the underlying security component (including ETF) "long," "short," or "short exempt" in compliance with Rule 200. If the stock-option order is not so marked, the order will be rejected by the System. Likewise, any underlying security component of a stock-option order sent by the Exchange to the Exchange-designated broker-dealer shall be marked "long," "short," or "short exempt" in the same manner in which it was received by the Exchange from the submitting Member.

If the stock-option order is properly marked, the System will determine whether the stock-option order is Complex Auction-eligible. If the stock-option order is Complex Auction-eligible, the System will initiate the Complex Auction Process described in paragraph (d) of this Rule. Any stock-option order executed utilizing the Complex Auction Process will comply with the requirements of Rule 201 of Regulation SHO under the Act ("Rule 201") as discussed further below.

When the short sale price test in Rule 201 is triggered for a covered security, a "trading center," such as the Exchange, an Exchange-designated broker-dealer, or a stock trading venue, as applicable, must comply with Rule 201. For purposes of this paragraph, the term "covered security" shall have the same meaning as in Rule 201(a)(1) of Regulation SHO. The term "covered security" is defined in Rule 201(a)(1) as any NMS stock as defined in Rule 600(b)(47) of Regulation NMS. Rule 201(a)(9) states that the term "trading center" shall have the same meaning as in Rule 600(b)(78). Rule 600(b)(78) of Regulation NMS defines a "trading center" as "a national securities exchange or national securities association that operates an SRO trading facility, an alternative trading system, an exchange market maker, an OTC market maker, or any other broker or dealer that executes orders internally by trading as principal or crossing orders as agent." Rule 201 requires a trading center to establish, maintain, and enforce written policies and procedures reasonably designed to prevent the execution or display of a short sale order of a covered security at a price that is less than or equal to the current national best bid if the price of that covered security decreases by 10% or more from the covered security's closing price as determined by the listing market for the covered security as of the end of regular trading hours on the prior day; and impose these requirements for the remainder of the day and the following day when a national best bid for the covered security is calculated and disseminated on a current and continuing basis by a plan processor pursuant to an effective national market system plan. A trading center such as the Exchange, an Exchange-designated broker-dealer and a stock trading venue, as applicable, on which the underlying security component is executed, must also comply with Rule 201(b)(1)(iii)(B), which provides that a trading center must establish, maintain, and enforce written policies and procedures reasonably designed to permit the execution or display of a short sale order of a covered security marked "short exempt" without regard to whether the order is at a price that is less than or equal to the current national best bid.

If the stock-option order is not Complex Auction-eligible, the System will determine if it is eligible to be executed against another inbound stock-option order or another stock-option order resting on the Strategy Book. If eligible, the System will route both sides of the matched underlying security component of the stock-option order as a Qualified Contingent Trade ("QCT") to an Exchange-designated broker-dealer for execution on a stock trading venue. The stock trading venue will then either successfully execute the QCT or cancel it back to the Exchange-designated broker-dealer, which in turn will either report the execution of the QCT or cancel it back to the Exchange. While the Exchange is a trading center pursuant to Rule 201, the Exchange will neither execute nor display the underlying security component of a stock-option order. Instead, the execution or display of the underlying security component of a stock-option order will occur on a trading center other than the Exchange, such as an Exchange-designated broker-dealer or other stock trading venue.

If the Exchange-designated broker-dealer or other stock trading venue, as applicable, cannot execute the underlying security component of a stock-option order in accordance with Rule 201, the Exchange will not execute the option component(s) of the stock-option order and will either place the unexecuted stock-option order on the Strategy Book or cancel it back to the submitting Member in accordance with the submitting Member's instructions (except that cAOC and cIOC stock-option orders and eQuotes will be cancelled). Once placed back onto the Strategy Book, the stock-option order will be handled in accordance with Rule 518, Interpretation and Policy .01(b).

If the stock-option order is not Complex Auction-eligible and cannot be executed or placed on the Strategy Book, it will be cancelled by the System. Otherwise, the stock-option order will be placed on the Strategy Book.

(c) **Option Component**. The option leg(s) of a stock-option order shall not be executed (i) at a price that is inferior to the Exchange's best bid (offer) in the option or (ii) at the Exchange's best bid (offer) in that option if one or more Priority Customer Orders are resting at the best bid (offer) price on the Simple Order Book in each of the option components and the stock-option order could otherwise be executed in full (or in a permissible ratio). If one or more Priority Customer Orders are resting at the best bid (offer) price on the Simple Order Book, at least one option component must trade at a price that is better than the corresponding bid or offer in the marketplace by at least $0.01. The option leg(s) of a stock-option order may be executed in a $0.01 increment, regardless of the minimum quoting increment applicable to that series.

(d) **Strategy Book**. Stock-option orders and quotes on the Strategy Book that are marketable against each other will automatically execute, subject to the condition noted in subparagraph (b) above of this Interpretation and Policy .01. Orders and quotes may be submitted by Members to trade against orders on the Strategy Book.

(e) **Stock-Option Orders in MIAX Emerald Complex Order Auctions**. Stock-option orders executed via Complex Auction shall trade in the sequence set forth in subparagraph 518(d)(5) above except that the provision regarding individual orders and quotes in the leg markets resting on the Simple Order Book prior to the initiation of a Complex Auction will not be applicable and such execution will be subject to the conditions noted above concerning the price of the option leg(s), together with all applicable securities laws.

(f) **Limit Up-Limit Down State**. When the underlying security of a stock-option order is in a limit up-limit down state as defined in Rule 530, such order will only execute if the calculated stock price is within the permissible Price Bands as determined by the SIP under the Plan to Address Extraordinary Market Volatility Pursuant to Rule 608 of Regulation NMS, as it may be amended from time to time (the "LULD Plan").

(g) **Parity Price Protection.** The System will provide parity price protection for strategies that consist of a sale (purchase) of one call and the purchase (sale) of 100 shares of the underlying stock ("Buy-Write") or that consist of the purchase (sale) of one put and the purchase (sale) of 100 shares of the underlying stock ("Married-Put"). A Parity Spread Variance ("PSV") value between $0.00 and $0.50 which will be uniform for all option classes traded on the Exchange, will be determined by the Exchange and communicated via Regulatory Circular. The PSV will be used to calculate a minimum option trading price limit that the System will prevent the option leg from trading below. For call option legs, the PSV value is added to the strike price of the option to establish a parity protected price for the strategy. For put option legs, the PSV value is subtracted from the strike price of the option to establish a parity protected price for the strategy. Married-Put and Buy-Write interest to buy (buy put and buy stock; or buy call and sell stock) that is priced below the parity protected price for the strategy will be rejected. Married-Put and Buy-Write interest to sell (sell put and sell stock; or sell call and buy stock) that is priced below the parity protected price for the strategy will be placed on the Strategy Book at the parity protected price for the strategy.

.02. **Market Maker Complex Quotes.**

(a) Market Maker complex quotes may be entered as either complex Standard quotes or complex eQuotes.

(1) A complex Standard quote is a complex quote submitted by a Market Maker that cancels and replaces the Market Maker's previous complex Standard quote for that side of the strategy, if any.

(2) A complex eQuote is a complex quote submitted by a Market Maker with a specific time in force that does not automatically cancel and replace the Market Maker's previous complex Standard quote or complex eQuote.

(b) The Exchange will determine, on a class-by-class basis, the complex strategies in which Market Makers may submit complex Standard quotes, and will notify Members of such determination via Regulatory Circular. Market Makers may submit complex eQuotes in their appointed options classes.

(c) A complex eQuote is either:

(1) A "Complex Auction-or-Cancel eQuote" or "cAOC eQuote," which is an eQuote submitted by a Market Maker that is used to provide liquidity during a specific Complex Auction with a time in force that corresponds with the duration of the Complex Auction. A cAOC eQuote with a size greater than the aggregate auctioned size (as defined in Rule 518(d)(4)) will be capped for allocation purposes at the aggregate auctioned size. cAOC eQuotes will not: (i) be executed against individual orders and quotes resting on the Simple Order Book; (ii) be eligible to initiate a Complex Auction, but may join a Complex Auction in progress; (iii) rest on the Strategy Book; or (iv) be displayed; or

(2) A "Complex Immediate-or-Cancel eQuote" or "cIOC eQuote," which is a complex eQuote with a time-in-force of IOC that may be matched with another complex quote or complex order for an execution to occur in whole

or in part upon receipt into the System. cIOC eQuotes will not: (i) be executed against individual orders and quotes resting on the Simple Order Book; (ii) be eligible to initiate a Complex Auction or join a Complex Auction in progress; (iii) rest on the Strategy Book; or (iv) be displayed. Any portion of a cIOC eQuote that is not executed will be immediately cancelled.

(d) Market Maker complex quotes are executed in the same manner as complex orders (as described in subparagraph (c)(3)(i) above), but will not be executed against bids and offers on the Simple Order Book via Legging as provided in subparagraph (c)(2)(iii) of this Rule. Market Maker complex Standard quotes may rest on the Strategy Book and are not subject to the managed interest process described in subparagraph (c)(4) of this Rule. An unexecuted complex Standard quote with a limit price that would otherwise be managed to the icEBBO will be cancelled.

(e) Market Makers are not required to enter complex quotes on the Strategy Book. Quotes for complex strategies are not subject to any quoting requirements that are applicable to Market Maker quotes in the simple market for individual options series or classes. Volume executed in complex strategies is not taken into consideration when determining whether Market Makers are meeting quotation obligations applicable to Market Maker quotes in the simple market for individual options.

.03. **Improvement Percentages.** The Exchange will use the following methods to determine whether a complex order is qualified to initiate a Complex Auction.

(a) **Initial Improvement Percentage ("IIP").** For complex orders received prior to the opening of all individual components of a complex strategy, the System will calculate an IIP value, which is a defined percentage of the current dcEBBO bid/ask differential once all of the components of the complex strategy have opened. Such percentage will be defined by the Exchange and communicated to Members via Regulatory Circular. If a Complex Auction-eligible order is priced equal to, or improves, the IIP value and is also priced equal to, or improves, other complex orders and/or quotes resting at the top of the Strategy Book, the complex order will be eligible to initiate a Complex Auction.

(b) **Upon Receipt Improvement Percentage ("URIP").** Upon receipt of a complex order when the complex strategy is open, the System will calculate a URIP value, which is a defined percentage of the current dcEBBO bid/ask differential. Such percentage will be defined by the Exchange and communicated to Members via Regulatory Circular. If a Complex Auction-eligible order is priced equal to, or improves, the URIP value and is also priced to improve other complex orders and/or quotes resting at the top of the Strategy Book, the complex order will be eligible to initiate a Complex Auction.

(c) **Reevaluation Improvement Percentage ("RIP").** Upon evaluation of a complex order resting at the top of the Strategy Book, the System will calculate a RIP value, which is a defined percentage of the current dcEBBO bid/ask differential. Such percentage will be defined by the Exchange and communicated to Members via Regulatory Circular. If a complex order resting at the top of the Strategy Book is priced equal to, or improves, the RIP value, the complex order will be eligible to initiate a Complex Auction.

.04. **Dissemination of Information.** Dissemination of information related to Complex Auction-eligible orders by the submitting Member to third parties will be deemed conduct inconsistent with just and equitable principles of trade as described in Rule 301.

.05. **Price and Other Protections.** Unless otherwise specifically set forth herein, the price and other protections contained in this Interpretation and Policy .05 apply to all complex order types set forth in Rule 518(b) above.

(a) **Vertical Spread Variance ("VSV") Price Protection.** A "Vertical Spread" is a complex strategy consisting of the purchase of one call (put) option and the sale of another call (put) option overlying the same security that have the same expiration but different strike prices. The VSV establishes minimum and maximum trading price limits for Vertical Spreads.

(1) The maximum possible trading price limit of the VSV is the difference between the two component strike prices plus a pre-set value. For example, a Vertical Spread consisting of the purchase of one January 30 call and the

sale of one January 35 call would have a maximum trading price limit of $5.00 plus a pre-set value. The minimum possible trading price limit of a Vertical Spread is always zero minus a pre-set value.

(2) The pre-set value will be uniform for all option classes traded on the Exchange as determined by the Exchange and communicated to Members via Regulatory Circular.

(b) **Calendar Spread Variance ("CSV") Price Protection**. A "Calendar Spread" is a complex strategy consisting of the purchase of one call (put) option and the sale of another call (put) option overlying the same security that have different expirations but the same strike price. The CSV establishes a minimum trading price limit for Calendar Spreads.

(1) The maximum possible value of a Calendar Spread is unlimited, thus there is no maximum price protection for Calendar Spreads. The minimum possible trading price limit of a Calendar Spread is zero minus a pre-set value.

(2) The pre-set value will be uniform for all option classes traded on the Exchange as determined by the Exchange and communicated to Members via Regulatory Circular.

(3) CSV Price Protection applies only to strategies in American-style option classes.

(c) **VSV and CSV Price Protection**. If the execution price of a complex order would be outside of the limits set forth in subparagraphs (a)(1) and (b)(1) of this Interpretation and Policy .05, such complex order will be placed on the Strategy Book and will be managed to the appropriate trading price limit as described in subparagraph (c)(4) above. Orders to buy below the minimum trading price limit and orders to sell above the maximum trading price limit (in the case of Vertical Spreads) will be rejected by the System.

(d) **Implied Away Best Bid or Offer ("ixABBO") Price Protection**. The ixABBO price protection feature is a price protection mechanism under which, when in operation as requested by the submitting Member, a buy order will not be executed at a price that is higher than each other single exchange's best displayed offer for the complex strategy, and under which a sell order will not be executed at a price that is lower than each other single exchange's best displayed bid for the complex strategy. For stock-option orders, the ixABBO for a complex strategy will be calculated using the BBO for each component on each individual away options market and the NBBO for the stock component. The ixABBO is calculated using the best net bid and offer for a complex strategy using each other exchange's displayed best bid or offer on their simple order book. The ixABBO price protection feature must be engaged on an order-by-order basis by the submitting Member and is not available for complex Standard quotes, complex eQuotes, cAOC orders, cPRIME Orders, cC2C Orders, and cQCC Orders.

(e) **Wide Market Conditions, SMAT Events and Halts**

(1) **Wide Market Condition.** A "wide market condition" is defined as any individual option component of a complex strategy having, at the time of evaluation, an EBBO quote width that is wider than the permissible valid quote width as defined in Rule 603(b)(4).

(i) **Wide Market Condition During Free Trading**. If a wide market condition exists for a component of a complex strategy, trading in the complex strategy will be suspended, except as otherwise set forth in subparagraph (e)(1)(iii) below. The Strategy Book will remain available for Members to enter and manage complex orders and quotes. New Complex Auctions will not be initiated and incoming Complex Auction-eligible orders that could have otherwise caused an auction to begin will be placed on the Strategy Book. Incoming complex orders with a time in force of IOC will be cancelled.

The System will continue to evaluate the Strategy Book. If a wide market condition exists for a component of a complex strategy at the time of evaluation, complex orders or quotes that could have otherwise been executed will not be executed until the wide market condition no longer exists. When the wide market condition no longer exists, the System will again evaluate the Strategy Book pursuant to subparagraph (c)(5)(ii) of this Rule, and

will use the process and criteria respecting the RIP as described in Interpretation and Policy .03(c) of this Rule to determine whether complex order interest exists to initiate a Complex Auction, or whether to commence trading in the complex strategy without a Complex Auction.

(ii) **Wide Market Condition During a Complex Auction.** If, at the expiration of the Response Time Interval, a wide market condition exists for a component of a complex strategy in the Complex Auction, trading in the complex strategy will be suspended, and any RFR Responses will be cancelled. Remaining Complex Auction-eligible orders will then be placed on the Strategy Book. When the wide market condition no longer exists, the System will evaluate the Strategy Book pursuant to subparagraph (c)(5)(ii) of this Rule, and will use the process and criteria respecting the RIP as described in Interpretation and Policy .03(c) of this Rule to determine whether complex order interest exists to initiate a Complex Auction, or whether to commence trading in the complex strategy without a Complex Auction.

(iii) **Wide Market Condition and cPRIME, cC2C and cQCC Orders.** A wide market condition shall have no impact on the trading of cPRIME Orders and processing of cPRIME Auctions (including the processing of cPRIME Auction responses) pursuant to Rule 515A, Interpretation and Policy .12, or on the trading of cC2C and cQCC Orders pursuant to Rules 515(h)(3) and (4). Such trading and processing will not be suspended and will continue during wide market conditions.

(2) **SMAT Events**

(i) **SMAT Events During Free Trading.** If a SMAT Event exists during free trading for an option component of a complex strategy, trading in the complex strategy will be suspended. The Strategy Book will remain available for Members to enter and manage complex orders and quotes. New Complex Auctions may be initiated for incoming Complex Auction-eligible orders that meet the requirements of the URIP as described in Interpretation and Policy .03(b) of this Rule. Incoming complex orders and quotes that could otherwise be executed during the SMAT Event(s) without entering the Complex Auction process will be placed on the Strategy Book. Incoming complex orders received during a SMAT Event with a time in force of IOC will be cancelled by the System.

The System will continue to evaluate the Strategy Book. When the SMAT Event(s) no longer exist(s), the System will evaluate the Strategy Book pursuant to subparagraph (c)(5)(ii) of this Rule, and will use the process and criteria respecting the RIP as described in Interpretation and Policy .03(c) of this Rule to determine whether complex order interest exists to initiate a Complex Auction, or whether to commence trading in the complex strategy without a Complex Auction.

(ii) **SMAT Events During a Complex Auction.** If, at the end of the Response Time Interval, an option component of a complex strategy is in a SMAT Event, trading in the complex strategy will be suspended and all RFR Responses will be cancelled. Remaining Complex Auction-eligible orders will then be placed on the Strategy Book. When the SMAT Event(s) no longer exist(s), the System will evaluate the Strategy Book pursuant to subparagraph (c)(5)(ii) of this Rule, and will use the process and criteria respecting the RIP as described in Interpretation and Policy .03(c) of this Rule to determine whether marketable complex order interest exists to initiate a Complex Auction, or whether to commence trading in the complex strategy without a Complex Auction.

(3) **Halts**

(i) **Halts During Free Trading.** If a trading halt exists for the underlying security or a component of a complex strategy, trading in the complex strategy will be suspended. The Strategy Book will remain available for members to enter and manage complex orders and quotes. Incoming complex orders and quotes that could otherwise be executed or initiate a Complex Auction in the absence of a halt will be placed on the Strategy Book. Incoming complex orders and quotes with a time in force of IOC will be cancelled.

When trading in the halted component(s) and/ or underlying security of the complex order resumes, the System will evaluate the Strategy Book pursuant to subparagraph (c)(2)(i) of this Rule, and will use the process and criteria respecting the IIP as described in Interpretation and Policy .03(a) of this Rule to determine whether

complex order interest exists to initiate a Complex Auction, or whether to commence trading in the complex strategy without a Complex Auction.

(ii) **Halts During the Complex Auction.** If, during a Complex Auction, any component(s) and/or the underlying security of a Complex Auction-eligible order is halted, the Complex Auction will end early without trading and all RFR Responses will be cancelled. Remaining complex orders will be placed on the Strategy Book if eligible, or cancelled. When trading in the halted component(s) and/or underlying security of the complex order resumes, the System will evaluate the Strategy Book pursuant to subparagraph (c)(2)(i) above, and will use the process and criteria respecting the IIP as described in Interpretation and Policy .03(a) of this Rule to determine whether marketable complex order interest exists to initiate a Complex Auction, or whether to commence trading in the complex strategy without a Complex Auction.

(f) **Complex MIAX Emerald Price Collar Protection**. The Complex MIAX Emerald Price Collar ("MPC") price protection feature is an Exchange-wide price protection mechanism under which a complex order or eQuote to sell will not be displayed or executed at a price that is lower than the opposite side cNBBO bid at the time the MPC is assigned by the System (i.e., upon receipt or upon opening) by more than a specific dollar amount expressed in $0.01 increments (the "MPC Setting"), and under which a complex order or eQuote to buy will not be displayed or executed at a price that is higher than the opposite side cNBBO offer at the time the MPC is assigned by the System by more than the MPC Setting (each the "MPC Price").

(1) All complex orders, together with cAOC eQuotes and cIOC eQuotes (as defined in Interpretations and Policies .02(c)(1) and (2) of this Rule) (collectively, eQuotes"), are subject to the MPC price protection feature.

(2) The minimum MPC Setting is $0.00 and the maximum MPC Setting is $1.00, as determined by the Exchange and communicated to Members via Regulatory Circular. The MPC Setting will apply equally to all options listed on the Exchange in which complex orders are available, and will be the same dollar amount for both buy and sell transactions.

(3) The MPC Price is established:

(i) upon receipt of the complex order or eQuote during free trading, or

(ii) if the complex order or eQuote is not received during free trading, at the opening (or reopening following a halt) of trading in the complex strategy; or

(iii) upon evaluation of the Strategy Book by the System when a wide market condition, as described in Interpretation and Policy .05(e)(1) of this Rule, no longer exists.

(4) A Temporary MPC Price ("TMPC Price") is established solely for use during a Complex Auction (as described in Rule 518(d)) or a cPRIME Auction (as described in Rule 515A, Interpretation and Policy .12) for (i) any complex order resting on the Strategy Book that does not have an MPC assigned and is eligible to participate in a Complex Auction or a cPRIME Auction in that strategy; or (ii) any complex order or eQuote received during a cPRIME Auction if a wide market condition existed in a component of the strategy at the start of the cPRIME Auction. The TMPC Price shall be the auction start price (the auction start price of a cPRIME Agency Order for a cPRIME Auction is defined in Rule 515A.12(a)(i) and the auction start price for a Complex Auction is defined in Rule 518(d)(1)) plus (minus) the MPC Setting if the order is a buy (sell). If the complex order or eQuote eligible to participate in the Complex Auction or cPRIME Auction is priced more aggressively than the TMPC Price (i.e., the complex order or eQuote price is greater than the TMPC Price for a buy order, or the complex order or eQuote price is lower than the TMPC Price for a sell order) the complex order or eQuote may participate in the auction but will not trade through its TMPC Price.

(5) If the MPC Price is priced less aggressively than the limit price of the complex order or eQuote (i.e., the MPC Price is less than the complex order or eQuote's bid price for a buy, or the MPC Price is greater than the complex order or eQuote's offer price for a sell), or if the complex order is a market order, the complex order or eQuote will

be displayed and/or executed up to its MPC Price. Any unexecuted portion of such a complex order or eQuote: (A) will be subject to the cLEP as described in subsection (e) of this Rule, and (B) may be subject to the managed interest process described in Rule 518(c)(4).

(6) If the MPC Price is priced more aggressively than the limit price of the complex order or eQuote (i.e., the MPC Price is greater than the complex order or eQuote's bid price for a buy, or the MPC Price is less than the complex order or eQuote's offer price for a sell), the complex order or eQuote will be displayed and/or executed up to its limit price. Any unexecuted portion of such a complex order will be submitted, if eligible, to the managed interest process described in Rule 518(c)(4), or placed on the Strategy Book at its limit price. Any unexecuted portion of such a complex eQuote will be cancelled.

(g) **Market Maker Single Side Protection.** A Market Maker may determine to engage the Market Maker Single Side Protection ("SSP") feature by Market Participant Identifier ("MPID"). If the full remaining size of a Market Maker's complex Standard quote or cIOC eQuote in a strategy is exhausted by a trade, the System will trigger the SSP for the traded side of the strategy. When triggered, the System will cancel all complex Standard quotes and block all new inbound complex Standard quotes and cIOC eQuotes for that particular side of that strategy for that MPID. The System will provide a notification message to the Market Maker. The block will remain in effect until the Market Maker notifies the Exchange (in a manner required by the Exchange and communicated to Members by Regulatory Circular) to reset the SSP ("SSP Reset").

.06. **MIAX Emerald Order Monitor for Complex Orders ("cMOM").**

(a) **Price Protection.** cMOM defines a price range outside of which a complex limit order will not be accepted by the System. cMOM is a number defined by the Exchange and communicated to Members via Regulatory Circular. The default price range for cMOM will be greater than or equal to a price through the cNBBO for the complex strategy to be determined by the Exchange and communicated to Members via Regulatory Circular. Such price will not be greater than $2.50. A complex limit order to sell will not be accepted at a price that is lower than the cNBBO bid, and a complex limit order to buy will not be accepted at a price that is higher than the cNBBO offer, by more than cMOM. A complex limit order that is priced through this range will be rejected. The cMOM Price Protection Feature shall not apply to cPRIME Orders (as defined in Rule 515A, Interpretation and Policy .12), cC2C Orders (as defined in Rule 518(b)(5), and cQCC Orders, as defined in Rule 518(b)(6).

(b) **Complex Order Size Protections**. The System will prevent certain complex orders from executing or being placed on the Strategy Book if the size of the complex order exceeds the complex order size protection designated by the Member. If the maximum size of complex orders is not designated by the Member, the Exchange will set a maximum size of complex orders on behalf of the Member by default. Members may designate the complex order size protection on a firm wide basis. The default maximum size for complex orders will be determined by the Exchange and announced to Members through a Regulatory Circular.

(c) **Open Complex Order Protection**. The System will reject any complex orders that exceed the maximum number of open complex orders held in the System on behalf of a particular Member, as designated by the Member. Members may designate the open complex order protection on a firm wide basis. If the maximum number of open complex orders is not designated by the Member, the Exchange will set a maximum number of open complex orders on behalf of the Member by default. The default maximum number of open complex orders will be determined by the Exchange and announced to Members through a Regulatory Circular.

(d) **Open Complex Contract Protection**. The System will reject any complex orders that exceed the maximum number of open complex contracts represented by complex orders held in the System on behalf of a particular Member, as designated by the Member. Members may designate the open complex contract protection on a firm wide basis. If the maximum number of open complex contracts is not designated by the Member, the Exchange will set a maximum number of open complex contracts on behalf of the Member by default. The default maximum number of open complex contracts will be determined by the Exchange and announced to Members via Regulatory Circular.

(e) Except as provided in subparagraph .06(a) above, the protections set forth in this Interpretation and Policy .06 will be available for complex orders as determined by the Exchange and communicated to Members via Regulatory Circular.

[Adopted: December 20, 2018; amended March 6, 2019 (SR-EMERALD-2019-13); amended March 6, 2019 (SR-EMERALD-2019-14)]

Rule 519. MIAX Emerald Order Monitor

(a) **Order Price Protections.** In order to avoid the occurrence of potential obvious or catastrophic errors on the Exchange, the System will take the following steps in accordance with the MIAX Emerald Order Monitor, which will prevent certain orders from executing or being placed on the Book at prices outside pre-set standard limits. Beginning after the Opening Process is complete, the MIAX Emerald Order Monitor will be operational each trading day until the close of trading. The MIAX Emerald Order Monitor will not be operational during a trading halt.

(1) **Market Orders to Sell.**

(i) If the Exchange upon initial receipt or reevaluation evaluates a market order to sell an option when the national best bid is zero and the Exchange's disseminated offer is equal to or less than $0.10, the System will convert the market order to sell to a limit order to sell with a limit price of one minimum trading increment. In this case, such sell orders will automatically be placed on the Book in time priority and will be displayed at the appropriate Minimum Price Variation.

(ii) If the Exchange upon initial receipt or reevaluation evaluates a market order to sell an option when the national best bid is zero and the national best offer is greater than $0.10, the System will cancel the market order to sell.

(2) **Market Orders to Buy or Sell.**

(i) If the differential between the bid and the offer of the NBBO is equal to or greater than $5.00, market orders to buy or sell will be rejected by the System upon receipt.

(ii) Notwithstanding the foregoing, certain options classes may be designated by the Exchange as Extended Market Width classes and as such will be exempt from subparagraph (a)(2)(i) above. A list of Extended Market Width classes will be made available to Members through the issuance of a Regulatory Circular.

(3) **Limit Orders to Buy.** For options with a National Best Offer ("NBO") greater than $0.50 the System will reject an incoming limit order that has a limit price equal to or greater than the NBO by the lesser of (i) $2.50, or (ii) 50% of the NBO price. For options with an NBO less than or equal to $0.50 the System will reject an incoming limit order that has a limit price that is equal to or greater than the NBO price by $0.25.

For example: (A) if the NBO is $12.00 an incoming limit order to buy options for $14.50 or more will be rejected; and (B) if the NBO is $0.10 an incoming limit order to buy options for $0.15 will not be rejected; whereas if the NBO is $0.10 an incoming limit order to buy options for $0.35 will be rejected as the limit price of the order is $0.25 greater than the NBO.

(4) **Limit Orders to Sell.** For options with a National Best Bid ("NBB") equal to or greater than $0.25 the System will reject an incoming limit order that has a limit price equal to or less than the NBB by the lesser of (i) $2.50, or (ii) 50% of the NBB price. For options with an NBB of $0.25 or less the System will accept any incoming limit order.

For example: (A) if the NBB is $12.00 an incoming limit order to sell options for $9.50 or less will be rejected, and (B) if the NBB is $0.30 an incoming limit order to sell options for $0.15 will be rejected; whereas if the NBB is

$0.30 an incoming limit order to sell options for $0.20 will not be rejected as the limit price of the order is not less than 50% of the NBB price.

(b) **Order Size Protection.** The System will prevent certain orders from executing or being placed on the Book if the size of the order exceeds the order size protection designated by the Member. If the maximum size of an order is not designated by the Member, the Exchange will set a maximum order size on behalf of the Member by default. Members may designate the order size protection on a firm wide basis. The default maximum size of an order will be determined by the Exchange and announced to Members through a Regulatory Circular.

(c) **Open Order Protection.** The System will reject any orders that exceed the maximum number of open orders held in the System on behalf of a particular Member, as designated by the Member. Members may designate the open order protection on a firm wide basis. If the maximum number of open orders is not designated by the Member, the Exchange will set a maximum number of open orders on behalf of the Member by default. The default maximum number of open orders will be determined by the Exchange and announced to Members through a Regulatory Circular.

(d) **Open Contract Protection.** The System will reject any orders that exceed the maximum number of open contracts represented by orders held in the System on behalf of a particular Member, as designated by the Member. Members may designate the open contract protection on a firm wide basis. If the maximum number of open contracts is not designated by the Member, the Exchange will set a maximum number of open contracts on behalf of the Member by default. The default maximum number of open contracts will be determined by the Exchange and announced to Members through a Regulatory Circular.

Interpretations and Policies:

.01 For purposes of this rule, in singly listed series the EBBO shall be deemed to be the NBBO.

.02 The order price protections of the MIAX Emerald Order Monitor pursuant to section (a) will not apply to incoming orders marked as Intermarket Sweep Orders ("ISO").

[Adopted: December 20, 2018; amended February 11, 2019 (SR-EMERALD-2019-03)]

Rule 519A. Risk Protection Monitor

(a) **Voluntary Risk Protection Functionality.** The MIAX Emerald System will maintain a counting program ("counting program") for each participating Member that will count the number of orders entered and the number of contracts traded via an order entered by a Member on the Exchange within a specified time period that has been established by the Member (the "specified time period"). The maximum duration of the specified time period will be established by the Exchange and announced via a Regulatory Circular. The Risk Protection Monitor maintains one or more Member-configurable Allowable Order Rate settings and Allowable Contract Execution Rate settings. When a Member's order is entered or when an execution of a Member's order occurs, the System will look back over the specified time period to determine if the Member has: (i) entered during the specified time period a number of orders exceeding their Allowable Order Rate setting(s), or (ii) executed during the specified time period a number of contracts exceeding their Allowable Contract Execution Rate setting(s). Once engaged, the Risk Protection Monitor will then, as determined by the Member: automatically either (A) prevent the System from receiving any new orders in all series in all classes from the Member; (B) prevent the System from receiving any new orders in all series in all classes from the Member and cancel all existing orders with a time-in-force of Day in all series in all classes from the Member; or (C) send a notification to the Member without any further preventative or cancellation action by the System. When engaged, the Risk Protection Monitor will still allow the Member to interact with existing orders entered prior to exceeding the Allowable Order Rate setting or the Allowable Contract Execution Rate setting, including sending cancel order messages and receiving trade executions from those orders. The Risk Protection Monitor shall remain engaged until the Member communicates with the Help Desk to enable the acceptance of new orders.

(b) **Mandatory Participation.** Members must establish at least one Allowable Order Rate setting, with a corresponding specified time period of not less than one second, and not to exceed ten seconds, as established by the Exchange and communicated to Members via Regulatory Circular (a "Corresponding Specified Time Period") and at least one Allowable Contract Execution Rate setting (with a Corresponding Specified Time Period), both of which must be configured to perform the step set forth in either (A) or (B) of subparagraph (a) of this Rule above, upon engagement of the Risk Protection Monitor. Members may establish additional Allowable Order Rate settings and additional Allowable Contract Execution Rate settings, and any such additional settings may be configured to perform the step set forth in either (A), (B), or (C) of subparagraph (a) of this Rule above, upon engagement of the Risk Protection Monitor.

Interpretations and Policies:

.01 **Member Grouping**.

(a) Members may elect to group with other Members to enable the Risk Protection Monitor to apply collectively to the group. The Members in the group must designate a group owner. Members may elect to group provided that either: (i) there is at least 75% common ownership between the firms as reflected on each firm's Form BD, Schedule A; or (ii) there is written authorization signed by all Members in the group and the group owner maintains exclusive control of all orders sent to the Exchange from each MPID within the group.

(b) A Member may elect to group with the Member's clearing firm. A clearing firm may also elect to group several Members to enable the Risk Protection Monitor to apply collectively to the group with the clearing firm designated as the group owner, provided that the clearing firm serves as the clearing firm for all the MPIDs of the group and there is written authorization signed by the clearing firm and each Member of the group. A clearing firm that has grouped several Members may only receive warning messages pursuant to Interpretation and Policy .03 of this Rule, unless one Member of the group maintains exclusive control of all orders sent to the Exchange from each MPID within the group.

(c) The Risk Protection Monitor for groups will operate in the same manner as described in paragraphs (a) and (b) of Rule 519A, except that: (i) the counting program will count the number of orders entered and the number of contracts traded resulting from an order entered by all MPIDs in the group collectively; (ii) the System will trigger the Risk Protection Monitor when the group collectively exceeds either the Allowable Order Rate or Allowable Contract Execution Rate for the group; (iii) once engaged, the Risk Protection Monitor will then either automatically prevent the System from receiving any new orders in all series in all classes from each MPID in the group, and, if designated by the group owner's instructions, cancel all orders with a time in force of Day in all series in all classes from the group, or send a notification without any further preventative or cancellation action by the System; and (iv) only the designated group owner may request through the Help Desk to enable the acceptance of new orders for all the Members of the group.

.02 PRIME Orders, cPRIME Orders, QCC Orders, cQCC Orders, Customer Cross Orders, cC2C Orders, PRIME Solicitation Orders and GTC Orders participate in the Risk Protection Monitor as follows:

(a) the System includes PRIME Orders, cPRIME Orders, QCC Orders, cQCC Orders, Customer Cross Orders, cC2C Orders, PRIME Solicitation Orders and GTC Orders in the counting program for purposes of this Rule;

(b) PRIME Orders, cPRIME Orders, PRIME Solicitation Orders, QCC Orders, cQCC Orders, Customer Cross Orders, and cC2C Orders will each be counted as two orders for the purpose of calculating the Allowable Order Rate.

(c) Once engaged, the Risk Protection Monitor will not cancel any existing PRIME Orders, cPRIME Orders, PRIME Solicitation Orders, AOC Orders, OPG Orders, or GTC Orders. PRIME Orders, cPRIME Orders, PRIME Solicitation Orders and GTC Orders will remain in the System available for trading when the Risk Protection Monitor is engaged.

.03 Members may elect to receive warning notifications indicating that a specific percentage of an Allowable Order Rate or an Allowable Contract Execution Rate has been met.

.04 At the request of a Member or in order to maintain a fair and orderly market, the Help Desk may pause and restart the specified time period used by the counting program or clear and reset any calculated Allowable Order Rate or Allowable Contract Execution Rate.

.05 Complex orders, as defined in Rule 518(a), participate in the Risk Protection Monitor as set forth above in this Rule 519A. Regardless of the number of legs that make up the Complex order, each Complex order will be counted as a single order for the purpose of calculating the Allowable Order Rate. Each contract executed in each component of a Complex order will be counted as an executed contract for purposes of calculating the Allowable Contract Execution Rate.

[Adopted: December 20, 2018]

Rule 519B. [Reserved]

Rule 519C. Mass Cancellation of Trading Interest

(a) **Cancel.** A Member may cancel all or a subset of its orders in the System, by firm name or by Market Participant Identifier ("MPID"), by requesting the Exchange staff to effect such cancellations.

(b) **Cancel and Block.**

(1) An EEM may request that the Exchange cancel all or a subset of its orders in the System and block all new inbound orders.

(2) A Market Maker may request that the Exchange remove all or a subset of its (i) quotations in the System and block all or a subset of its new inbound quotations by firm name or MPID; or (ii) Standard quotations in the System and block all or a subset of its new inbound Standard quotations by MPID.

The block will remain in effect until the Member requests that the Exchange remove the block.

(c) **Detection of Loss of Communication**

(1) **MIAX Emerald Express Interface ("MEI").** When a Loss of Communication is detected on an MEI port during a certain time period ("xx" seconds), the System will close the session and automatically cancel quotes and eQuotes, as configured by the Member, provided that when a Loss of Communication is detected on the last connected MEI port during a certain time period ("xx" seconds), the System will close the session and automatically cancel quotes and eQuotes. The Exchange shall determine the appropriate period of ("xx" seconds) and shall notify Members of the value of "xx" seconds via Regulatory Circular. In no event shall "xx" be less than one (1) second or greater than ten (10) seconds.

(2) **Financial Information eXchange ("FIX") Protocol.** When a Loss of Communication is detected on a FIX port the System will logoff the Member's session and (i) cancel all eligible orders for the FIX Session if instructed by the Member upon login, or (ii) cancel all eligible orders identified by the Member. Following a disconnection, a reconnection will not be permitted for a certain period of time ("yy" seconds). The Exchange shall determine the appropriate period of ("yy" seconds) and shall notify Members of the value of "yy" seconds via Regulatory Circular. In no event shall "yy" be less than one (1) second or greater than ten (10) seconds.

Interpretations and Policies:

.01 Good 'Til Cancelled ("GTC") Orders, as defined in Rule 516 and PRIME Orders, as defined in Rule 515A, are not eligible for automatic cancellation under paragraph (c) above.

.02 For purposes of this Rule 519C:

(i) A "Heartbeat" message is a communication which acts as a virtual pulse between the Exchange System and the Member's system. The Heartbeat message sent by the Member and received by the Exchange allows the Exchange to continually monitor its connection with the Member.

(ii) "Loss of Communication"

Is determined on an MEI port by (a) the lack of Heartbeats and/or Heartbeat responses as determined by the Exchange and communicated to Members via Regulatory Circular, or (b) the lack of data transmission from the Member, within a certain time period as determined by the Exchange and communicated to Members via Regulatory Circular.

Is determined on a FIX port by the lack of Heartbeats and/or Heartbeat responses as determined by the Exchange and communicated to Members via Regulatory Circular, within a certain time period as specified by the Member upon login.

[Adopted: December 20, 2018]

Rule 520. Limitations on Orders

(a) **Limit Orders.**

(1) The Exchange shall designate classes in which Electronic Exchange Members may enter into the System, as principal or as agent, buy and sell limit orders in the same option series, for the account or accounts of the same or related beneficial owners.

(2) In all other classes, Electronic Exchange Members shall not enter into the System, as principal or agent, limit orders in the same options series, for the account or accounts of the same or related beneficial owners, in such a manner that the Electronic Exchange Member or the beneficial owner(s) effectively is operating as a market maker by holding itself out as willing to buy and sell such option contract on a regular or continuous basis. In determining whether an Electronic Exchange Member or beneficial owner effectively is operating as a market maker, the Exchange will consider, among other things: the simultaneous or near-simultaneous entry of limit orders to buy and sell the same option contract; the multiple acquisition and liquidation of positions in the same options series during the same day; and the entry of multiple limit orders at different prices in the same options series.

(b) **Principal Transactions**. Electronic Exchange Members may not execute as principal orders they represent as agent unless (i) agency orders are first exposed on the Exchange for at least one (1) second, (ii) the Electronic Exchange Member has been bidding or offering on the Exchange for at least one (1) second prior to receiving an agency order that is executable against such bid or offer, or (iii) the Electronic Exchange Member utilizes the MIAX Emerald PRIME pursuant to Rule 515A.

(c) **Solicitation Orders**. Electronic Exchange Members may not execute orders they represent as agent on the Exchange against orders solicited from Members and non-member broker-dealers to transact with such orders unless the unsolicited order is first exposed on the Exchange for at least one (1) second, or the Electronic Exchange Member utilizes the MIAX Emerald PRIME or the PRIME Solicitation Mechanism pursuant to Rule 515A.

(d) **Orders for the Account of Another Member**. Electronic Exchange Members shall not cause the entry of orders for the account of a MIAX Emerald Market Maker that is exempt from the provisions of Regulation T of the Board of Governors of the Federal Reserve System pursuant to Section 7 of the Exchange Act unless such orders are identified as orders for the account of a MIAX Emerald Market Maker in the manner prescribed by the Exchange.

Interpretations and Policies:

.01 Rule 520(b) prevents an Electronic Exchange Member from executing agency orders to increase its economic gain from trading against the order without first giving other trading interest on the Exchange an opportunity to either trade with the agency order or to trade at the execution price when the Member was already bidding or offering on the Book. However, the Exchange recognizes that it may be possible for an Electronic Exchange Member to establish a relationship with a customer or other person (including affiliates) to deny agency orders the opportunity to interact on the Exchange and to realize similar economic benefits as it would achieve by executing agency orders as principal. It will be a violation of Rule 520(b) for an Electronic Exchange Member to be a party to any arrangement designed to circumvent Rule 520(b) by providing an opportunity for a customer or other person (including affiliates) to regularly execute against agency orders handled by the Electronic Exchange Member immediately upon their entry into the System.

.02 It will be a violation of Rule 520(c) for an Electronic Exchange Member to cause the execution of an order it represents as agent on the Exchange by orders it solicited from Members and non-member broker-dealers to transact with such orders, whether such solicited orders are entered into the System directly by the Electronic Exchange Member or by the solicited party (either directly or through another Member), if the Member fails to expose orders on the Exchange as required by Rule 520(c).

.03 **[Reserved]**

.04 For purposes of paragraphs (b) and (c) above, orders subject to the Managed Interest Process described in Rule 515(c)(1)(ii) and Market Maker orders and quotes displayed at a price other than their limit price or quote price as described in Rule 515(d) are not deemed "exposed" on the Exchange.

[Adopted: December 20, 2018]

Rule 521. Nullification and Adjustment of Options Transactions Including Obvious Errors

The Exchange may nullify a transaction or adjust the execution price of a transaction in accordance with this Rule. However, the determination as to whether a trade was executed at an erroneous price may be made by mutual agreement of the affected parties to a particular transaction. A trade may be nullified or adjusted on the terms that all parties to a particular transaction agree, provided, however, that such agreement to nullify or adjust must be conveyed to the Exchange in a manner prescribed by the Exchange prior to 8:30 a.m. Eastern Time on the first trading day following the execution. It is considered conduct inconsistent with just and equitable principles of trade for any Member to use the mutual adjustment process to circumvent any applicable Exchange rule, the Act or any of the rules and regulations thereunder.

(a) **Definitions.**

(1) **Customer.** For purposes of this Rule, the term "Customer" means a Priority Customer as defined in Rule 100.

(2) **Erroneous Sell/Buy Transaction.** For purposes of this Rule, an "erroneous sell transaction" is one in which the price received by the person selling the option is erroneously low, and an "erroneous buy transaction" is one in which the price paid by the person purchasing the option is erroneously high.

(3) **Official.** For purposes of this Rule, an "Official" is an Officer of the Exchange or such other employee designee of the Exchange that is trained in the application of this Rule.

(4) **Size Adjustment Modifier.** For purposes of this Rule, the Size Adjustment Modifier will be applied to individual transactions as follows:

Number of Contracts per Execution	Adjustment – TP Plus/Minus
1-50	N/A
51-250	2 times adjustment amount
251-1000	2.5 times adjustment amount
1001 or more	3 times adjustment amount

(b) **Theoretical Price.** Upon receipt of an obvious or catastrophic error notification (as described below) and prior to any review of a transaction execution price, the "Theoretical Price" for the option must be determined. For purposes of this Rule, if the applicable option series is traded on at least one other options exchange, then the Theoretical Price of an option series is the last NBB just prior to the trade in question with respect to an erroneous sell transaction or the last NBO just prior to the trade in question with respect to an erroneous buy transaction unless one of the exceptions in subparagraphs (b)(1) through (3) below exists. For purposes of this provision, when a single order received by the Exchange is executed at multiple price levels, the last NBB and last NBO just prior to the trade in question would be the last NBB and last NBO just prior to the Exchange's receipt of the order. The Exchange will rely on this paragraph (b) and Interpretation and Policy .04 of this Rule when determining Theoretical Price.

(1) **Transactions at the Open.** For a transaction occurring as part of the Opening Process (as described in Rule 503) the Exchange will determine the Theoretical Price if there is no NBB or NBO for the affected series just prior to the erroneous transaction or if the bid/ask differential of the NBB and NBO just prior to the erroneous transaction is equal to or greater than the Minimum Amount set forth in the chart contained in subparagraph (b)(3) below. If the bid/ask differential is less than the Minimum Amount, the Theoretical Price is the NBB or NBO just prior to the erroneous transaction.

(2) **No Valid Quotes.** The Exchange will determine the Theoretical Price if there are no quotes or no valid quotes for comparison purposes. Quotes that are not valid are:

(A) all quotes in the applicable option series published at a time where the last NBB is higher than the last NBO in such series (a "crossed market");

(B) quotes published by the Exchange that were submitted by either party to the transaction in question;

(C) quotes published by another options exchange if either party to the transaction in question submitted the quotes in the series representing such options exchange's best bid or offer, provided that the Exchange will only consider quotes invalid on other options exchanges in up to twenty-five (25) total options series that the party identifies to the Exchange the quotes which were submitted by such party and published by other options exchanges; and

(D) quotes published by another options exchange against which the Exchange has declared self-help.

(3) **Wide Quotes.** The Exchange will determine the Theoretical Price if the bid/ask differential of the NBB and NBO for the affected series just prior to the erroneous transaction was equal to or greater than the Minimum Amount set forth below and there was a bid/ask differential less than the Minimum Amount during the 10 seconds prior to the transaction. If there was no bid/ask differential less than the Minimum Amount during the 10 seconds prior to the transaction then the Theoretical Price of an option series is the last NBB or NBO just prior to the transaction in question, as set forth in paragraph (b) above.

Bid Price at Time of Trade	Minimum Amount
Below $2.00	$0.75
$2.00 to $5.00	$1.25
Above $5.00 to $10.00	$1.50
Above $10.00 to $20.00	$2.50
Above $20.00 to $50.00	$3.00
Above $50.00 to $100.00	$4.50
Above $100.00	$6.00

(c) **Obvious Errors.**

(1) **Definition.** For purposes of this Rule, an Obvious Error will be deemed to have occurred when the Exchange receives a properly submitted obvious or catastrophic error notification (as defined below) where the execution price of a transaction is higher or lower than the Theoretical Price for the series by an amount equal to at least the amount shown below:

Theoretical Price	Minimum Amount
Below $2.00	$0.25
$2.00 to $5.00	$0.40
Above $5.00 to $10.00	$0.50
Above $10.00 to $20.00	$0.80
Above $20.00 to $50.00	$1.00
Above $50.00 to $100.00	$1.50
Above $100.00	$2.00

(2) **Time Deadline.** A party that believes that it participated in a transaction that was the result of an Obvious Error must submit a notification to MIAX Emerald Regulatory Control ("MERC") (an "obvious error notification") in the manner specified from time to time by the Exchange in a circular distributed to Members. The obvious error notification must be received by MERC within the timeframes specified below:

(A) **Customer Orders.** For an execution of a Customer order, an obvious error notification must be received by MERC within thirty (30) minutes of the execution, subject to subparagraph (C) below; and

(B) **"Non-Customer" Orders.** For an execution of any order other than a Customer order, an obvious error notification must be received by MERC within fifteen (15) minutes of the execution, subject to subparagraph (C) below.

(C) **Linkage Trades.** Any other options exchange will have a total of forty-five (45) minutes for Customer orders and thirty (30) minutes for non-Customer orders, measured from the time of execution on the Exchange, to submit an obvious error notification to MERC for review of transactions routed to the Exchange from that options exchange and executed on the Exchange pursuant to the Options Order Protection and Locked/Crossed Market Plan ("Linkage Trades"). This includes obvious error notifications on behalf of another options exchange submitted by a third-party routing broker if such third-party broker identifies the affected transactions as Linkage Trades. In order to facilitate timely reviews of Linkage Trades the Exchange will accept obvious error notifications from either the other options exchange or, if applicable, the third-party routing broker that routed the affected order(s). The additional fifteen (15) minutes provided with respect to Linkage Trades shall only apply to the extent the options exchange that originally received and routed the order to the Exchange itself received a timely obvious error notification from the entering participant (i.e., within 30 minutes if a Customer order or 15 minutes if a non-Customer order).

(3) **Official Acting on Own Motion.** An Official may review a transaction believed to be erroneous on his/her own motion in the interest of maintaining a fair and orderly market and for the protection of investors. A

transaction reviewed pursuant to this paragraph may be nullified or adjusted only if it is determined by the Official that the transaction is erroneous in accordance with the provisions of this Rule, provided that the time deadlines of subparagraph (c)(2) above shall not apply. The Official shall act as soon as possible after becoming aware of the transaction, and ordinarily would be expected to act on the same day that the transaction occurred. In no event shall the Official act later than 8:30 a.m. Eastern Time on the next trading day following the date of the affected transaction. A party affected by a determination to nullify or adjust a transaction pursuant to this provision may appeal such determination in accordance with paragraph (l) below; however, a determination by an Official not to review a transaction or a determination not to nullify or adjust a transaction for which a review was conducted on an Official's own motion is not appealable. If a transaction is reviewed and a determination is rendered pursuant to another provision of this Rule, no additional relief may be granted under this provision.

(4) **Adjust or Bust.** If it is determined that an Obvious Error has occurred, the Exchange shall take one of the actions listed below. Upon taking final action, the Exchange shall promptly notify both parties to the trade electronically or via telephone.

(A) **Non-Customer Transactions**. Where neither party to the transaction is a Customer, the execution price of the transaction will be adjusted by the Official pursuant to the table below. Any non-Customer Obvious Error exceeding 50 contracts will be subject to the Size Adjustment Modifier defined in subparagraph (a)(4) above.

Theoretical Price (TP)	Buy Transaction Adjustment – TP Plus	Sell Transaction Adjustment – TP Minus
Below $3.00	$0.15	$0.15
At or above $3.00	$0.30	$0.30

(B) **Customer Transactions**. Where at least one party to the Obvious Error is a Customer, the trade will be nullified, subject to subparagraph (C) below.

(C) If any Member submits an obvious error notification pursuant to this rule, and in the aggregate that Member has 200 or more Customer transactions under review concurrently and the orders resulting in such transactions were submitted during the course of 2 minutes or less, where at least one party to the Obvious Error is a non-Customer, the Exchange will apply the non-Customer adjustment criteria set forth in subparagraph (A) above to such transactions.

(d) **Catastrophic Errors.**

(1) **Definition.** For purposes of this Rule, a Catastrophic Error will be deemed to have occurred when the execution price of a transaction is higher or lower than the Theoretical Price for the series by an amount equal to at least the amount shown below:

Theoretical Price	Minimum Amount
Below $2.00	$0.50
$2.00 to $5.00	$1.00
Above $5.00 to $10.00	$1.50
Above $10.00 to $20.00	$2.00
Above $20.00 to $50.00	$2.50
Above $50.00 to $100.00	$3.00
Above $100.00	$4.00

(2) **Time Deadline.** A party that believes that it participated in a transaction that was the result of a Catastrophic Error must submit a notification (a "catastrophic error notification") to MERC in the manner specified from time to time on the Exchange's website. Such catastrophic error notification must be received by MERC by

8:30 a.m. Eastern Time on the first trading day following the execution. For transactions in an expiring options series that take place on an expiration day, a party must submit a catastrophic error notification to MERC within 45 minutes after the close of trading that same day.

(3) **Adjust or Bust.** If it is determined that a Catastrophic Error has occurred, the Exchange shall take action as set forth below. Upon taking final action, the Exchange shall promptly notify both parties to the trade electronically or via telephone. In the event of a Catastrophic Error, the execution price of the affected transaction will be adjusted by the Official pursuant to the table below. Any Customer order subject to this subparagraph will be nullified if the adjustment would result in an execution price higher (for buy transactions) or lower (for sell transactions) than the Customer's limit price.

Theoretical Price (TP)	Buy Transaction Adjustment – TP Plus	Sell Transaction Adjustment – TP Minus
Below $2.00	$0.50	$0.50
$2.00 to $5.00	$1.00	$1.00
Above $5.00 to $10.00	$1.50	$1.50
Above $10.00 to $20.00	$2.00	$2.00
Above $20.00 to $50.00	$2.50	$2.50
Above $50.00 to $100.00	$3.00	$3.00
Above $100.00	$4.00	$4.00

(e) **Significant Market Events.**

(1) **Definition.** For purposes of this Rule, a Significant Market Event will be deemed to have occurred when: criterion (A) below is met or exceeded, or the sum of all applicable event statistics, where each is expressed as a percentage of the relevant threshold in criteria (A) through (D) below, is greater than or equal to 150% and 75% or more of at least one category is reached, provided that no single category can contribute more than 100% to the sum and any category contributing more than 100% will be rounded down to 100%. All criteria set forth below will be measured in aggregate across all exchanges.

(A) Transactions that are potentially erroneous would result in a total Worst-Case Adjustment Penalty of $30,000,000, where the Worst-Case Adjustment Penalty is computed as the sum across all potentially erroneous trades, of:

(i) $0.30 (i.e., the largest Transaction Adjustment value listed in subparagraph (e)(3)(A) below); times

(ii) the contract multiplier for each traded contract; times

(iii) the number of contracts for each trade; times

(iv) the appropriate Size Adjustment Modifier for each trade, if any, as defined in subparagraph (e)(3)(A) below.

(B) Transactions involving 500,000 options contracts are potentially erroneous;

(C) Transactions with a notional value (i.e., number of contracts traded multiplied by the option premium multiplied by the contract multiplier) of $100,000,000 are potentially erroneous;

(D) 10,000 transactions are potentially erroneous.

(2) **Coordination with Other Options Exchanges.** To ensure consistent application across options exchanges, in the event of a suspected Significant Market Event, the Exchange shall initiate a coordinated review of

potentially erroneous transactions with all other affected options exchanges to determine the full scope of the event. When this paragraph is invoked, the Exchange will promptly coordinate with the other options exchanges to determine the appropriate review period as well as select one or more specific points in time prior to the transactions in question and use one or more specific points in time to determine Theoretical Price. Other than the selected points in time, if applicable, the Exchange will determine Theoretical Price in accordance with paragraph (b) above.

(3) **Adjust or Bust.** If it is determined that a Significant Market Event has occurred then, using the parameters agreed as set forth in subparagraph (e)(2) above, if applicable, an Official will determine whether any or all transactions under review qualify as Obvious Errors. The Exchange shall take one of the actions listed below with respect to all transactions that qualify as Obvious Errors pursuant to subparagraph (c)(1) above. Upon taking final action, the Exchange shall promptly notify both parties to the trade electronically or via telephone.

(A) The execution price of each affected transaction will be adjusted by an Official to the price provided below unless both parties agree to adjust the transaction to a different price or agree to nullify the transaction. In the context of a Significant Market Event, any error exceeding 50 contracts will be subject to the Size Adjustment Modifier defined in subparagraph (a)(4) above.

Theoretical Price (TP)	Buy Transaction Adjustment – TP Plus	Sell Transaction Adjustment – TP Minus
Below $3.00	$0.15	$0.15
At or above $3.00	$0.30	$0.30

(B) Where at least one party to the transaction is a Customer, the trade will be nullified if the adjustment would result in an execution price higher (for buy transactions) or lower (for sell transactions) than the Customer's limit price.

(4) **Nullification of Transactions.** If the Exchange, in consultation with other options exchanges, determines that timely adjustment is not feasible due to the extraordinary nature of the situation, then the Exchange will nullify some or all transactions arising out of the Significant Market Event during the review period selected by the Exchange and other options exchanges consistent with this paragraph. To the extent the Exchange, in consultation with other options exchanges, determines to nullify less than all transactions arising out of the Significant Market Event, those transactions subject to nullification will be selected based upon objective criteria with a view toward maintaining a fair and orderly market and the protection of investors and the public interest.

(5) **Final Rulings.** With respect to rulings made pursuant to this paragraph, the number of affected transactions is such that immediate finality is necessary to maintain a fair and orderly market and to protect investors and the public interest. Accordingly, rulings by the Exchange pursuant to this paragraph are non-appealable.

(f) **Trading Halts.** The Exchange shall nullify any transaction that occurs during a trading halt in the affected option on the Exchange or, respecting equity options (including options overlying ETFs), when the trade occurred during a regulatory halt as declared by the primary market for the underlying security pursuant to Exchange Rule 504.

(g) **Erroneous Print in Underlying.** A trade resulting from an erroneous print(s) disseminated by the underlying market that is later nullified by that underlying market shall be adjusted or nullified as set forth in subparagraph (c)(4) of this Rule, provided a party submits an obvious or catastrophic error notification to MERC in a timely manner as set forth below. For purposes of this paragraph, a trade resulting from an erroneous print(s) shall mean any options trade executed during a period of time for which one or more executions in the underlying security are nullified, and for one second thereafter. If a party believes that it participated in an erroneous transaction resulting from an erroneous print(s) pursuant to this paragraph it must submit an obvious error notification to MERC within the timeframes set forth in subparagraph (c)(2) above, with the allowed notification timeframe commencing at the time of notification by the underlying market(s) of nullification of transactions in the underlying security. If multiple underlying markets nullify trades in the underlying security, the allowed notification timeframe will commence at the time of the first market's notification.

(h) **Erroneous Quote in Underlying.** A trade resulting from an erroneous quote(s) in the underlying security shall be adjusted or nullified as set forth in subparagraph (c)(4) of this Rule, provided a party submits an obvious or catastrophic error notification to MERC in a timely manner as set forth below. An erroneous quote occurs when the underlying security has a bid/ask differential of at least $1.00 and has a bid/ask differential at least five times greater than the average bid/ask differential for such underlying security during the time period encompassing two minutes before and after the dissemination of such quote. For purposes of this paragraph, the average bid/ask differential shall be determined by adding the bid/ask differentials of sample quotes at regular 15-second intervals during the four-minute time period referenced above (excluding the quote(s) in question) and dividing by the number of quotes during such time period (excluding the quote(s) in question). If a party believes that it participated in an erroneous transaction resulting from an erroneous quote(s) pursuant to this paragraph it must notify MERC in accordance with subparagraph (c)(2) above.

(i) **Stop (and Stop-Limit) Order Trades Elected by Erroneous Trades.** Transactions resulting from the election of a stop or stop-limit order by an erroneous trade in an option contract shall be nullified by the Exchange, provided a party submits an obvious or catastrophic error notification to MERC within the timeframes required by this Rule. If a party believes that it participated in an erroneous transaction pursuant to this paragraph it must submit an obvious or catastrophic error notification to MERC within the timeframes set forth in subparagraph (c)(2) above. The notification timeframe will commence at the time of the Exchange's receipt of notification of the nullification of transaction(s) that elected the stop or stop-limit order.

(j) **Linkage Trades.** If the Exchange routes an order pursuant to the Options Order Protection and Locked/Crossed Market Plan (as defined in Exchange Rule 1400(n)) that results in a Linkage Trade on another options exchange and such options exchange subsequently nullifies or adjusts the Linkage Trade pursuant to its rules, the Exchange will perform all actions necessary to complete the nullification or adjustment of the Linkage Trade.

(k) **Verifiable Disruptions or Malfunctions of Exchange Systems**. Absent mutual agreement, parties to a trade may have a trade nullified or its price adjusted if any such party makes a documented request within the time specified in subparagraph (c)(2) above, and one of the conditions below is met:

(1) The trade resulted from a verifiable disruption or malfunction of an Exchange execution, dissemination, or communication system that caused a quote/order to trade in excess of its disseminated size (e.g. a quote/order that is frozen, because of an Exchange System error, and repeatedly traded) in which case trades in excess of the disseminated size may be nullified; or

(2) The trade resulted from a verifiable disruption or malfunction of an Exchange dissemination or communication system that prevented a Member from updating or canceling a quote/order for which the Member is responsible where there is Exchange documentation providing that the Member sought to update or cancel the quote/order.

(l) **Appeal.** If an affected party appeals an Official decision under this Rule (an "appeal") within the time permitted, the Chief Regulatory Officer ("CRO") or his/her designee will review such decision. An appeal under this Rule must be submitted in writing via email or other electronic means (as specified from time to time by the Exchange via Regulatory Circular) within thirty minutes after a party receives official notification of a final determination made by an Official under this Rule. The CRO or his/her designee shall review the facts and render a decision as soon as practicable, but generally on the same trading day as the execution(s) under review. Decisions respecting appeals that are received after 3:00 p.m. Eastern Time will be rendered as soon as practicable, but in no event later than the trading day following the date of the execution under review.

(1) **Absence of the CRO**. In the absence of the CRO, a designee of the CRO will be appointed to act in this capacity.

(2) **Appeal Fee**. A Member that submits an appeal seeking the review of an Official ruling shall be assessed a fee of $500.00 for each Official ruling to be reviewed that is sustained and not overturned or modified by the CRO or his/her designee. In addition, in instances where the Exchange, on behalf of a Member, requests a determination

by another market center that a transaction is clearly erroneous, the Exchange will pass any resulting charges through to the relevant Member.

(3) **Authority of the CRO**. Decisions of the CRO or his/her designee concerning

(i) the review on appeal of Official rulings relating to the nullification or adjustment of transactions, and

(ii) initial requests for relief,

shall be final and may not be appealed to the Exchange's Board.

(4) Any determination by an Officer or by the CRO or his/her designee shall be rendered without prejudice as to the rights of the parties to the transaction to submit their dispute to arbitration.

(5) **[Reserved]**

Interpretations and Policies:

.01 **Limit Up-Limit Down State**. During a pilot period that expires at the close of business on October 18, 2019, an execution will not be subject to review as an Obvious Error or Catastrophic Error pursuant to paragraph (c) or (d) of this Rule if it occurred while the underlying security was in a "Limit State" or "Straddle State," as defined in the Regulation NMS Plan to Address Extraordinary Market Volatility (the "Limit Up-Limit Down Plan" or the "Plan". Nothing in this provision shall prevent such execution from being reviewed on an Official's own motion pursuant to subparagraph (c)(3) of this Rule, or a bust or adjust pursuant to paragraphs (e) through (k) of this Rule.

.02 For purposes of this Rule, to the extent the provisions of this Rule would result in the Exchange applying an adjustment of an erroneous sell transaction to a price lower than the execution price or an erroneous buy transaction to a price higher than the execution price, the Exchange will not adjust or nullify the transaction, but rather, the execution price will stand.

.03 **Complex Orders.**

(a) If a Complex order executes against individual legs and at least one of the legs qualifies as an Obvious Error under paragraph (c)(1) or a Catastrophic Error under paragraph (d)(1), then the leg(s) that is an Obvious or Catastrophic Error will be adjusted in accordance with paragraphs (c)(4)(A) or (d)(3), respectively, regardless of whether one of the parties is a Customer. However, any Customer order subject to this paragraph (a) will be nullified if the adjustment would result in an execution price higher (for buy transactions) or lower (for sell transactions) than the Customer's limit price on the Complex order or individual leg(s). If any leg of a Complex order is nullified, the entire transaction is nullified.

(b) If a Complex order executes against another Complex order and at least one of the legs qualifies as an Obvious Error under paragraph (c)(1) or a Catastrophic Error under paragraph (d)(1), then the leg(s) that is an Obvious or Catastrophic Error will be adjusted or busted in accordance with paragraph (c)(4) or (d)(3), respectively, so long as either: (i) the width of the National Spread Market for the Complex order strategy just prior to the erroneous transaction was equal to or greater than the amount set forth in the wide quote table of paragraph (b)(3), or (ii) the net execution price of the Complex order is higher (lower) than the offer (bid) of the National Spread Market for the Complex order strategy just prior to the erroneous transaction by an amount equal to at least the amount shown in the table in paragraph (c)(1). If any leg of a Complex order is nullified, the entire transaction is nullified. For purposes of this Rule 521, the National Spread Market for a Complex order strategy is determined by the National Best Bid/Offer of the individual legs of the strategy.

(c) **[Reserved]**

.04 **Exchange Determining Theoretical Price**. For purposes of this Rule, when the Exchange must determine Theoretical Price pursuant to subparagraphs (b)(1)-(3) of this Rule (i.e., at the open, when there are no valid quotes or when there is a wide quote), then the Exchange will determine Theoretical Price as follows.

(a) The Exchange will request Theoretical Price from the third party vendor defined in paragraph (d) below ("TP Provider") to which the Exchange and all other options exchanges have subscribed. The Exchange will apply the Theoretical Price provided by the TP Provider, except as otherwise described below.

(b) To the extent an Official of the Exchange believes that the Theoretical Price provided by the TP Provider is fundamentally incorrect and cannot be used consistent with the maintenance of a fair and orderly market, the Official shall contact the TP Provider to notify the TP Provider of the reason the Official believes such Theoretical Price is inaccurate and to request a review and correction of the calculated Theoretical Price. The Exchange shall also promptly provide electronic notice to other options exchanges that the TP Provider has been contacted consistent with this paragraph and include a brief explanation of the reason for the request.

(c) An Official of the Exchange may determine the Theoretical Price if the TP Provider has experienced a systems issue that has rendered its services unavailable to accurately calculate Theoretical Price and such issue cannot be corrected in a timely manner.

(d) The current TP Provider to which the Exchange and all other options exchanges have subscribed is: CBOE Livevol, LLC. Neither the Exchange, the TP Provider, nor any affiliate of the TP Provider (the TP Provider and its affiliates are referred to collectively as the "TP Provider"), makes any warranty, express or implied, as to the results to be obtained by any person or entity from the use of the TP Provider pursuant to this Interpretation .04. The TP Provider does not guarantee the accuracy or completeness of the calculated Theoretical Price. The TP Provider disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to such Theoretical Price. Neither the Exchange nor the TP Provider shall have any liability for any damages, claims, losses (including any indirect or consequential losses), expenses, or delays, whether direct or indirect, foreseen or unforeseen, suffered by any person arising out of any circumstance or occurrence relating to the use of such Theoretical Price or arising out of any errors or delays in calculating such Theoretical Price.

[Adopted: December 20, 2018; amended April 5, 2019 (SR-EMERALD-2019-17)]

Rule 522. Price Binding Despite Erroneous Report

The price at which an order is executed shall be binding notwithstanding that an erroneous report in respect thereto may have been rendered, or no report rendered. A report shall not be binding if an order was not actually executed but was reported to have been executed.

[Adopted: December 20, 2018]

Rule 523. Authority to Take Action Under Emergency Conditions

(a) The Chairman of the Board, the President or such other person or persons as may be designated by the Board shall have the power to halt or suspend trading in some or all securities traded on the Exchange, to close some or all Exchange facilities, to determine the duration of any such halt, suspension or closing, to take one or more of the actions permitted to be taken by any person or body of the Exchange under Exchange Rules, or to take any other action deemed to be necessary or appropriate for the maintenance of a fair and orderly market or the protection of investors, or otherwise in the public interest, due to emergency conditions or extraordinary circumstances, such as (1) actual or threatened physical danger, severe climatic conditions, natural disaster, civil unrest, terrorism, acts of war, or loss or interruption of facilities utilized by the Exchange, or (2) a request by a governmental agency or official, or (3) a period of mourning or recognition for a person or event.

(b) The person taking the action shall notify the Board of actions taken pursuant to this Rule, except for a period of mourning or recognition for a person or event, as soon thereafter as is feasible.

[Adopted: December 20, 2018]

Rule 524. Reporting of Matched Trades to Clearing Corporation

On each business day at or prior to such time as may be prescribed by the Clearing Corporation, the Exchange shall furnish the Clearing Corporation a report of each Clearing Member's matched trades based on the trade information filed with the Exchange on that day. Only trades which have been matched in accordance with the provisions of these Rules shall be furnished by the Exchange to the Clearing Corporation, and the Exchange shall assume no responsibility with respect to any unmatched trade or for any delays or errors in the reporting to it of trade information. The Exchange may delegate its responsibility in respect of trade matching to the Clearing Corporation or other facility, in which case Clearing Members shall abide by the procedures established by the Clearing Corporation or other facility in the filing of trade information, the reconciliation of unmatched trades, and other actions pertinent to trade comparison.

Interpretations and Policies:

.01 Post-trade adjustments that do not affect the contractual terms of a trade are to be performed by the Member via an Exchange approved electronic interface communicated to Members via Regulatory Circular.

[Adopted: December 20, 2018]

Rule 525. Limitation on Dealings

No Member shall bid, offer, purchase or write (sell) on the Exchange any security other than an option contract that is currently open for trading in accordance with the provisions of Chapter IV.

[Adopted: December 20, 2018]

Rule 526. Limitation on the Liability of Index Licensors for Options on Exchange-Traded Fund Shares

(a) The term "index licensor" as used in this Rule refers to any entity that grants the Exchange a license to use one or more indexes or portfolios in connection with the trading of options on Exchange-Traded Fund Shares (as defined in Rule 402(i)).

(b) No index licensor with respect to any index or portfolio underlying an option on Exchange-Traded Fund Shares traded on the Exchange makes any warranty, express or implied, as to the results to be obtained by any person or entity from the use of such index or portfolio, any opening, intra-day or closing value therefor, or any data included therein or relating thereto, in connection with the trading of any option contract on Exchange-Traded Fund Shares based thereon or for any other purpose. The index licensor shall obtain information for inclusion in, or for use in the calculation of, such index or portfolio from sources it believes to be reliable, but the index licensor does not guarantee the accuracy or completeness of such index or portfolio, any opening, intra-day or closing value therefor, or any data included therein or related thereto. The index licensor hereby disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to any such index or portfolio, any opening, intra-day or closing value therefor, any data included therein or relating thereto, or any option contract on Exchange-Traded Fund Shares based thereon. The index licensor shall have no liability for any damages, claims, losses (including any indirect or consequential losses), expenses or delays, whether direct or indirect, foreseen or unforeseen, suffered by any person arising out of any circumstance or occurrence relating to the person's use of such index or portfolio, any opening, intra-day or closing value therefor, any data included therein or relating thereto, or any option contract on Exchange-

Traded Fund Shares based thereon, or arising out of any errors or delays in calculating or disseminating such index or portfolio.

[Adopted: December 20, 2018]

Rule 527. Exchange Liability

(a) Except to the extent provided in paragraph (b) of this Rule, and except as otherwise expressly provided in the Rules, neither the Exchange nor its directors, officers, committee members, limited liability company members, employees or agents shall be liable to Members or to persons associated therewith for any loss, expense, damages or claims that arise out of the use or enjoyment of the facilities or services afforded by the Exchange, any interruption in or failure or unavailability of any such facilities or services, or any action taken or omitted to be taken in respect to the business of the Exchange except to the extent such loss, expense, damages or claims are attributable to the willful misconduct, gross negligence, bad faith or fraudulent or criminal acts of the Exchange or its officers, employees or agents acting within the scope of their authority. Without limiting the generality of the foregoing and subject to the same exception, the Exchange shall have no liability to any person for any loss, expense, damages or claims that result from any error, omission or delay in calculating or disseminating any current or closing index value, any current or closing value of interest rate options, or any reports of transactions in or quotations for options or other securities, including underlying securities. The Exchange makes no warranty, express or implied, as to results to be obtained by any person or entity from the use of any data transmitted or disseminated by or on behalf of the Exchange or any reporting authority designated by the Exchange, including but not limited to reports of transactions in or quotations for securities traded on the Exchange or underlying securities, or reports of interest rate measures or index values or related data, and the Exchange makes no express or implied warranties of merchantability or fitness for a particular purpose or use with respect to any such data. The foregoing limitations of liability and disclaimers shall be in addition to, and not in limitation of, the provisions of the Exchange's By-Laws. Without limiting the generality of the foregoing, the Exchange shall have no liability to any person for any loss, expense, damages or claims that result from any error, omission or delay in calculating or disseminating any current or closing index value or any reports of transactions in or quotations for options or other securities, including underlying securities.

(b) Whenever custody of an unexecuted order or quote is transmitted by a Member to or through the Exchange's System or to any other automated facility of the Exchange whereby the Exchange assumes responsibility for the transmission or execution of the order or quote, provided that the Exchange has acknowledged receipt of such order or quote, the Exchange's liability for the negligent acts or omissions of its employees or for the failure of its systems or facilities shall not exceed the limits provided in this paragraph (b), and no assets of the Exchange shall be applied or shall be subject to such liability in excess of the following limits:

(1) As to any one or more claims made by a single Member growing out of the use or enjoyment of the facilities afforded by the Exchange on a single trading day, the Exchange shall not be liable in excess of the larger of $100,000 or the amount of any recovery obtained by the Exchange under any applicable insurance maintained by the Exchange;

(2) As to the aggregate of all claims made by all Members growing out of the use or enjoyment of the facilities afforded by the Exchange on a single trading day, the Exchange shall not be liable in excess of the larger of $250,000 or the amount of the recovery obtained by the Exchange under any applicable insurance maintained by the Exchange;

(3) As to the aggregate of all claims made by all Members growing out of the use or enjoyment of the facilities afforded by the Exchange during a single calendar month, the Exchange shall not be liable in excess of the larger of $500,000 or the amount of the recovery obtained by the Exchange under any applicable insurance maintained by the Exchange.

(c) If all of the claims arising out of the use or enjoyment of the facilities afforded by the Exchange cannot be fully satisfied because in the aggregate they exceed the applicable maximum amount of liability provided for in paragraph (b) above, then such maximum amount shall be allocated among all such claims arising on a single trading day or during a single calendar month, as applicable, written notice of which has been given to the Exchange no later than

the opening of trading on the next business day following the day on which the use or enjoyment of Exchange facilities giving rise to the claim occurred, based upon the proportion that each such claim bears to the sum of all such claims.

[Adopted: December 20, 2018]

Rule 528. Legal Proceedings Against the Exchange and its Directors, Officers, Employees, Contractors or Agents

No Member or person associated with a Member shall institute a lawsuit or other legal proceeding against the Exchange or any director, officer, limited liability company member, employee, contractor, agent or other official of the Exchange or any subsidiary of the Exchange, for actions taken or omitted to be taken in connection with the official business of the Exchange or any subsidiary, except to the extent such actions or omissions constitute violations of the federal securities laws for which a private right of action exists. This provision shall not apply to appeals of disciplinary actions or other actions by the Exchange as provided for in the Rules.

[Adopted: December 20, 2018]

Rule 529. Order Routing to Other Exchanges

The Exchange may automatically route orders to other exchanges under certain circumstances as described below and elsewhere in these Rules ("Routing Services"). In connection with such services, the following shall apply:

(a) Routing Services will be provided in conjunction with one or more routing brokers that are not affiliated with the Exchange. For each routing broker used by the Exchange, an agreement will be in place between the Exchange and the routing broker that will, among other things, restrict the use of any confidential and proprietary information that the routing broker receives to legitimate business purposes necessary for routing orders at the direction of the Exchange.

(1) The Exchange shall establish and maintain procedures and internal controls reasonably designed to adequately restrict the flow of confidential and proprietary information between the Exchange and the routing broker, and any other entity, including any affiliate of the routing broker, and, if the routing broker or any of its affiliates engages in any other business activities other than providing routing services to the Exchange, between the segment of the routing broker or affiliate that provides the other business activities and the segment of the routing broker that provides the Routing Services.

(2) The Exchange may not use a routing broker for which the Exchange or any affiliate of the Exchange is the designated examining authority.

(3) The Exchange will provide its Routing Services in compliance with the provisions of the Exchange Act and the rules thereunder, including, but not limited to, the requirements in Section 6(b)(4) and (5) of the Exchange Act that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees and other charges among its Members and other persons using its facilities, and not be designed to permit unfair discrimination between customers, issuers, brokers or dealers.

(4) For all Routing Services, the Exchange will determine the logic that provides when, how, and where orders are routed away to other exchanges.

(5) The routing broker will receive routing instructions from the Exchange, to route orders to other exchanges and report such executions back to the Exchange. The routing broker cannot change the terms of an order or the routing instructions, nor does the routing broker have any discretion about where to route an order.

(6) Any bid or offer entered on the Exchange routed to another exchange through a routing broker that results in an execution shall be binding on the Member that entered such bid/offer.

(b) **Route Mechanism.**

(1) **General**. The Route Mechanism described in this Section (b) will be used after the Exchange's Opening Process under Rule 503 has been completed. Routing will be used when an Eligible Order is received and/or reevaluated that is both routable and marketable against the opposite side ABBO upon receipt and the Exchange's disseminated market is not equal to the opposite side ABBO, or is equal to the opposite side ABBO and of insufficient size to satisfy the order. The term Eligible Order will be used in the following paragraphs to refer to the Eligible Order being handled by the Route Mechanism. Eligible Orders are defined as: all Public Customer Orders received via the FIX Interface other than Intermarket Sweep Orders ("ISO"), as defined in Rule 516(f), Do Not Route ("DNR") Orders as defined in Rule 516(g) and Post-Only Orders as defined in Rule 516(j), all of which are not eligible to be routed. Eligible Orders resting on the Book may be routed with an incoming Eligible Order that has initiated a Route Mechanism.

(2) **Routing Mechanism**.

(i) An Eligible Order may be routed if the displayed NBBO was locked or crossed upon receipt of the Eligible Order. If at the time of receipt of the Eligible Order, the opposite side ABBO is also locking or crossing the same side EBBO, the System will immediately route the Eligible Order, together with any routable interest resting on the same side EBBO, to the opposite side ABBO. The Eligible Order and any routable resting interest will be processed in the order in which they were received.

(ii) The System will route ISOs representing Eligible Orders to away markets disseminating prices better than the Exchange's disseminated market. The routed order will be priced at the ABBO with a size equal to each ABBO exchange's disseminated size. If there are still additional contracts to be executed from the Eligible Order after the order has been routed to all away markets disseminating the ABBO for the away markets' full size, the System will handle remaining contracts from the Eligible Order in accordance with the provisions of Exchange Rule 515.

[Adopted: December 20, 2018]

Rule 530. Limit Up-Limit Down

Paragraphs (a)-(j) of this Rule shall be in effect during a pilot period that expires at the close of business on October 18, 2019. The Exchange will provide the Commission with data and analysis during the duration of this pilot as requested. This Rule establishes procedures to address extraordinary volatility in NMS Stocks (as defined below) and outlines MIAX Emerald's Limit Up-Limit Down processing.

(a) **Definitions**. The capitalized terms in this Rule 530(a) and throughout the MIAX Emerald rules shall have the same meaning as provided for in the Plan.

"**Eligible Reported Transactions**" shall have the meaning prescribed by the Operating Committee of the Plan (as defined below) and shall generally mean transactions that are eligible to update the last sale price of an NMS Stock.

"**Limit State**" shall have the meaning provided in Section VI of the Plan. When a National Best Bid is below the Lower Price Band calculated by the Processor (as defined below) for an NMS Stock or a National Best Offer is above the Upper Price Band calculated by the Processor for an NMS Stock, the Processor will disseminate such National Best Bid or National Best Offer with an appropriate flag identifying it as non-executable. When a National Best Offer is equal to the Lower Price Band or a National Best Bid is equal to the Upper Price Band for an NMS Stock, the Processor will distribute such National Best Bid or National Best Offer with an appropriate flag identifying it as a "Limit State Quotation."

"**LULD Functionality**" shall mean the specific processing logic applied by the Exchange System to options traded on the Exchange when the underlying NMS Stock has entered into a Limit State or Straddle State. LULD Functionality remains in effect for the duration that the underlying NMS Stock is in a Limit State or a Straddle State.

"**Market Data Plan**" shall mean the effective national market system plans through which the Participants act jointly to disseminate consolidated information in compliance with Rule 603(b) of Regulation NMS under the Exchange Act.

"**Plan**" shall mean the Plan to Address Extraordinary Market Volatility Submitted to the SEC pursuant to Rule 608 of Regulation NMS under the Exchange Act, as amended from time to time in accordance with its provisions.

"**Primary Listing Exchange**" shall mean the Participant on which an NMS Stock is listed. If an NMS Stock is listed on more than one Participant, the Participant on which the NMS Stock has been listed the longest shall be the Primary Listing Exchange.

"**Processor**" shall mean the single plan processor responsible for the consolidation of information for an NMS Stock pursuant to Rule 603(b) of Regulation NMS under the Exchange Act.

"**Participant**" shall mean a party to the Plan.

"**Regular Trading Hours**" shall have the meaning provided in Rule 600(b)(64) of Regulation NMS under the Exchange Act. For purposes of the Plan, Regular Trading Hours can end earlier than 4:00 p.m. Eastern Time in the case of an early scheduled close.

"**Regulatory Halt**" shall have the meaning specified in the Market Data Plans.

"**Straddle State**" shall have the meaning provided in Section VII(A)(2) of the Plan. An NMS Stock is in a Straddle State when the National Best Bid (Offer) is below (above) the Lower (Upper) Price Band and the NMS Stock is not in a Limit State, and trading in that NMS Stock deviates from normal trading characteristics such that declaring a Trading Pause would support the Plan's goal to address extraordinary market volatility.

"**Trading Pause**" shall have the meaning provided in Section VII of the Plan. If trading for an NMS Stock does not exit a Limit State within 15 seconds of entry during Regular Trading Hours, then the Primary Listing Exchange will declare a Trading Pause for such NMS Stock and shall notify the Processor. The Primary Listing Exchange may also declare a Trading Pause for an NMS Stock when an NMS Stock is in a Straddle State.

(b) **General.** LULD Functionality becomes effective for an option traded on the Exchange when the underlying NMS Stock has entered into a Limit State or Straddle State. LULD Functionality remains in effect for the duration that the underlying NMS Stock is in a Limit State or a Straddle State. LULD Functionality modifies the normal operation of the Exchange System in ways identified by this Rule. LULD Functionality ends when the underlying NMS Stock is no longer in a Limit State or a Straddle State, or when a Trading Pause is declared by the Primary Listing Exchange.

(c) **Determining Straddle States and Limit States.** The Exchange shall use the SIP feed (CQS for Tape A and Tape B securities and UQDF for Tape C securities) to determine when an NMS Stock is in a Limit State or a Straddle State, and when such Limit State or Straddle State no longer exists.

(d) **Handling of Orders During Limit States and Straddle States.** Once an NMS Stock has entered either a Straddle State or Limit State:

(1) The Exchange will not open an affected option.

(2) After the opening, the Exchange will:

(i) reject all incoming market orders submitted into the Exchange System.

(ii) cancel all unexecuted market orders existing within the Exchange System, except that market orders to sell an option received when the national best bid is zero and the Exchange's disseminated offer is equal to

or less than $0.10 that have been converted to limit orders to sell pursuant to Rule 519(a)(1) will not be cancelled by the Exchange's System.

(e) **Market-Wide Trading Halts.** The Exchange shall halt trading in all options whenever the equities markets initiate a market-wide trading halt commonly known as a circuit breaker in response to extraordinary market conditions.

(f) **Quoting Obligations During Limit States and Straddle States**

(1) Once an NMS Stock has entered either a Limit or Straddle State, the Exchange shall relieve Exchange Market Makers from the following quotation obligations for options on the affected underlying NMS Stock:

(i) the bid/ask differential requirements set forth in Exchange Rule 603(b)(4);

(ii) the minimum size requirement set forth in Exchange Rule 604(b)(2);

(iii) the requirement to submit two-sided quotes set forth in Exchange Rule 604(c); and

(iv) the continuous quoting obligation set forth in Exchange Rule 604(e).

(2) The relief described in subparagraphs (f)(1)(i)-(iv) above shall terminate when the Limit or Straddle State no longer exists in the affected NMS Stock.

(3) The provisions of Exchange Rule 514 concerning priority of quotes and orders shall remain unchanged during periods of relief from quoting obligations pursuant to this Rule 530(f).

(g) **Systemic Changes During Limit States and Straddle States.** Once an NMS Stock has entered a Limit or Straddle State, the Exchange shall apply the following LULD Functionality for options on the affected underlying NMS Stock:

(1) **Opening Process.**

(i) The Exchange's Opening Process (as described in Rule 503) shall be delayed for options overlying an NMS Stock that is in a Limit or Straddle State prior to the opening of trading such overlying options. The Opening Process shall begin in the affected overlying options when such Limit or Straddle State has ended and there is not a halt or Trading Pause in effect.

(ii) Respecting options that are engaged in the Opening Process but for which trading has not begun, the Opening Process shall be terminated when the underlying NMS Stock is in a Limit or Straddle State. The Opening Process shall begin anew in the affected overlying options when such Limit or Straddle State has ended and there is not a halt or Trading Pause in effect.

(2) **Priority Quotes.**

(i) Notwithstanding the provisions of Exchange Rule 517(b), all quotes that result in an execution during a period in which LULD Functionality is engaged shall be deemed to be priority quotes for allocation purposes.

(ii) For executions occurring when LULD Functionality is not engaged, the priority status of a quote for allocation purposes shall be determined by the provisions of Rule 517(b).

(h) **Trading Pauses.** When an underlying NMS Stock is subject to a Trading Pause, the Exchange System will halt trading in options overlying the affected NMS Stock pursuant to Rule 504(c).

(i) **Opening after a Trading Pause.** After a Trading Pause, the Exchange System will open trading in the affected option pursuant to Rule 503. If trading has not resumed on the Primary Listing Exchange for the affected NMS Stock within ten minutes of receipt of the Trading Pause message by the Exchange, the Exchange may resume trading in options overlying such NMS Stock if at least one exchange has resumed trading in such NMS Stock.

(j) **Review of Erroneous Transactions Occurring During Limit States and Straddle States.** Once an NMS Stock has entered a Limit or Straddle State, the Exchange shall nullify a transaction in an option overlying such an NMS Stock as provided in this Rule.

(1) Absent Mutual Agreement as provided in paragraph (j)(2)(iii) below, parties to a trade may have a trade nullified if:

(i) any such party makes a documented request within the time specified in Rule 530(j)(2)(i)(A); and

(ii) one of the conditions below is met:

(A) The trade resulted from a verifiable disruption or malfunction of an Exchange execution, dissemination, or communication system that caused a quote/order to trade in excess of its disseminated size (e.g. a quote/order that is frozen, because of an Exchange System error, and repeatedly traded) in which case trades in excess of the disseminated size may be nullified; or

(B) The trade resulted from a verifiable disruption or malfunction of an Exchange dissemination or communication system that prevented a Member from updating or canceling a quote/order for which the Member is responsible where there is Exchange documentation providing that the Member sought to update or cancel the quote/order; or

(C) The trade resulted from an erroneous print disseminated by the underlying market which is later cancelled or corrected by the underlying market where such erroneous print resulted in a trade higher or lower than the average trade in the underlying security during the time period encompassing two minutes before and after the erroneous print, by an amount at least five times greater than the average quote width for such underlying security during the time period encompassing two minutes before and after the erroneous print. For purposes of this Rule, the average trade in the underlying security shall be determined by adding the prices of each trade during the four minute time period referenced above (excluding the trade in question) and dividing by the number of trades during such time period (excluding the trade in question); or

(D) The trade resulted from an erroneous quote in the primary market for the underlying security that has a width of at least $1.00 and that width is at least five times greater than the average quote width for such underlying security during the time period encompassing two minutes before and after the dissemination of such quote. For the purposes of this Rule, the average quote width shall be determined by adding the quote widths of sample quotations at regular 15-second intervals during the four minute time period referenced above (excluding the quote in question) and dividing by the number of quotes during such time period (excluding the quote in question);

(iii) **Mutual Agreement**. The determination as to whether a trade was automatically executed at an erroneous price may be made by mutual agreement of the affected parties to a particular transaction within the time periods specified in subparagraphs (j)(2)(i) or (j)(3) below. A trade may be nullified on the terms that all parties to a particular transaction agree. In the absence of mutual agreement by the parties, a particular trade may only be nullified as provided in this Rule.

(iv) **Trading Halts**. Trades on the Exchange will be nullified when:

(A) The trade occurred during a trading halt in the affected option on the Exchange; or

(B) Respecting equity options (including options overlying ETFs), the trade occurred during a trading halt on the primary market for the underlying security.

(v) **Transactions During Opening Purchase Prohibitions or Restrictions.** Trades on the Exchange will be nullified when such a trade represents an opening transaction prohibited pursuant to Rule 403.

(2) **Review Procedure**. MIAX Emerald Regulatory Control ("MERC") shall administer the application of this Rule as follows:

(i) (A) **Notification**. If a Market Maker on the Exchange believes that he/she participated in a transaction that can be nullified pursuant to section (j) of this Rule, he/she must notify MERC within fifteen minutes of the transaction. If a Member that initiated the order believes a transaction on the Exchange can be nullified pursuant to section (j) of this Rule, such Member must notify MERC within twenty minutes of the execution. Absent unusual circumstances, MERC will not grant relief under this Rule unless notification is made within the prescribed time period. Notwithstanding the foregoing, respecting transactions that occur as part of the Exchange's automated Opening Process, after the twenty minute notification period as described above and until 4:30 p.m. Eastern Time on the subject trade date, where parties to the transaction are a non-broker-dealer customer and an Exchange Market Maker, the non-broker-dealer customer may request review of the subject transaction, and the transaction will nullified by an Exchange Official.

(B) **Procedures for Reviewing Trades on Exchange Motion**. In the interest of maintaining a fair and orderly market for the protection of investors, the Chief Regulatory Officer or designee thereof, who is an officer of the Exchange (collectively "Exchange Officer") may, on his or her own motion or upon request, determine to review any transaction occurring on the Exchange that is believed to be erroneous. A transaction reviewed pursuant to this provision may be nullified in accordance with section (j) of this Rule. The Exchange Officer may be assisted by an Exchange Official in reviewing a transaction.

The Exchange Officer shall act as soon as possible after receiving notification of the transaction, and ordinarily would be expected to act on the same day as the transaction occurred. In no event shall the Exchange Officer act later than 9:30 a.m. Eastern Time on the next trading day following the date of the transaction in question. A party affected by a determination to nullify a transaction pursuant to this provision may appeal such determination in accordance with Rule 530; however, a determination by an Exchange Officer not to review a transaction, or a determination not to nullify a transaction for which a review was requested or conducted, is not appealable. If a transaction is reviewed and a determination is rendered pursuant to another provision of Rule 530, no additional relief may be granted under this provision.

(ii) **Bust**. An Exchange Official will determine whether there is a trade that qualifies to be nullified as defined in this Rule.

(3) **Request for Review**. If a party affected by a determination made under this Rule so requests within the time permitted, the CRO will review decisions made under this Rule. A request for review under this paragraph must be made within thirty minutes after a party receives official notification of a final determination by the Exchange Official under this Rule, except that if such notification is made after 3:30 p.m. Eastern Time, either party has until 9:30 a.m. Eastern Time on the next trading day to request a review. Such a request for review must be in writing or otherwise documented. The CRO shall review the facts and render a decision on the day of the transaction, or the next trade day in the case where a request is properly made after 3:30 p.m. on the day of the transaction or where the request is properly made the next trade day.

(i) **Absence of the CRO**. In the absence of the CRO, the deputy CRO or designee of the CRO will be appointed to act in this capacity.

(ii) **Appeal Fee**. A Member seeking the CRO's review of an Exchange Official ruling shall be assessed a fee of $250.00 for each Exchange Official ruling to be reviewed that is sustained and not overturned or modified by the CRO.

(iii) **Authority of the CRO**. Decisions of the CRO concerning (i) the review of Exchange Official rulings relating to the nullification of transactions, and (ii) initial requests for relief shall be final and may not be appealed to the Exchange's Board.

[Adopted: December 20, 2018; amended April 5, 2019 (SR-EMERALD-2019-17)]

Rule 531. [Reserved]

CHAPTER VI. MARKET MAKERS

Rule 600. Registration of Market Makers

(a) A Market Maker is a Member with Registered Options Traders registered pursuant to Rule 601. Market Makers are registered with the Exchange for the purpose of making transactions as dealer-specialist in accordance with the provisions of this Chapter. Members registered as Market Makers have certain rights and bear certain responsibilities beyond those of other Members. All Market Makers are designated as specialists on the Exchange for all purposes under the Exchange Act and the rules and regulations thereunder.

(b) To register as a Lead Market Maker or as a Registered Market Maker, a Member shall file an application in writing on such forms as the Exchange may prescribe. Applications shall be reviewed by the Exchange, which shall consider an applicant's market making ability and such other factors as the Exchange deems appropriate. After reviewing the application, the Exchange shall either approve or disapprove the applicant's registration as a Lead Market Maker or as a Registered Market Maker. Once approved, a Lead Market Maker may apply to the Exchange to be considered for appointment as a Primary Lead Market Maker in one or more option classes traded on the Exchange. The appointment of a Primary Lead Market Maker shall be in accordance with Rule 602.

(c) The registration of any Member as a Lead Market Maker, Primary Lead Market Maker, or as a Registered Market Maker may be suspended or terminated by the Exchange upon a determination that such Member has failed to properly perform as a Market Maker.

(d) These Rules place no limit on the number of qualifying entities that may become Market Makers. However, based on system constraints, capacity restrictions or other factors relevant to protecting the integrity of the System, the Board or its designee may limit access to the System, for a period to be determined in the Board's discretion, pending any action required to address the issue of concern to the Board. To the extent that the Board places permanent limitations on access to the System on any Member(s), such limits shall be objectively determined and submitted to the Commission for approval pursuant to a rule change filing under Section 19(b) of the Exchange Act.

[Adopted: December 20, 2018]

Rule 601. Registered Option Traders

(a) Market Maker quotations and orders may be submitted to the System only by Registered Option Traders ("ROTs"). An ROT is permitted to enter quotes and orders only for the account of the Market Maker with which he is associated.

(b) **Registration of Registered Option Traders.** The Exchange may, upon receiving an application in writing from a Market Maker on a form prescribed by the Exchange, approve a person as an ROT.

(1) ROTs may be: (i) individual Members registered with the Exchange as Market Makers, or (ii) officers, partners, employees or associated persons of Members that are registered with the Exchange as Market Makers.

(2) To be approved as an ROT, a person must demonstrate knowledge of the Rules by passing an examination prescribed by the Exchange in accordance with Rule 203(a).

(3) The Exchange may require a Market Maker to provide additional information the Exchange considers necessary to establish whether a person should be approved.

(4) A person may be conditionally approved as an ROT subject to any conditions the Chief Regulatory Officer considers appropriate in the interests of maintaining a fair and orderly market.

(c) **Suspension or Withdrawal of Registration.**

(1) The Exchange may suspend or withdraw the registration previously given to a person to be an ROT if the Exchange determines that:

(i) the person has caused the Market Maker to fail to comply with the Rules;

(ii) the person is not properly performing the responsibilities of an ROT;

(iii) the person has failed to meet the conditions set forth under paragraph (b) above; or

(iv) the Exchange believes it is in the best interest of fair and orderly markets.

(2) If the Exchange suspends the registration of a person as an ROT, the Market Maker must not allow the person to submit quotes and/or orders into the System.

(3) The registration of an ROT will be withdrawn upon the written request of the Member for which the ROT is registered. Such written request shall be submitted on the form prescribed by the Exchange.

[Adopted: December 20, 2018]

Rule 602. Appointment of Market Makers

(a) **Appointment by the Exchange**. The Board or a committee designated by the Board shall appoint Market Makers to one or more classes of option contracts traded on the Exchange. In making such appointments the Board or designated committee shall consider

(1) the financial resources available to the Market Maker,

(2) the Market Maker's experience and expertise in market making or options trading,

(3) the preferences of the Market Maker to receive appointment(s) in specific option class(es), and

(4) the maintenance and enhancement of competition among Market Makers in each class of option contracts to which they are appointed.

The Board or designated committee shall make appointments in the best interest of the Exchange to provide competitive markets.

(b) **Allocation of Option Classes.** The Board or designated committee (1) will allocate options classes and make appointments of Primary Lead Market Makers, Lead Market Makers and Registered Market Makers to those classes, and (2) upon prior written notice, may limit the number of Market Makers in a class of option contracts traded on the Exchange as set forth in Rule 602(c).

(c) **Number of Market Makers Quoting per Class**.

(1) The Board or designated committee shall appoint one (1) Primary Lead Market Maker to each options class traded on the Exchange.

(2) The Exchange will impose an upper limit on the aggregate number of Market Makers that may quote in each class of options ("Class Quoting Limit" or "CQL"). Currently, the CQL is set at fifty (50) Market Makers per option class.

Market Makers requesting an appointment in a class of options will be considered for the appointment in accordance with paragraphs (a), (b) and (f) of this Rule 602 provided the number of Market Makers appointed in the options class does not exceed the CQL. When the number of Market Makers appointed in the options class equals the CQL, all other Market Makers requesting to be appointed in that options class will be wait-listed in the order in which they submitted their request. When the options class can accommodate another Market Maker (whether due to attrition or an increase in the CQL), the Market Maker at the "top" of the list (*i.e.*, the Market Maker that has been on the wait-list the longest amount of time) will be considered for the next appointment in accordance with paragraphs (a), (b) and (f) of this Rule 602. The Board or designated committee shall make appointments in the best interest of the Exchange to provide competitive markets. If a wait-listed Market Maker is offered, yet refuses, an appointment in the option class, the Market Maker will be removed from that wait list.

(3) The President of the Exchange (or in his absence his designee, who must be a Senior Vice President of the Exchange or higher) may increase the CQL for an existing or new option class if the President determines that it would be appropriate. The President (or his designee), in his discretion, may determine to reduce the CQL ("reduced CQL") if the President determines that it would be appropriate, provided, however, that any reduction must be undertaken in accordance with the following procedure. If a Market Maker changes its registration and ceases quoting in that class after the President (or his designee) has determined to decrease the CQL, the "increased" CQL will decrease by one until such time that the number of remaining Market Makers quoting in the option class equals the "reduced CQL." From that point forward, the number of Market Makers quoting in the product may not exceed the "reduced CQL." Any actions taken by the President of the Exchange pursuant to this paragraph will be submitted to the Commission in a rule filing pursuant to Section 19(b)(3)(A) of the Exchange Act.

(4) The Exchange will announce all changes regarding Class Quoting Limits through a Regulatory Circular. The Exchange may increase the CQL levels by submitting to the Commission a rule filing pursuant to Section 19(b)(3)(A) of the Exchange Act. The Exchange may decrease the CQL levels established above upon Commission approval of a rule filing submitted pursuant to Section 19(b)(2) of the Exchange Act.

(d) No appointment of a Market Maker shall be without the Market Maker's consent to such appointment, provided that refusal to accept an appointment may be deemed sufficient cause for termination or suspension of a Market Maker's registration.

(e) The Board or designated committee may suspend or terminate any appointment of a Market Maker under this Rule and may make additional appointments or change the option classes included in a Market Maker's appointed classes whenever, in the Board's or designated committee's judgment, the interests of a fair and orderly market are best served by such action.

(f) The Exchange shall periodically conduct an evaluation of Market Makers to determine whether they have fulfilled performance standards relating to, among other things, quality of markets, competition among Market Makers, observance of ethical standards, and administrative factors. The Exchange may consider any relevant information, including but not limited to the results of a Market Maker evaluation questionnaire, trading data, a Market Maker's regulatory history and such other factors and data as may be pertinent in the circumstances. Failure by a Market Maker to meet minimum performance standards may result in, among other things:

(1) suspension, termination or restriction of an appointment to one or more of the options classes within the Market Maker's appointed classes;

(2) restriction of appointments to additional options classes in the Market Maker's appointed classes; or

(3) suspension, termination, or restriction of the Market Maker's registration.

Interpretations and Policies:

.01 A Member that is approved to act in the capacity of a Lead Market Maker may voluntarily be appointed to act as an "Alternative Primary Lead Market Maker," so long as the Exchange has determined that such Member has the appropriate systems and procedures in place to undertake the responsibilities of a Primary Lead Market Maker.

(a) The Exchange may appoint an Alternative Primary Lead Market Maker to an options class only in the event that no Primary Lead Market Makers seek allocation of the security.

(b) If no Primary Lead Market Makers seek allocation of an options class, all eligible Lead Market Makers will be given notice and an opportunity to seek allocation of the security as an Alternative Primary Lead Market Maker. Such allocations will be made by the Board or committee designated by the Board according to the guidelines contained in Rule 602.

(c) An Alternative Primary Lead Market Maker shall have all of the responsibilities and privileges of a Primary Lead Market Maker under the Rules with respect to all appointed options classes in which the Lead Market Maker has been appointed Alternative Primary Lead Market Maker.

(d) If an Alternative Primary Lead Market Maker ceases trading an options class in which a Lead Market Maker has been appointed Alternative Primary Lead Market Maker, the class will be reallocated by the Exchange to a Lead Market Maker or another Alternative Lead Market Maker, as appropriate.

.02 Lead Market Makers and Registered Market Makers shall request appointments to (and relinquishment of appointments from) one or more classes of option contracts traded on the Exchange pursuant to Rule 602(a) via an Exchange approved electronic interface, which request must be submitted prior to 6:00 p.m. Eastern Time of the business day immediately preceding the next trading day. The Exchange approved electronic interface will also ensure that, before any appointment request (or relinquishment of an appointment) is approved, the CQL established by Rule 602 has not been exceeded. Appointments (and relinquishment of appointments) shall become effective on the day after the request is submitted, provided that it has been approved. Approvals and denials of appointments (and relinquishment of appointments) shall be communicated by the Exchange via the same Exchange approved electronic interface through which the request was made.

[Adopted: December 20, 2018; amended February 19, 2019 (SR-EMERALD-2019-05)]

Rule 603. Obligations of Market Makers

(a) **General**. Transactions of a Market Maker should constitute a course of dealings reasonably calculated to contribute to the maintenance of a fair and orderly market, and Market Makers should not make bids or offers or enter into transactions that are inconsistent with such a course of dealings. Ordinarily, Market Makers are expected to, except in unusual market conditions, refrain from purchasing a call option or a put option at a price more than $0.25 below parity, although a larger amount may be appropriate considering the particular market conditions. In the case of calls, parity is measured by the bid in the underlying security, and in the case of puts, parity is measured by the offer in the underlying security. The $0.25 amount above may be increased or provisions of this Rule may be waived by the Exchange on a series-by-series basis.

(b) **Appointment**. With respect to each options class to which a Market Maker is appointed under Rule 602, the Market Maker has a continuous obligation to engage, to a reasonable degree under the existing circumstances, in dealings for his own account when there exists, or it is reasonably anticipated that there will exist, a lack of price continuity, a temporary disparity between the supply of and demand for a particular option contract, or a temporary distortion of the price relationships between option contracts of the same class. Without limiting the foregoing, a Market Maker is expected to perform the following activities in the course of maintaining a fair and orderly market:

(1) To compete with other Market Makers to improve the market in all series of options classes to which the Market Maker is appointed.

(2) To make markets that, absent changed market conditions, will be honored for the number of contracts entered into the System in all series of options classes to which the Market Maker is appointed.

(3) To update market quotations in response to changed market conditions in all series of options classes to which the Market Maker is appointed.

(4) (i) To price option contracts fairly by, among other things, bidding and offering so as to create differences of no more than $5 between the bid and offer ("bid/ask differentials") following the opening rotation in an equity option contract;

(ii) The Exchange may establish differences other than the bid/ask differentials described in (i) above for one or more option series or classes.

(5) (i) The bid/ask differentials stated in subparagraph (b)(4) of this Rule shall not apply to in-the-money options where the underlying security's market is wider than the differentials set forth above. For these options, the bid/ask differential may be as wide as the quotation on the primary market of the underlying security.

(ii) The Exchange or its authorized agent may calculate bids and asks for various indices for the sole purpose of determining permissible bid/ask differentials on options on these indices. These values will be calculated by determining the weighted average of the bids and asks for the components of the corresponding index. These bids and asks will be disseminated by the Exchange at least every fifteen (15) seconds during the trading day solely for the purpose of determining the permissible bid/ask differential that market-makers may quote on an in-the-money option on the indices. For in-the-money series in index options where the calculated bid/ask differential is wider than the applicable differential set out in subparagraph (b)(4) of this Rule, the bid/ask differential in the index options series may be as wide as the calculated bid/ask differential in the underlying index. The Exchange will not make a market in the basket of stock comprising the indices and is not guaranteeing the accuracy or the availability of the bid/ask values.

(c) **Primary Lead Market Makers.** In addition to the obligations contained in this Rule for Market Makers generally, for options classes to which a Market Maker is an appointed Primary Lead Market Maker, it shall have the responsibility to submit valid width quotes in each series not later than one minute following the dissemination of a quote or trade by the market for the underlying security pursuant to Rule 503(e).

(d) **Classes of Options To Which Not Appointed**. With respect to classes of options to which a Market Maker is not appointed, it should not engage in transactions for an account in which it has an interest that are disproportionate in relation to, or in derogation of, the performance of his obligations as specified in paragraph (b) above with respect to those classes of options to which it is appointed. Market Makers should not:

(1) Individually or as a group, intentionally or unintentionally, dominate the market in options contracts of a particular class, or

(2) Effect purchases or sales on the Exchange except in a reasonable and orderly manner.

Interpretations and Policies:

.01 It shall not be considered a violation of Rule 603(c) if the Primary Lead Market Maker assigned in a particular equity option class has not submitted valid width quotes in any series of such class within one minute following the dissemination of a quote or trade by the market for the underlying security if the affected series of such class have opened for trading within such one minute period, unless the Primary Lead Market Maker demonstrates a pattern or practice of not submitting valid width quotes within one minute following the dissemination of a quote or trade by the market for the underlying security, irrespective of whether the series have opened for trading.

[Adopted: December 20, 2018]

Rule 604. Market Maker Quotations

(a) **Options Classes.** A quotation may only be entered by a Market Maker, and only in the options classes to which the Market Maker is appointed under Rule 602.

(b) **Price and Size Associated with Quotes.** A Market Maker's bid and offer for a series of option contracts shall state a price accompanied by the number of contracts at that price the Market Maker is willing to buy or sell upon receipt of an order or upon interaction with a quotation entered by another Market Maker on the Exchange.

(1) **Price**. The price of Market Maker quotes shall be in the minimum trading increments applicable to the security under Rule 510.

(2) **Size**. The initial size of a Market Maker incoming Standard Quote and all other types of eQuotes must be for the minimum number of contracts, which minimum number shall be at least one (1) contract. The minimum number of contracts, which can vary according to type of quote or eQuote, shall be at least one (1) contract, will be determined by the Exchange on a class-by-class basis and announced to the Members through a Regulatory Circular.

(c) **Two-Sided Quotes.** A Market Maker that enters a bid (offer) on the Exchange must enter an offer (bid) within the spread allowable under Rule 603(b)(4).

(d) **Firm Quotes.**

(1) Market Maker bids and offers are firm for orders and Market Maker quotations both under this Rule and Rule 602 of Regulation NMS under the Exchange Act ("Rule 602 of Reg NMS") for the number of contracts specified according to the requirements of paragraph (b) above. Market Maker bids and offers are not firm under this Rule and Rule 602 of Reg NMS if:

(i) a System malfunction or other circumstance impairs the Exchange's ability to disseminate or update market quotes in a timely and accurate manner.

(ii) the level of trading activities or the existence of unusual market conditions is such that the Exchange is incapable of collecting, processing, and making available to quotation vendors the data for the option in a manner that accurately reflects the current state of the market on the Exchange, and as a result, the market in the option is declared to be "fast" pursuant to Rule 506.

(iii) during trading rotations; or

(iv) any of the circumstances provided in paragraph (c)(4) of Rule 602 of Reg NMS exist.

(e) **Continuous Quotes**. The following quoting requirements shall apply:

(1) **Primary Lead Market Makers**

(i) A Primary Lead Market Maker must provide continuous two-sided Standard quotes, which for the purpose of this paragraph shall mean 90% of the time, for the options classes to which it is appointed.

(ii) A Primary Lead Market Maker must provide continuous two-sided Standard quotes in at least the lesser of 99% of the non-adjusted option series, or 100% of the non-adjusted option series minus one put-call pair, in each class in which the Primary Lead Market Maker is assigned. The term "put-call pair" refers to one put and one call that cover the same underlying instrument and have the same expiration date and exercise price. Such quotations must meet the bid/ask differential requirements of Rule 603(b)(4). These obligations will apply to all appointed classes collectively for each Primary Lead Market Maker, rather than on a class-by-class basis. Compliance with this obligation will be determined on a monthly basis. However, determining compliance with the continuous

quoting requirement on a monthly basis does not relieve the Primary Lead Market Maker of the obligation to provide continuous two-sided quotes on a daily basis, nor will it prohibit the Exchange from taking disciplinary action against a Primary Lead Market Maker for failing to meet the continuous quoting obligation each trading day.

(iii) The obligation contained in subparagraph (e)(1)(ii) above, does not apply to adjusted option series, nor to an intra-day add-on series on the day during which such series was added for trading. For purposes of this Rule, an adjusted options series is an options series wherein, as a result of a corporate action by the issuer of the underlying security, one option contract in the series represents the delivery of other than 100 shares of underlying stock or exchange-traded fund shares.

(iv) If a technical failure or limitation of a system of the Exchange prevents a Primary Lead Market Maker from maintaining, or prevents a Primary Lead Market Maker from communicating to the Exchange, timely and accurate electronic quotes in a class, the duration of such failure shall not be considered in determining whether the Primary Lead Market Maker has satisfied the quoting standard with respect to that option class. The Exchange may consider other exceptions to this continuous electronic quote obligation based on demonstrated legal or regulatory requirements or other mitigating circumstances.

(2) **Lead Market Makers**

(i) A Lead Market Maker must provide continuous two-sided Standard quotes, which for the purpose of this paragraph shall mean 90% of the time, for the options classes to which it is appointed.

(ii) A Lead Market Maker must provide continuous two-sided Standard quotes in at least 90% of the non-adjusted option series in each of its appointed classes. Such quotations must meet the bid/ask differential requirements of Rule 603(b)(4). These obligations will apply to all appointed classes collectively for each Lead Market Maker, rather than on a class-by-class basis. Compliance with this obligation will be determined on a monthly basis. However, determining compliance with the continuous quoting requirement on a monthly basis does not relieve the Lead Market Maker of the obligation to provide continuous two-sided quotes on a daily basis, nor will it prohibit the Exchange from taking disciplinary action against a Lead Market Maker for failing to meet the continuous quoting obligation each trading day.

(iii) The obligation contained in subparagraph (e)(2)(ii) above, does not apply to adjusted option series, to series with a time to expiration of nine (9) months or greater, nor to an intra-day add-on series on the day during which such series was added for trading. For purposes of this Rule, an adjusted options series is an options series wherein, as a result of a corporate action by the issuer of the underlying security, one option contract in the series represents the delivery of other than 100 shares of underlying stock or exchange-traded fund shares.

(iv) If a technical failure or limitation of a system of the Exchange prevents a Lead Market Maker from maintaining, or prevents a Lead Market Maker from communicating to the Exchange, timely and accurate electronic quotes in a class, the duration of such failure shall not be considered in determining whether the Lead Market Maker has satisfied the quoting standard with respect to that option class. The Exchange may consider other exceptions to this continuous electronic quote obligation based on demonstrated legal or regulatory requirements or other mitigating circumstances.

(3) **Registered Market Makers**.

(i) A Registered Market Maker must provide continuous two-sided Standard quotes throughout the trading day in 60% of the non-adjusted series that have a time to expiration of less than nine months in each of its appointed classes. For the purpose of this paragraph, continuous two-sided quoting shall mean 90% of the time, for the options classes to which the Registered Market Maker is appointed. Such quotations must meet the bid/ask differential requirements of Rule 603(b)(4). These obligations will not apply to an intra-day add-on series on the day during which such series was added for trading. These obligations will apply to all appointed classes collectively for each Registered Market Maker, rather than on a class-by-class basis. Compliance with this obligation will be determined on a monthly basis. However, determining compliance with the continuous quoting requirement on a

monthly basis does not relieve the Registered Market Maker of the obligation to provide continuous two-sided quotes on a daily basis, nor will it prohibit the Exchange from taking disciplinary action against a Registered Market Maker for failing to meet the continuous quoting obligation each trading day.

(ii) If a technical failure or limitation of a system of the Exchange prevents a Market Maker from maintaining, or prevents a Market Maker from communicating to the Exchange, timely and accurate electronic quotes in a class, the duration of such failure shall not be considered in determining whether the Market Maker has satisfied the 60% quoting standard with respect to that option class. The Exchange may consider other exceptions to this continuous electronic quote obligation based on demonstrated legal or regulatory requirements or other mitigating circumstances.

(iii) A Registered Market Maker may be called upon by an Exchange official designated by the Board to submit a single quote or maintain continuous quotes in one or more of the series of an options class to which the Registered Market Maker is appointed whenever, in the judgment of such official, it is necessary to do so in the interest of fair and orderly markets.

(iv) Notwithstanding the foregoing, Registered Market Makers shall be deemed not to be assigned in any Quarterly Option Series. Accordingly, the continuous quoting obligations set forth in this Rule shall not apply to Registered Market Makers with respect to Quarterly Option Series.

(f) **Temporary Withdrawal of Quotations by the Primary Lead Market Maker.** A Primary Lead Market Maker may apply to the Exchange to withdraw temporarily from its Primary Lead Market Maker status in an options class. The Primary Lead Market Maker must base its request on demonstrated legal or regulatory requirements that necessitate its temporary withdrawal, or provide the Exchange an opinion of counsel certifying that such legal or regulatory basis exists. The Exchange will act promptly on such a request, and, if the request is granted, the Exchange will temporarily reassign the options class to another Primary Lead Market Maker.

Interpretations and Policies:

.01 Pursuant to Rule 604(e)(2)(iii), the continuous quoting requirement for Lead Market Makers does not apply to option series with a time to expiration of nine (9) months or greater, nor to intra-day add-on series. That limitation, however, does not prevent Lead Market Makers from quoting such long-term and intra-day add-on option series and does not prevent Lead Market Makers from receiving Directed Orders and the participation entitlement in such series in accordance with the provisions set forth in Rule 514(h) and (i).

.02 Pursuant to Rule 604(e)(1)(iii), the continuous quoting requirement for Primary Lead Market Makers does not apply to intra-day add-on series. That limitation, however, does not prevent Primary Lead Market Makers from quoting such intra-day add-on series and does not prevent Primary Lead Market Makers from receiving the participation entitlement in such series in accordance with the provisions set forth in Rule 514(g) and (i).

[Adopted: December 20, 2018]

Rule 605. Market Maker Orders

(a) **Options Classes to Which Appointed.** Market Makers may place principal orders to buy or sell options in the options classes to which they are appointed under Rule 602, including Day Limit Orders, Opening ("OPG") Orders, Auction-or-Cancel ("AOC") Orders, Immediate-or-Cancel ("IOC") Orders, Fill-or-Kill ("FOK") Orders, Post-Only Orders and cAOC Complex Orders. Market Makers may not enter market orders or Good 'til Cancelled ("GTC") Orders in their assigned classes. Registered Market Makers shall comply with the provisions of Rule 604(e)(3)(i) upon the entry of such orders if they were not previously quoting in the series.

(b) **Options Classes Other Than Those to Which Appointed.**

(1) Except for market orders and GTC Orders, a Market Maker may enter all other order types permitted to be entered by Non-Customer participants under the Rules when the Market Maker is seeking to buy or sell options in classes of options listed on the Exchange to which the Market Maker is not appointed under Rule 602.

(2) **Registered Market Makers.** The total number of contracts executed during a quarter by a Registered Market Maker in options classes to which it is not appointed may not exceed twenty-five percent (25%) of the total number of contracts traded by such Registered Market Maker in classes to which it is appointed and with respect to which it was quoting pursuant to Rule 604(e) in any calendar quarter.

(3) **Lead Market Makers.** The total number of contracts executed during a quarter by a Lead Market Maker (including those Lead Market Makers appointed as Primary Lead Market Makers) in options classes to which it is not appointed may not exceed ten percent (10%) of the total number of contracts traded by such Lead Market Maker in classes to which it is appointed and with respect to which it was quoting pursuant to Rule 604(e)(1).

(c) **Priority of Market Maker Orders**. In accordance with Rule 514, executions resulting from Market Maker orders will always be allocated with other Professional Interest (such as orders from broker-dealers, firms, non-Priority Customers and non-priority Market Maker quotes) and after both Priority Customer interest and priority Market Maker quotes (as described in Rule 517) have been satisfied.

(d) **Non-MIAX Emerald Market Maker Orders**. An EEM may enter for the proprietary account of a non-MIAX Emerald Market Maker all order types permitted to be entered under the Rules by Members, other than market orders and GTC Orders.

[Adopted: December 20, 2018]

Rule 606. Trade Reporting and Comparison

The details of each trade executed on the Exchange are automatically reported at the time of execution. Members need not separately report their transactions for trade comparison purposes.

[Adopted: December 20, 2018]

Rule 607. Securities Accounts and Orders of Market Makers

(a) **Identification of Accounts**. In a manner prescribed by the Exchange, each Market Maker shall file with the Exchange and keep current a list identifying all accounts for stock, options, 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, physical commodities, physical commodity options, commodity futures contracts, options on commodity futures contracts, any other derivatives based on such commodity and related securities trading in which the Market Maker may, directly or indirectly, engage in trading activities or over which it exercises investment discretion. No Market Maker shall engage in stock, options, 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, physical commodities, physical commodity options, commodity futures contracts, options on commodity futures contracts, any other derivatives based on such commodity or related securities trading in an account which has not been reported pursuant to this Rule. In addition, Market Makers in options on Exchange-Traded Fund Shares, as defined in Rule 402(i), are obligated to conduct all trading in the Exchange-Traded Fund Shares in account(s) that have been reported to the Exchange.

(b) **Reports of Orders**. Each Market Maker shall in the prescribed form, report to the Exchange every order entered by the Market Maker for the purchase or sale of (i) a security underlying options traded on the Exchange, or (ii) a security convertible into or exchangeable for such underlying security, as well as opening and closing positions in all such securities held in each account reported pursuant to paragraph (a) of this Rule. The report pertaining to orders must include the terms of each order, identification of the brokerage firms through which the orders were entered,

the times of entry or cancellation, the times report of execution were received and, if all or part of the order was executed, the quantity and execution price.

(c) **Joint Accounts**. No Market Maker shall, directly or indirectly, hold any interest or participate in any joint account for buying or selling any option contract unless each participant in such joint account is a Member and unless such account is reported to and not disapproved by the Exchange. Such reports in a form prescribed by the Exchange shall be filed with the Exchange before any transaction is effected on the Exchange for such joint account. A participant in a joint account must:

(1) Be either a Market Maker or a Clearing Member that carries the joint account;

(2) File and keep current a completed application on such form as is prescribed by the Exchange;

(3) Be jointly and severally responsible for assuring that the account complies with all the Rules; and

(4) Not be a Market Maker appointed to the same options classes to which the joint account holder is also appointed as a Market Maker.

[Adopted: December 20, 2018]

Rule 608. Letters of Guarantee

(a) **Required of Each Market Maker.** No Market Maker shall make any transactions on the Exchange unless a Letter of Guarantee has been issued for such Member by a Clearing Member and filed with the Exchange, and unless such Letter of Guarantee has not been revoked pursuant to paragraph (c) of this Rule.

(b) **Terms of Letter of Guarantee.** A Letter of Guarantee shall provide that the issuing Clearing Member accepts financial responsibilities for all Exchange Transactions made by the guaranteed Member.

(c) **Revocation of Letter of Guarantee.** A Letter of Guarantee filed with the Exchange shall remain in effect until a written notice of revocation has been filed with the Exchange. A revocation shall in no way relieve a Clearing Member of responsibility for transactions guaranteed prior to the effective date of such revocation.

[Adopted: December 20, 2018]

Rule 609. Financial Requirements for Market Makers

(a) **Primary Lead Market Makers.** Every Primary Lead Market Maker shall maintain net liquidating equity of not less than $5,000,000.

(b) **Lead Market Makers.** Every Lead Market Maker shall maintain net liquidating equity of not less than $1,500,000.

(c) **Registered Market Makers**. Every Registered Market Maker shall maintain net liquidating equity of not less than $500,000.

(d) Each Market Maker which is a Clearing Member shall also maintain net capital sufficient to comply with the requirements of the Clearing Corporation and Exchange Act Rule 15c3-1. This equity requirement, as well as all other provisions of the section (including capital maintenance requirements), applies to each Market Maker account, without regard to the number of Market Maker accounts per firm.

(e) The term "net liquidating equity" means the sum of positive cash balances and long securities positions less negative cash balances and short securities positions.

[Adopted: December 20, 2018]

Rule 610. [Reserved]

Rule 611. Financial Arrangements of Market Makers

Each Market Maker who makes an arrangement to finance its transactions as a Market Maker must identify to the Exchange the source of the financing and its terms. The Exchange must be informed immediately of the intention of any party to terminate or change any such arrangement

[Adopted: December 20, 2018]

Rule 612. Aggregate Risk Manager (ARM)

(a) The MIAX Emerald System will maintain a counting program ("counting program") for each Market Maker who is required to submit continuous two-sided quotations pursuant to Rule 604 in each of their appointed option classes. The counting program will count the number of contracts traded by a Market Maker in an appointed option class within a specified time period that has been established by the Market Maker (the "specified time period"). The specified time period cannot exceed 15 seconds, whether established by the Market Maker or as a default setting, as defined below. The Market Maker may also establish for each option class an Allowable Engagement Percentage. The Exchange will establish a default specified time period and a default Allowable Engagement Percentage ("default settings") on behalf of a Market Maker that has not established a specified time period and/or an Allowable Engagement Percentage. The default Allowable Engagement Percentage shall not be less than 100%. The default settings will be determined by the Exchange on an Exchange-wide basis and announced to Members via Regulatory Circular. When an execution of a Market Maker's Standard quote occurs, the System will look back over the specified time period to determine whether the execution triggers the Aggregate Risk Manager.

(b) (1) **Aggregate Risk Manager.** The System will engage the Aggregate Risk Manager in a particular option class when the counting program has determined that a Market Maker has traded during the specified time period a number of contracts equal to or above their Allowable Engagement Percentage. The Aggregate Risk Manager will then automatically remove the Market Maker's Standard quotations from the Exchange's disseminated quotation in all series of that particular option class until the Market Maker sends a notification to the System of the intent to reengage quoting and submits a new revised quotation.

(i) **Reset on Quote Functionality**. When the Market Maker revises his/her quotation on the buy side or sell side of an individual option, contracts executed on that side of the individual option will not be included in the Allowable Engagement Percentage and Net Offset calculations, and the counting program is reset to zero on that side of the individual option until it trades again ("Reset on Quote"). A Market Maker may determine to disengage or re-engage the Reset on Quote functionality for an option class by notifying the Exchange in a manner required by the Exchange and communicated to Members by Regulatory Circular. If the Reset on Quote functionality is disengaged, the System will not reset the counting program to zero upon receipt of a revised quotation.

(2) **Allowable Engagement Percentage.** To determine whether the Market Maker's executed contracts is equal to or above their Allowable Engagement Percentage the following will occur:

(i) for each individual option in a class, the counting program will determine the percentage that the number of contracts executed in that individual option represents relative to the Market Maker's disseminated Standard quote in that individual option ("option percentage"); and

(ii) the counting program will combine the individual option percentages to determine the option class percentage ("class percentage"). When the class percentage equals or exceeds the Market Maker's Allowable Engagement Percentage the Aggregate Risk Manager will remove the Market Maker's quotations as described above.

(3) **Net Offset.** The number of contracts executed in an option class will be automatically offset by the number of contracts that are executed on the opposite side of the market in the same option class during the specified time period (the "Net Offset"). Long call positions will only be offset by short call positions, and long put positions will only be offset by short put positions. The option percentage will be determined based on the number of executed contracts after the Net Offset process has occurred.

(c) All of a Market Maker's quotes in each option class will be considered firm until such time as the Allowable Engagement Percentage threshold has been equaled or crossed and the Market Maker's quotes are removed by the Aggregate Risk Manager in all series of that option class. Any marketable orders, or quotes that are executable against a Market Maker's disseminated quotation that are received prior to the time the Aggregate Risk Manager is engaged will be automatically executed at the disseminated price up to the Market Maker's disseminated size, regardless of whether such an execution results in executions in excess of the Market Maker's Allowable Engagement Percentage.

(d) In the event that the last Market Maker's quote is removed by the Aggregate Risk Manager, there are no other Market Makers quoting in the particular option class or individual option and there are no orders on the Book, the Exchange will disseminate a bid price of $0.00, with a size of zero contracts and/or an offer price of $0.00, with a size of zero contracts.

Interpretations and Policies:

.01 The System does not include contracts traded through the use of an eQuote in the counting program for purposes of this Rule. eQuotes will remain in the System available for trading and may continue to be submitted to the Exchange when the Aggregate Risk Manager is engaged.

.02 **Enhanced Aggregate Risk Manager Protections.** Market Makers may determine to engage any of the following Enhanced Aggregate Risk Manager Protections in the System:

(a) **Market Maker Single Class Protection.** A Market Maker may determine to engage the Market Maker Single Class Protection feature for a particular option class in which the Market Maker is appointed (an "appointed option class"). When the Allowable Engagement Percentage in such appointed option class has been equaled or exceeded a specified number of times (not less than three times and not more than 99 times) within a specified time period (for purposes of the Enhanced ARM Protections, the "ARM trigger counting period") (each as determined by the Market Maker), the Market Maker Single Class Protection feature will remove the Market Maker's quotations from the Exchange's disseminated quotation in such appointed option class until the Market Maker instructs the Exchange (in a manner required by the Exchange and communicated to Members by Regulatory Circular) to reset the Market Maker Single Class Protection feature. The ARM trigger counting period may not be less than one second and may not exceed 24,300 seconds.

(b) **Market Maker Aggregate Class Protection.** A Market Maker may determine to engage the Market Maker Aggregate Class Protection feature for all of the Market Maker's appointed option classes. The System will aggregate the specified number of times that the Allowable Engagement Percentage has been equaled or exceeded within the ARM trigger counting period for an entire Market Maker organization. When the Allowable Engagement Percentage has been equaled or exceeded in a specified number of such Market Maker's appointed option classes within the ARM trigger counting period (each as determined by the Market Maker), the Market Maker Aggregate Class Protection feature will remove the Market Maker's quotations from the Exchange's disseminated quotation in all of the Market Maker organization's appointed option classes until the Market Maker instructs the Exchange (in a manner required by the Exchange and communicated to Members by Regulatory Circular) to reset the Market Maker Aggregate Class Protection feature. In the event that the Allowable Engagement Percentage in one appointed option class is equaled or exceeded multiple times during the ARM trigger counting period, the System will consider such

multiple events to be one single trigger for purposes of engagement of the Market Maker Aggregate Class Protection feature.

(c) **Market Maker Single Side Protection**. A Market Maker may determine to engage the Market Maker Single Side Protection ("SSP") feature by Market Participant Identifier ("MPID"). If the full remaining size of a Market Maker's Standard quote, IOC eQuote, or FOK eQuote, in an individual option, is exhausted by a trade, the System will trigger the SSP. When triggered, the System will cancel all Standard quotes and block all new inbound Standard quotes, IOC eQuotes, and FOK eQuotes, for that particular side of that individual option for that MPID. The System will provide a notification message to the Market Maker. The block will remain in effect until the Market Maker notifies the Exchange (in a manner required by the Exchange and communicated to Members by Regulatory Circular) to reset the SSP ("SSP Reset").

[Adopted: December 20, 2018]

CHAPTER VII. EXERCISES AND DELIVERIES

The rules contained in MIAX Chapter VII, as such rules may be in effect from time to time (the "Chapter VII Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter VII, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter VII Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter VII Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter VII Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter VII Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter VII Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter VII Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter VII Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER VIII. RECORDS, REPORTS AND AUDITS

The rules contained in MIAX Chapter VIII, as such rules may be in effect from time to time (the "Chapter VIII Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter VIII, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter VIII Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter VIII Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter VIII Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter VIII Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter VIII Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter VIII Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter VIII Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER IX. SUMMARY SUSPENSION

The rules contained in MIAX Chapter IX, as such rules may be in effect from time to time (the "Chapter IX Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter IX, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter IX Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter IX Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter IX Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter IX Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter IX Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter IX Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter IX Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER X. DISCIPLINE

The rules contained in MIAX Chapter X, as such rules may be in effect from time to time (the "Chapter X Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter X, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter X Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter X Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter X Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter X Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter X Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter X Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter X Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER XI. HEARINGS, REVIEW AND ARBITRATION

The rules contained in MIAX Chapter XI, as such rules may be in effect from time to time (the "Chapter XI Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter XI, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter XI Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter XI Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter XI Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter XI Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter XI Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter XI Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter XI Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER XII. ORGANIZATION AND ADMINISTRATION

Rule 1200. Divisions of the Exchange

The divisions of the Exchange shall include the Regulatory Division and such other Divisions as the Chief Executive Officer, with the approval of the Board, may establish. The Chief Executive Officer shall appoint a head of every Division and may designate departments within each Division.

[Adopted: December 20, 2018]

Rule 1201. Designees

(a) The Chief Executive Officer ("CEO") or the Chief Regulatory Officer ("CRO") of the Exchange may formally designate one or more qualified employees of MIAX Emerald to act in place of any person named in a rule as having authority to act under such rule in the event that the named person in the rule is not available to administer that rule.

(b) For purposes of a designation by the CEO, a qualified employee is: (1) any officer of MIAX Emerald that the CEO deems to possess the requisite knowledge and job qualifications to administer that rule; or (2) any employee of the Exchange that the CEO and the Board of Directors deems to possess the requisite knowledge and job qualifications to administer that rule.

(c) For purposes of a designation by the CRO, a qualified employee is: (1) any officer of the MIAX Emerald Regulatory Division that the CRO deems to possess the requisite knowledge and job qualifications to administer that rule; or (2) an employee of the MIAX Emerald Regulatory Division that the CRO and the Board of Directors deems to possess the requisite knowledge and job qualifications to administer that rule.

[Adopted: December 20, 2018]

Rule 1202. Membership Dues

(a) The dues payable by Members shall be fixed from time to time by the Board. Dues shall be payable in full on the first day of each month on a nonrefundable basis and shall be applied to the month beginning on that day. The Board may, on the request of a Member who is serving on active duty in the Armed Forces of the United States, waive dues during the period of such service.

(b) In addition to the fees and charges provided for by Rule 1202, the Board may, from time to time, fix and impose other fees, assessments or charges to be paid to the Exchange or to an organization designated by the Exchange by Members or by categories of Members with respect to applications, registrations, approvals, use of Exchange facilities, or other services or privileges granted.

[Adopted: December 20, 2018]

Rule 1203. Other Fees and Charges

(a) **Access Fees.** The access fees payable by Members shall be fixed from time to time by the Board.

(b) **Transaction Fees.** Members shall pay a fee for each transaction they execute on the Exchange, as may be determined by the Board.

(c) **Communication Fees.** The Board may, at its discretion, impose a communication fee for quotes entered on the Exchange in addition to the fee contained in Rule 1202(b).

(d) **Regulatory Fees or Charges.** In addition to the dues and charges specified in this Chapter, the Board may, from time to time, fix and impose other fees, assessments or charges to be paid to the Exchange by Members or by Classes

of Members with respect to applications, registrations, approvals, use of Exchange facilities, regulatory oversight or other services or privileges granted.

(e) **Fee Disputes**. All disputes concerning fees, dues or charges assessed by the Exchange must be submitted to the Exchange in writing and must be accompanied by supporting documentation. All disputes related to fees, dues or other charges must be submitted to the Exchange no later than sixty (60) days after the date of the monthly invoice. All Exchange invoices are due in full on a timely basis and payable in accordance with Rule 208. Any disputed amount resolved in the Member's favor will be subsequently credited to the Clearing Member's account at the Clearing Corporation.

[Adopted: December 20, 2018]

Rule 1204. Liability for Payment of Fees

(a) Any Member that does not pay any dues, fees, assessments, charges, fines or other amounts due to the Exchange within thirty (30) days after they have become payable shall be reported to the President, who may, after giving reasonable notice to the Member of such arrearages, suspend the Member's trading privileges until payment is made.

(b) A person associated with a Member who fails to pay any fine or other amounts due to the Exchange within thirty (30) days after such amount has become payable and after reasonable notice of such arrearages, may be suspended from association with a Member until payment is made.

[Adopted: December 20, 2018]

Rule 1205. Exchange's Costs of Defending Legal Proceedings

Any Member or person associated with a Member who fails to prevail in a lawsuit or other legal proceeding instituted by such person against the Exchange or any of its Directors, officers, committee members, limited liability members, employees or agents, and related to the business of the Exchange, shall pay to the Exchange all reasonable expenses, including attorneys' fees, incurred by the Exchange in the defense of such proceeding, but only in the event that such expenses exceed fifty thousand dollars ($50,000). This provision shall not apply to disciplinary actions by the Exchange, to administrative appeals of Exchange actions or in any specific instance where the Board has granted a waiver of this provision.

[Adopted: December 20, 2018]

Rule 1206. Committees of the Exchange

(a) **Establishment of Committees**. The Chief Executive Officer, with the approval of the Board, shall appoint any committee members that are not Directors to committees established by the Board in the By-Laws, or established by the Chief Executive Officer pursuant to authority delegated to him by the Board.

(b) **Removal of Committee Members**. The Chief Executive Officer may, with the approval of the Board, remove any committee member that is not a Director for refusal, neglect, or inability to discharge such committee member's duties.

(c) **Committee Procedures**. Except as otherwise provided in the By-Laws, the Rules or resolution of the Board, each committee shall determine its own time and manner of conducting its meetings and the vote of a majority of the members of a committee present at a meeting at which a quorum is present shall be the act of the committee. Committees may act informally by written consent of all of the members of the committee.

(d) **General Duties and Powers of Committees.** Each committee shall administer the provisions of the By-Laws and the Rules pertaining to matters within its jurisdiction. Each committee shall have such other powers and duties as may be delegated to it by the Board. Each committee is subject to the control and supervision of the Board.

[Adopted: December 20, 2018]

Rule 1207. Sales Value Fee

(a) The Sales Value Fee is assessed by the Exchange to each Member for sales on the Exchange with respect to which the Exchange is obligated to pay a fee to the Commission pursuant to Section 31 of the Exchange Act. To the extent there may be any excess monies collected under this rule, the Exchange may retain those monies to help fund general operating expenses. The sales transactions to which the fee applies are sales of options (other than options on a security index) and the sales of securities resulting from the exercise of physical-delivery options. The fee is collected indirectly from Members through their clearing firms by The Options Clearing Corporation on behalf of MIAX Emerald with respect to option sales and options exercises.

(b) The Sales Value Fee is equal to the Section 31 fee rate multiplied by the Member's aggregate dollar amount of covered sales resulting from options transactions occurring on the Exchange during any computational period.

[Adopted: December 20, 2018]

CHAPTER XIII. DOING BUSINESS WITH THE PUBLIC

The rules contained in MIAX Chapter XIII, as such rules may be in effect from time to time (the "Chapter XIII Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter XIII, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter XIII Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter XIII Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter XIII Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter XIII Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter XIII Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter XIII Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter XIII Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER XIV. ORDER PROTECTION, LOCKED and CROSSED MARKETS

The rules contained in MIAX Chapter XIV, as such rules may be in effect from time to time (the "Chapter XIV Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter XIV, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter XIV Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter XIV Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter XIV Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter XIV Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter XIV Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter XIV Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter XIV Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER XV. MARGINS

The rules contained in MIAX Chapter XV, as such rules may be in effect from time to time (the "Chapter XV Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter XV, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter XV Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter XV Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter XV Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter XV Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter XV Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter XV Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter XV Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER XVI. NET CAPITAL REQUIREMENTS

The rules contained in MIAX Chapter XVI, as such rules may be in effect from time to time (the "Chapter XVI Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter XVI, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter XVI Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter XVI Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter XVI Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter XVI Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter XVI Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter XVI Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter XVI Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER XVII. CONSOLIDATED AUDIT TRAIL COMPLIANCE RULE

The rules contained in MIAX Chapter XVII, as such rules may be in effect from time to time (the "Chapter XVII Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter XVII, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter XVII Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter XVII Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter XVII Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter XVII Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter XVII Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter XVII Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter XVII Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

CHAPTER XVIII. INDEX OPTIONS

The rules contained in MIAX Chapter XVIII, as such rules may be in effect from time to time (the "Chapter XVIII Rules"), are hereby incorporated by reference into this MIAX Emerald Chapter XVIII, and are thus MIAX Emerald Rules and thereby applicable to MIAX Emerald Members. MIAX Emerald Members shall comply with the Chapter XVIII Rules as though such rules were fully-set forth herein. All defined terms, including any variations thereof, contained in Chapter XVIII Rules shall be read to refer to the MIAX Emerald related meaning of such term. Solely by way of example, and not in limitation or in exhaustion: the defined term "Exchange" in the Chapter XVIII Rules shall be read to refer to MIAX Emerald; the defined term "Rule" in the Chapter XVIII Rules shall be read to refer to the MIAX Emerald Rule; the defined term "Chapter" in the Chapter XVIII Rules shall be read to refer to the MIAX Emerald Chapter; the defined term "Market Maker" in Chapter XVIII Rules shall be read to refer to the MIAX Emerald Market Maker; and the defined term "Member" in the Chapter XVIII Rules shall be read to refer to the MIAX Emerald Member.

[Adopted: December 20, 2018]

Exhibit C

EXHIBIT C

Exhibit Request:

For each subsidiary or affiliate of the applicant, and for any entity with whom the applicant has a contractual or other agreement relating to the operation of an electronic trading system to be used to effect transactions on the exchange ("System"), provide the following information:

1. **Name and address of organization.**

2. **Form of organization (e.g., association, corporation, partnership, etc.).**

3. **Name of state and statute citation under which organized. Date of incorporation in present form.**

4. **Brief description of nature and extent of affiliation.**

5. **Brief description of business or functions. Description should include responsibilities with respect to operation of the System and/or execution, reporting, clearance, or settlement of transactions in connection with operation of the System.**

6. **A copy of the constitution.**

7. **A copy of the articles of incorporation or association including all amendments.**

8. **A copy of existing by-laws or corresponding rules or instruments.**

9. **The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions.**

10. **An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association.**

Response:

A. MIAMI INTERNATIONAL HOLDINGS, INC.

1. *Name*: Miami International Holdings, Inc.
   Address: 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540

2. *Form of organization*: Corporation.

3. *Name of state, statute under which organized and date of incorporation*: Delaware, Delaware General Corporation Law (8 Del. C. § 101, et seq), on November 14, 2007.

4. *Brief description of nature and extent of affiliation*: MIAX Emerald, LLC is a wholly-owned subsidiary of Miami International Holdings, Inc. ("MIH").

5. *Brief description of business or functions*: Miami International Holdings, Inc. is a holding company which holds 100% of the equity of Miami International Securities Exchange, LLC, MIAX PEARL, LLC, MIAX Emerald, LLC, Miami International Technologies, LLC, MIAX Global, LLC, Miami International Futures Exchange, LLC, and MIAX Products, LLC. Miami International Holdings, Inc. is the entity through which the ultimate owners of the applicant indirectly hold their ownership interest in the applicant and its affiliates.

6. *A copy of the constitution*: Not applicable.

7. *A copy of the articles of incorporation or association including all amendments*: **The Amended and Restated Certificate of Incorporation dated October 16, 2015 is attached.**

8. *A copy of existing by-laws or corresponding rules or instruments*: **The Amended and Restated By-Laws dated June 27, 2015 are attached.**

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions*:

Officers of Miami International Holdings, Inc.

The following persons are the officers of Miami International Holdings, Inc.:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Paul Warner	Executive Vice President and Chief Financial Officer
Edward Deitzel	Executive Vice President and Chief Regulatory Officer
Randy Foster	Senior Vice President – Business Systems Development
Harish Jayabalan	Senior Vice President – Chief Risk Officer & Chief Information Security Officer
Matthew Rotella	Senior Vice President – Chief Technology Officer
Joseph W. Ferraro III	Senior Vice President – Deputy General Counsel
Deborah Carroll	Senior Vice President – Associate General Counsel
Amy Neiley	Senior Vice President – Trading Operations and Listings
Rodney Hester	Vice President – Systems Infrastructure
Roli Bhotika	Vice President – Head of Business Development
Shawn Hughes	Vice President – Project Management
James O'Neil	Vice President and Director of Physical Security and Safety
Vinay Rao	Vice President – Trading Systems Development
Siddharth Sahoo	Vice President – Trading Systems Development

Name	Title
Tia Toms	Vice President – Administration
Kelly Fitzgerald	Assistant Vice President – Controller
Christopher Solgan	Assistant Vice President – Senior Counsel
Gregory Ziegler	Assistant Vice President – Senior Associate Counsel

The officers of Miami International Holdings, Inc. serve until their successors are appointed in accordance with the By-Laws of Miami International Holdings, Inc. Officers of Miami International Holdings, Inc. serve at the direction of the Board of Directors.

Directors of Miami International Holdings, Inc.

The following persons are the directors of Miami International Holdings, Inc.:

Name
Thomas P. Gallagher (Chairman)
Talal Jassim Al-Bahar
Abdulwahab Ahmad Al-Nakib
Sayer B. Al-Sayer
Michael P. Ameen
Albert M. Barro, Jr.
John Beckelman
Barry J. Belmont
Ricardo Blach
Christopher Brady
Khaled Magdy El-Marsafy
William W. Hopkins
Thomas J. Kelly, Jr.
Paul Kotos
Jack G. Mondel
William J. O'Brien III
Robert D. Prunetti
Mark F. Raymond
Douglas M. Schafer, Jr.
Paul V. Stahlin
Byrum W. Teekell
Christopher L. Whittington
Jassem Hassan Zainal

Directors of Miami International Holdings, Inc. serve one year terms.

Audit Committee of Miami International Holdings, Inc.

The following persons are members of the Audit Committee of Miami International Holdings, Inc.:

Name
Paul V. Stahlin (Chairman)
Michael P. Ameen
Khaled Magdy El-Marsafy

Compensation Committee of Miami International Holdings, Inc.

The following persons are members of the Compensation Committee of Miami International Holdings, Inc.:

Name
Talal Jassim Al-Bahar (Chairman)
Christopher D. Brady
Thomas J. Kelly
Mark F. Raymond
Byrum W. Teekell

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association*: Not applicable.

B. MIAMI INTERNATIONAL SECURITIES EXCHANGE, LLC

1. *Name*: Miami International Securities Exchange, LLC
Address: 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540

2. *Form of organization*: Limited Liability Company.

3. *Name of state, statute under which organized and date of incorporation*: Delaware, Delaware General Corporation Law (8 Del. C. § 101, et seq), on September 10, 2007.

4. *Brief description of nature and extent of affiliation:* Miami International Securities Exchange, LLC is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.

5. *Brief description of business or functions*: Miami International Securities Exchange, LLC ("MIAX") is registered as a National Securities Exchange under Section 6 of the Securities Exchange Act of 1934, as amended. MIAX operates a fully electronic options trading platform.

6. *A copy of the constitution*: Not applicable.

7. *A copy of the articles of incorporation or association including all amendments*: **The Amended and Restated Certificate of Formation dated June 17, 2011 is attached.**

8. *A copy of existing by-laws or corresponding rules or instruments*: **The Second Amended and Restated Limited Liability Company Agreement dated December 1, 2012, and Amended and Restated By-Laws dated May 20, 2016 are attached.**

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions:*

Officers of Miami International Securities Exchange, LLC

The following persons are the officers of Miami International Securities Exchange, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Paul Warner	Executive Vice President and Chief Financial Officer
Edward Deitzel	Executive Vice President, Chief Regulatory Officer and Chief Compliance Officer
Shelly Brown	Executive Vice President – Strategic Planning and Business Development
John Smollen	Executive Vice President – Head of Exchange Traded Products and Strategic Relations
Randy Foster	Senior Vice President – Business Systems Development
Harish Jayabalan	Senior Vice President – Chief Risk Officer & Chief Information Security Officer
Matthew Rotella	Senior Vice President – Chief Technology Officer
Joseph W. Ferraro III	Senior Vice President – Deputy General Counsel
Deborah Carroll	Senior Vice President, Associate General Counsel and Assistant Corporate Secretary
Richard Ross	Senior Vice President of Exchange Traded Products
Joseph S. Bracco	Senior Vice President – Head of Sales
Amy Neiley	Senior Vice President – Trading Operations and Listings
Roli Bhotika	Vice President – Head of Business Development
Rodney Hester	Vice President – Systems Infrastructure
Shawn Hughes	Vice President – Project Management
Lawrence O'Leary	Vice President – Market Surveillance
Laurence Gardner	Vice President – Regulatory Operations

Name	Title
James O'Neil	Vice President and Director of Physical Security and Safety
Vinay Rao	Vice President – Trading Systems Development
Siddharth Sahoo	Vice President – Trading Systems Development
Tia Toms	Vice President – Administration
Kelly Fitzgerald	Assistant Vice President – Controller
Christopher Solgan	Assistant Vice President – Senior Counsel
Gregory Ziegler	Assistant Vice President – Senior Associate Counsel

The officers of Miami International Securities Exchange, LLC serve until their successors are appointed in accordance with the By-Laws of Miami International Securities Exchange, LLC. Officers of Miami International Securities Exchange, LLC will serve at the direction of the Board of Directors.

Directors of Miami International Securities Exchange, LLC

The following persons are the directors and Board observers of Miami International Securities Exchange, LLC:

Directors
Thomas P. Gallagher
Talal Jassim Al-Bahar
Michael P. Ameen
Lindsay L. Burbage
Robert Castrignano
Marianne Deane
John DiBacco, Jr.
Meaghan Dugan
Kurt M. Eckert
Leslie Florio
Lawrence E. Jaffe
Paul Jiganti
John A. Kinahan
John E. McCormac
Miguel Moratiel
William J. O'Brien IV
Robert D. Prunetti
Joseph Sellitto
Cynthia Schwarzkopf
J. Gray Teekell

Observers
Guy Dowman
Lawrence Tanzman

Committees of Miami International Securities Exchange, LLC

The standing committees of the Board and the persons appointed to sit on the standing committees are as follows:

Audit Committee
Robert D. Prunetti (Chair)
Michael P. Ameen
John E. McCormac

Compensation Committee
J. Gray Teekell (Chair)
Robert D. Prunetti
Cynthia Schwarzkopf

Regulatory Oversight Committee
Lindsay L. Burbage (Chair)
Leslie Florio
Lawrence E. Jaffe

Appeals Committee
Lawrence Jaffe (Chair)
Robert Castrignano
Kurt M. Eckert

Technology Committee
Leslie Florio (Chair)
Robert Castrignano
Marianne Deane
Meaghan Dugan
Kurt M. Eckert
John A. Kinahan
John E. McCormac
William J. O'Brien IV
J. Gray Teekell

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association*: Not applicable.

C. MIAX PEARL, LLC

1. *Name*: MIAX PEARL, LLC
Address: 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540

2. *Form of organization*: Limited Liability Company.

3. *Name of state, statute under which organized and date of incorporation*: Delaware, Delaware General Corporation Law (8 Del. C. § 101, et seq), on February 11, 2016.

4. *Brief description of nature and extent of affiliation*: MIAX PEARL, LLC ("MIAX PEARL") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.

5. *Brief description of business or functions*: MIAX PEARL is registered as a National Securities Exchange under Section 6 of the Securities Exchange Act of 1934, as amended. MIAX PEARL operates a fully electronic options trading platform.

6. *A copy of the constitution*: Not applicable.

7. *A copy of the articles of incorporation or association including all amendments*: **The Certificate of Formation dated February 11, 2016 is attached.**

8. *A copy of existing by-laws or corresponding rules or instruments*: **The Amended and Restated Limited Liability Company Agreement dated December 5, 2016 and By-Laws dated December 5, 2016 are attached.**

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions*:

Officers of MIAX PEARL, LLC

The following persons are the officers of MIAX PEARL, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Paul Warner	Executive Vice President and Chief Financial Officer
Edward Deitzel	Executive Vice President, Chief Regulatory Officer and Chief Compliance Officer
Shelly Brown	Executive Vice President – Strategic Planning and Business Development
John Smollen	Executive Vice President – Head of Exchange Traded Products and Strategic Relations
Randy Foster	Senior Vice President – Business Systems Development
Harish Jayabalan	Senior Vice President – Chief Risk Officer & Chief Information Security Officer
Matthew Rotella	Senior Vice President – Chief Technology Officer
Joseph W. Ferraro III	Senior Vice President – Deputy General Counsel
Deborah Carroll	Senior Vice President, Associate General Counsel and Assistant Corporate Secretary
Richard Ross	Senior Vice President of Exchange Traded Products
Joseph S. Bracco	Senior Vice President – Head of Sales
Amy Neiley	Senior Vice President – Trading Operations and Listings
Roli Bhotika	Vice President – Head of Business Development
Rodney Hester	Vice President – Systems Infrastructure
Shawn Hughes	Vice President – Project Management
Lawrence O'Leary	Vice President – Market Surveillance
Laurence Gardner	Vice President – Regulatory Operations
James O'Neil	Vice President and Director of Physical Security and Safety
Vinay Rao	Vice President – Trading Systems Development
Siddharth Sahoo	Vice President – Trading Systems Development
Tia Toms	Vice President – Administration
Kelly Fitzgerald	Assistant Vice President – Controller
Christopher Solgan	Assistant Vice President – Senior Counsel
Gregory Ziegler	Assistant Vice President – Senior Associate Counsel

Directors of MIAX PEARL, LLC

The following persons are the directors of MIAX PEARL, LLC:

Name
Thomas P. Gallagher
William T. Bergman
Lindsay L. Burbage
Kurt M. Eckert
Leslie Florio
Michael Harrington
Richard Herr
Lawrence E. Jaffe
Sebastiaan Koeling
Benjamin Londergan
Mark I. Massad
John E. McCormac
Robert D. Prunetti
Cynthia Schwarzkopf

Committees of MIAX PEARL, LLC

The standing committees of the Board and the persons appointed to sit on the standing committees are as follows:

Compensation Committee
Cynthia Schwarzkopf (Chair)
William T. Bergman
Robert D. Prunetti

Audit Committee
Robert D. Prunetti (Chair)
John E. McCormac
Cynthia Schwarzkopf

Regulatory Oversight Committee
Lindsay L. Burbage (Chair)
Leslie Florio
Lawrence E. Jaffe

Appeals Committee
Lawrence E. Jaffe (Chair)
Kurt M. Eckert
Richard Herr

Technology Committee
Leslie Florio (Chair)
John E. McCormac
Kurt Eckert

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association*: Not applicable.

D. MIAMI INTERNATIONAL TECHNOLOGIES, LLC

1. *Name*: Miami International Technologies, LLC
   Address: 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540

2. *Form of organization*: Limited Liability Company.

3. *Name of state, statute under which organized and date of incorporation*: Delaware, Delaware General Corporation Law (8 Del. C. § 101, et seq), on May 12, 2010.

4. *Brief description of nature and extent of affiliation*: Miami International Technologies, LLC ("MIAX Technologies") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.

5. *Brief description of business or functions*: MIAX Technologies engages in the sale and licensing of trading and information technology to unrelated third parties.

6. *A copy of the constitution*: Not applicable.

7. *A copy of the articles of incorporation or association including all amendments*: **The Amended and Restated Certificate of Formation dated June 29, 2011 is attached.**

8. *A copy of existing by-laws or corresponding rules or instruments*: **The First Amended and Restated Limited Liability Company Agreement dated May 20, 2011 is attached.**

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions*:

Officers of Miami International Technologies, LLC

The following persons are the officers of Miami International Technologies, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	President and Chief Information Officer
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Paul Warner	Executive Vice President and Chief Financial Officer
Matthew Rotella	Senior Vice President – Chief Technology Officer
Randy Foster	Senior Vice President – Business Systems Development
Deborah Carroll	Senior Vice President – Associate General Counsel
Rodney Hester	Vice President – Systems Infrastructure
Harish Jayabalan	Vice President – Technical Support and Product Specialist
Tia Toms	Vice President – Administration
James O'Neil	Vice President and Director of Physical Security and Safety
Kelly Fitzgerald	Assistant Vice President – Controller

Directors of Miami International Technologies, LLC

The following persons are the directors of Miami International Technologies, LLC:

Name
Thomas P. Gallagher

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association*: Not applicable.

E. MIAX GLOBAL, LLC

1. *Name*: MIAX Global, LLC
Address: 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540

2. *Form of organization*: Limited Liability Company.

3. *Name of state, statute under which organized and date of incorporation*: Delaware, Delaware General Corporation Law (8 Del. C. § 101, et seq), on June 30, 2015.

4. *Brief description of nature and extent of affiliation*: MIAX Global, LLC ("MIAX Global") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.

5. *Brief description of business or functions*: MIAX Global focuses on the company's trading, technology and other projects primarily based outside of North America, initially focusing on Europe and Latin America.

6. *A copy of the constitution*: Not applicable.

7. *A copy of the articles of incorporation or association including all amendments*: **The Certificate of Formation dated June 30, 2015 is attached.**

8. *A copy of existing by-laws or corresponding rules or instruments*: **The Limited Liability Company Agreement dated June 30, 2015 is attached.**

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions*:

Officers of MIAX Global, LLC

The following persons are the officers of MIAX Global, LLC:

Name	**Title**
Thomas P. Gallagher	Chairman and Chief Executive Officer
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Paul Warner	Executive Vice President and Chief Financial Officer

Directors of MIAX Global, LLC

The following persons are the directors of MIAX Global, LLC:

Name
Thomas P. Gallagher

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association*: Not applicable.

F. MIAMI INTERNATIONAL FUTURES EXCHANGE, LLC

1. *Name*: Miami International Futures Exchange, LLC
   Address: 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540

2. *Form of organization*: Limited Liability Company.

3. *Name of state, statute under which organized and date of incorporation*: Delaware, Delaware General Corporation Law (8 Del. C. § 101, et seq), on November 30, 2007.

4. *Brief description of nature and extent of affiliation*: Miami International Futures Exchange, LLC ("MIAX Futures") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.

5. *Brief description of business or functions*: MIAX Futures is not yet active. Miami International Holdings, Inc. may develop MIAX Futures as a futures exchange under the regulation of the CFTC. If MIAX Futures becomes operational, it will perform functions performed by a futures exchange.

6. *A copy of the constitution*: Not applicable.

7. *A copy of the articles of incorporation or association including all amendments*: **The Amended and Restated Certificate of Formation dated June 17, 2011 is attached.**

8. *A copy of existing by-laws or corresponding rules or instruments*: **The First Amended and Restated Limited Liability Company Agreement dated May 20, 2011 is attached.**

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions*:

Officers of Miami International Futures Exchange, LLC

The following persons are the officers of Miami International Futures Exchange, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary

Directors of Miami International Futures Exchange, LLC

The following persons are the directors of Miami International Futures Exchange, LLC:

Name
Thomas P. Gallagher

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association*: Not applicable.

G. MIAX PRODUCTS, LLC

1. *Name*: MIAX Products, LLC
Address: 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540

2. *Form of organization*: Limited Liability Company.

3. *Name of state, statute under which organized and date of incorporation*: Illinois, Illinois Limited Liability Company Act, 805 ILCS 180/, on January 25, 2019.

4. *Brief description of nature and extent of affiliation*: MIAX Products, LLC ("MIAX Products") is wholly-owned by Miami International Holdings, Inc., which is the applicant's 100% owner.

5. *Brief description of business or functions*: Development of financial products.

6. *A copy of the constitution*: Not applicable.

7. *A copy of the articles of incorporation or association including all amendments*: **The Articles of Organization dated January 25, 2019 are attached.**

8. *A copy of existing by-laws or corresponding rules or instruments*: **The Limited Liability Company Agreement dated January 25, 2019 is attached.**

9. *The name and title of the present officers, governors, members of all standing committees, or persons performing similar functions*:

Officers of MIAX Products, LLC

The following persons are the officers of MIAX Products, LLC:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Paul Warner	Executive Vice President and Chief Financial Officer

Directors of MIAX Products, LLC

The following persons are the directors of MIAX Products, LLC:

Name
Thomas P. Gallagher

10. *An indication of whether such business or organization ceased to be associated with the applicant during the previous year, and a brief statement of the reasons for termination of the association*: Not applicable.

A

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF MIAMI INTERNATIONAL HOLDINGS, INC.

MIAMI INTERNATIONAL HOLDINGS, INC., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), in accordance with the provisions of Section 245 of the General Corporation Law of the State of Delaware, hereby certifies as follows:

1. The Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on November 14, 2007.

2. An Amended and Restated Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on January 22, 2008.

3. An Amended and Restated Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on May 15, 2008.

4. A Certificate of Designation for the Series B Preferred Stock of the Corporation was filed with the Secretary of State of the State of Delaware on May 30, 2008.

5. A Certificate of Designation for the Series A Preferred Stock of the Corporation was filed with the Secretary of State of the State of Delaware on June 4, 2008.

6. A Certificate of Increase of Shares Designated as Series B Preferred Stock of the Corporation was filed with the Secretary of State of the State of Delaware on November 1, 2010.

7. A Certificate of Elimination for the Series A Preferred Stock of the Corporation was filed with the Secretary of State of the State of Delaware on November 1, 2010.

8. A Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on November 9, 2010.

9. An Amended and Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on August 31, 2012.

10. This Amended and Restated Certificate of Incorporation of the Corporation amends and restates the Restated Certificate of Incorporation of the Corporation as set forth in Exhibit A attached hereto. This Amended and Restated Certificate of Incorporation of the Corporation was duly adopted in accordance with Section 242 and 245 of the General Corporation Law of the State of Delaware.

11. The text of this Amended and Restated Certificate of Incorporation of the Corporation is set forth in Exhibit A attached hereto and made a part hereof.

IN WITNESS WHEREOF, Miami International Holdings, Inc. has caused this Amended and Restated Certificate of Incorporation to be executed by its duly authorized officer on this 15th day of October, 2015.

MIAMI INTERNATIONAL HOLDINGS, INC.

By: Barbara J. Comly

Barbara J. Comly
EVP, General Counsel and Corporate Secretary

State of Delaware
Secretary of State
Division of Corporations
Delivered 10:00 AM 10/16/2015
FILED 10:00 AM 10/16/2015
SR 20150535314 - File Number 4457259

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF MIAMI INTERNATIONAL HOLDINGS, INC.

FIRST: The name of the Corporation is Miami International Holdings, Inc. (hereinafter the "Corporation").

SECOND: The address of the registered office of the Corporation in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle. The name of its registered agent at that address is The Corporation Trust Company.

THIRD: The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware as set forth in Title 8 of the Delaware Code (the "GCL").

FOURTH: A. The total number of shares of stock which the Corporation shall have authority to issue is 625,000,000 shares which are to be divided as follows:

(i) 400,000,000 shares of voting common stock, par value $.001 per share designated as "Common Stock";

(ii) 200,000,000 shares of nonvoting common stock, par value $.001 per share designated as "Nonvoting Common Stock"; and

(iii) 25,000,000 shares of preferred stock, par value $.001 per share designated as "Preferred Stock".

Except as set forth in this Article Fourth, the Common Stock and the Nonvoting Common Stock (together herein, the "Common Shares") shall have the same rights and privileges and shall rank equally, share ratably and be identical in all respects as to all corporate matters.

(a) **Voting**. Except as may be provided in this Amended and Restated Certificate of Incorporation or as required by law, the Common Stock shall have voting rights in the election of directors and on all other matters presented to stockholders, with each holder of Common Stock being entitled to one vote for each share of Common Stock held of record by such holder on such matters. The Nonvoting Common Stock shall have no voting rights other than such rights as may be required by the first sentence of Section 242(b)(2) of the GCL or any similar provision hereafter enacted; provided, that an amendment of this Amended and Restated Certificate of Incorporation to increase or decrease the number of authorized shares of Nonvoting Common Stock (but not below the number of shares thereof then outstanding) may be adopted by resolution adopted by the Board of Directors of the Corporation and approved by the affirmative vote of the holders of a majority of the voting power of all outstanding shares of Common Stock of the Corporation and all other outstanding shares of stock of the Corporation entitled to vote thereon irrespective of the provisions of Section 242(b)(2) of the GCL or any similar provision hereafter enacted, with such outstanding shares of Common Stock and other

stock considered for this purpose as a single class, and no vote of the holders of any shares of Nonvoting Common Stock, voting separately as a class, shall be required therefor.

(b) **Dividends**. Subject to the rights of the holders of any series of Preferred Stock, holders of Common Stock and holders of Nonvoting Common Stock shall be entitled to receive such dividends and distributions (whether payable in cash or otherwise) as may be declared on the Common Shares by the Board of Directors of the Corporation from time to time out of assets or funds of the Corporation legally available therefore; provided, that the Board of Directors of the Corporation shall declare no dividend, and no dividend shall be paid, with respect to any outstanding share of Common Stock or Nonvoting Common Stock, whether in cash or otherwise (including any dividend in shares of Common Stock on or with respect to shares of Common Stock or any dividend in shares of Nonvoting Common Stock on or with respect to shares of Nonvoting Common Stock (collectively, "Stock Dividends")), unless, simultaneously, the same dividend is declared or paid with respect to each share of Common Stock and Nonvoting Common Stock. The declaration of Stock Dividends shall be subject to the provisions set forth in Article Ninth below and if the Corporation declares any Stock Dividends and such declaration would violate the provisions of Article Ninth with respect to any stockholder, then the Corporation shall only issue to such stockholder a certificate or certificates for the maximum amount of Stock Dividends that may be issued that would not violate the provisions of Article Ninth. The Corporation shall issue any Stock Dividends in full to any stockholder where such declaration would not violate the provisions of Article Ninth. If a Stock Dividend is declared or paid with respect to one class, then a Stock Dividend shall likewise be declared or paid with respect to the other class and shall consist of shares of such other class in a number that bears the same relationship to the total number of shares of such other class, issued and outstanding immediately prior to the payment of such dividend, as the number of shares comprising the Stock Dividend with respect to the first-referenced class bears to the total number of shares of such first-referenced class, issued and outstanding immediately prior to the payment of such dividend. Stock Dividends with respect to Common Stock may be paid only with shares of Common Stock. Stock Dividends with respect to Nonvoting Common Stock may be paid only with shares of Nonvoting Common Stock. Notwithstanding the foregoing, in the case of any dividend in the form of capital stock of a subsidiary of the Corporation, the capital stock of the subsidiary distributed to holders of Common Stock shall be identical to the capital stock of the subsidiary distributed to holders of Nonvoting Common Stock, except that the capital stock distributed to holders of Common Stock may have full or any other voting rights and the capital stock distributed to holders of Nonvoting Common Stock shall be non-voting to the same extent as the Nonvoting Common Stock is non-voting.

(c) **Subdivisions, Combinations and Mergers**. If the Corporation shall in any manner split, subdivide or combine the outstanding shares of Common Stock or the outstanding shares of Nonvoting Common Stock, the outstanding shares of the other such class of the Common Shares shall likewise be split, subdivided or combined in the same manner proportionately and on the same basis per share. In the event of any merger, statutory share exchange, consolidation or similar form of corporate transaction involving the Corporation (whether or not the Corporation is the surviving entity), the holders of Common Stock and the holders of Nonvoting Common Stock shall be entitled to receive the same per share consideration, if any, except that any securities received by holders of Common Stock in consideration of such stock may have full or any other voting rights and any securities received

by holders of Nonvoting Common Stock in consideration of such stock shall be non-voting to the same extent as the Nonvoting Common Stock is non-voting.

(d) **Rights on Liquidation**. Subject to the rights of the holders of any series of Preferred Stock, in the event of any liquidation, dissolution or winding-up of the Corporation (whether voluntary or involuntary), the assets of the Corporation available for distribution to stockholders shall be distributed in equal amounts per share to the holders of Common Stock and the holders of Nonvoting Common Stock, as if such classes constituted a single class. For purposes of this subsection (d), a merger, statutory share exchange, consolidation or similar corporate transaction involving the Corporation (whether or not the Corporation is the surviving entity), or the sale, transfer or lease by the Corporation of all or substantially all its assets, shall not constitute or be deemed a liquidation, dissolution or winding-up of the Corporation.

(e) **Conversion of Nonvoting Common Stock**.

(i) **Optional Conversion.** Subject to the provisions set forth in Article Ninth below, each one share of the Nonvoting Common Stock will be convertible at the option of the holder thereof into one fully paid and non-assessable share of Common Stock, subject to adjustment as provided in this Article Fourth. If any stockholder purports to convert any shares of Nonvoting Common Stock that would violate the provisions of Article Ninth, then the Corporation shall only issue to such stockholder a certificate or certificates for the maximum number of shares of Common Stock that may be issued that would not violate the provisions of Article Ninth.

(ii) **Mechanics of Optional Conversion**. The holder of any certificate for Nonvoting Common Stock shall be entitled to request conversion of all or part of its Nonvoting Common Stock at any time by delivering a written notice to the attention of the Secretary or Treasurer of the Corporation at the Corporation's principal place of business of its desire to convert its Nonvoting Common Stock and receive a replacement certificate or certificates therefor, specifying the number of shares of Nonvoting Common Stock to be so converted and the holder's calculation of the Nonvoting Conversion Rate. In the event of any disagreement between the Corporation and the holder as to the correct Nonvoting Conversion Rate, the Nonvoting Conversion Rate will be finally determined by an investment banking or brokerage firm with no material prior or current relationship with the Corporation or any of its subsidiaries selected by the Board in good faith, the fees and expenses of which will be paid by the Corporation. The Corporation will, promptly upon receipt of all certificates representing Nonvoting Common Stock of such holder that are to be converted, issue a certificate or certificates registering the appropriate number of shares of Common Stock to such holder. Upon optional conversion as set forth in Subsection (e)(i), the shares of Nonvoting Common Stock so converted shall be eliminated, and thereafter such shares of Nonvoting Common Stock shall become and be known as shares of "Common Stock" without further action on the part of the holder thereof. "Nonvoting Conversion Rate" means the number of shares of Common Stock into which each share of Nonvoting Common Stock may be converted.

(iii) **Reservation of Stock Issuable Upon Conversion**. The Corporation will at all times reserve and keep available out of its authorized but unissued shares of

Common Stock solely for the purpose of effecting the conversion of the shares of the Nonvoting Common Stock, such number of its shares of Common Stock as will from time to time be sufficient to effect the conversion of all then-outstanding shares of the Nonvoting Common Stock; and if at any time the number of authorized but unissued shares of Common Stock will not be sufficient to effect the conversion of all then-outstanding shares of the Nonvoting Common Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as will be sufficient for such purpose.

B. The Board of Directors of the Corporation is authorized, subject to limitations prescribed by law and the provisions of this Article Fourth, to provide for the issuance from time to time in one or more series of any number of the shares of Preferred Stock, and, by filing a certificate pursuant to the GCL, to establish the number of shares to be included in each such series, and to fix the designation, relative rights, preferences, qualifications and limitations of the shares of each such series.

The authority of the Board of Directors with respect to each such series shall include, but not be limited to, determination of the following:

(a) The number of shares constituting that series and distinctive designation of that series;

(b) The dividend rate on the shares of that series, whether dividends shall be cumulative, and, if so, from which date or dates, and whether they shall be payable in preference to, or in another relation to, the dividends payable on any other class or classes or series of stock;

(c) Whether that series shall have voting rights, in addition to the voting rights provided by law, and, if so, the terms of such voting rights;

(d) Whether that series shall have conversion privileges, and, if so, the terms and conditions of such conversion, including provision for adjustment of the conversion rate in such events as the Board of Directors shall determine;

(e) Whether or not the shares of that series shall be redeemable, and, if so, the terms and conditions of such redemption, including the manner of selecting shares for redemption if less than all shares are to be redeemed, the date or dates upon or after which they shall be redeemable, and the amount per share payable in case of redemption, which amount may vary under different conditions and at different redemption dates;

(f) Whether that series shall be entitled to the benefit of a sinking fund to be applied to the purchase or redemption of shares of that series, and, if so, the terms and amounts of such sinking fund;

(g) The rights of the shares of that series in the event of a voluntary or involuntary liquidation, dissolution or winding up of the Corporation and whether such rights

shall be in preference to, or in another relation to, the comparable rights of any other class or classes or series of stock; and

(h) Any other relative rights, preferences and limitations of that series.

Dividends on outstanding shares of Preferred Stock shall be paid or declared and set apart for payment before any dividends shall be paid or declared and set apart for payment on the shares of Common Stock or Nonvoting Common Stock with respect to the same dividend period.

If upon any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the assets available for distribution to holders of shares of Preferred Stock of all series shall be insufficient to pay such holders the full preferential amount to which they are entitled, then such assets shall be distributed ratably among the shares of all series of Preferred Stock in accordance with the respective preferential amounts (including unpaid cumulative dividends, if any) payable with respect thereto.

C. The first series of Preferred Stock designated as "Series A Preferred Stock" was eliminated by the filing of a Certificate of Elimination with respect to the Series A Preferred Stock with the Secretary of State of the State of Delaware on November 1, 2010.

D. The second series of Preferred Stock was designated as "Series B Preferred Stock" by the filing of a Certificate of Designation with respect to the Series B Preferred Stock with the Secretary of State of the State of Delaware on May 30, 2008. The number of shares designated was increased by the filing of a Certificate of Increase with respect to the Series B Preferred Stock with the Secretary of State of the State of Delaware on November 1, 2010. The designation, number of shares designated and the powers, preferences and relative participating, optional and other special rights and the qualifications, limitations and restrictions thereof are as follows:

SERIES B PREFERRED STOCK

1. **Certain Defined Terms, etc.** In addition to the terms defined elsewhere herein, certain capitalized terms used in this Article Fourth Section D have the meanings given to them in Article Fourth, Section D, Section 10. References in this Article Fourth Section D to Sections are, unless otherwise stated, references to Sections herein.

2. **Designation**. Of the 25,000,000 shares of Preferred Stock, par value $.001 per share, that the Corporation is authorized to issue, there are hereby designated Ten Million (10,000,000) as "Series B Preferred Stock" having the powers, preferences and relative participating, optional and other special rights and the qualifications, limitations and restrictions set forth in this Article Fourth Section D (the "Series B Preferred").

3. **Dividends and Distributions**. The Series B Preferred shall be entitled to receive dividends and distributions, at the same time and in the same manner as the Common Stock, and in an amount per share equal to the amount per share that the shares of Common Stock into which such Series B Preferred are convertible would have been

entitled to receive if such Series B Preferred had been so converted into Common Stock as of the record date established for determining holders entitled to dividends, or if no such record date is established, as of the time of declaration of any such dividend or distribution.

4. **Voting Rights**. (a) The Series B Preferred will have the right to vote or consent in writing as set forth in this Section 4.

(b) As long as any shares of Series B Preferred are outstanding, the affirmative vote or consent of the holders of two-thirds of the then-outstanding shares of Series B Preferred, voting as a separate class, will be required in order for the Corporation to:

(i) amend, alter or repeal, whether by merger, consolidation or otherwise, the terms of this Article Fourth Section D or any other provision of the Charter or Bylaws of the Corporation (the "Bylaws"), in any way that adversely affects any of the powers, designations, preferences and relative, participating, optional and other special rights of the Series B Preferred, and the qualifications, limitations or restrictions thereof;

(ii) subdivide or otherwise change shares of Series B Preferred into a different number of shares whether in a merger, consolidation, combination, recapitalization, reorganization or otherwise (whether or not any provision of Section 6 is applicable to such transaction); or

(iii) issue any shares of Series B Preferred other than in accordance with this Article Fourth Section D.

(c) The Series B Preferred shall have no right to vote or consent on any matters submitted to a vote of the Common Stock, except as otherwise provided by the GCL.

(d) Notwithstanding any other provision of the Charter or Bylaws, the holders of a majority, or greater number if so required by the Charter or the GCL, of the then-outstanding Series B Preferred may consent in writing to any matter for which a class vote is contemplated, which written consent when so executed by the holders of a majority, or such greater number required, of the then-outstanding Series B Preferred will be deemed, subject to applicable Delaware law, to satisfy the applicable voting requirements.

5. **Reacquired Shares**. Any shares of Series B Preferred that are converted, purchased or otherwise acquired by the Corporation in any manner whatsoever shall be retired and canceled promptly after the acquisition thereof. None of such shares of Series B Preferred shall be reissued by the Corporation.

6. **Liquidation, Dissolution or Winding Up**. Upon any liquidation, dissolution or winding up of the Corporation, the holders of shares of Series B Preferred shall be entitled to receive the same distribution paid to the holders of Common Stock, on

an as-converted basis. Neither a consolidation or merger of the Corporation with another corporation or other legal entity, nor a sale or transfer of all or part of the Corporation's assets for cash, securities or other property will be considered a liquidation, dissolution or winding up of the Corporation for purposes of this Section 6.

7. **Conversion**. (a) **Optional Conversion**. Subject to the provisions set forth in Article Ninth, each one share of the Series B Preferred will be convertible at the option of the holder thereof into one fully paid and non-assessable share of Common Stock, subject to adjustment as described below, upon a Fundamental Transaction. If any stockholder purports to convert any shares of Series B Preferred that would violate the provisions of Article Ninth, then the Corporation shall only issue to such stockholder a certificate or certificates for the maximum number of shares of Common Stock that may be issued that would not violate the provisions of Article Ninth. A "Fundamental Transaction" shall mean a Public Company Event, a merger or consolidation of the Corporation with or into another corporation or other legal entity, or the sale of all or substantially all of the Corporation's properties and assets to any other Person which is effected so that holders of Common Stock are entitled to receive (either directly or upon subsequent liquidation) stock, securities or assets with respect to or in exchange for Common Stock. For purposes of this Article Fourth Section D, "A Public Company Event" means an initial firm commitment underwritten offering to the public of the Company's Common Stock pursuant to a registration statement under the Securities Act of 1933, as amended or the registration of the Company's Common Stock under the Securities Exchange Act of 1934, as amended (the "Act").

(b) **Mechanics of Optional Conversion**. The holder of any certificate for Series B Preferred shall be entitled to request conversion of all or part of its Series B Preferred at any time as provided in Section 7(a), by delivering a written notice to the attention of the Secretary or Treasurer of the Corporation at the Corporation's principal place of business of its desire to convert its Series B Preferred and receive a replacement certificate or certificates therefor, specifying the number of shares of Series B Preferred to be so converted and the holder's calculation of the Conversion Rate. In the event of any disagreement between the Corporation and the holder as to the correct Conversion Rate, the Conversion Rate will be finally determined by an investment banking or brokerage firm with no material prior or current relationship with the Corporation or any of its subsidiaries selected by the Board in good faith, the fees and expenses of which will be paid by the Corporation. The Corporation will, promptly upon receipt of all certificates representing Series B Preferred of such holder that are to be converted, issue a certificate or certificates registering the appropriate number of shares of Common Stock to such holder. Upon optional conversion as set forth in Section 7 (a), the shares of Series B Preferred so converted shall be eliminated, and thereafter such shares of Series B Preferred shall become and be known as shares of "Common Stock" without further action on the part of the holder thereof.

(c) **Adjustment for Subdivisions or Combinations of Common Stock**. In the event that the Corporation at any time or from time to time after the issuance of the Series B Preferred effects a subdivision, dividend payable in shares of capital stock, combination or other similar transaction of its outstanding Common Stock

into a greater or lesser number of shares, then and in each such event the Conversion Rate will be increased or decreased proportionately.

(d) **Reorganization, Merger, Consolidation or Sale of Assets**. If at any time or from time to time there shall be a capital reorganization of the Common Stock (other than a subdivision, combination, or dividend payable in shares provided for elsewhere in this Section 7) or a merger or consolidation of the Corporation with or into another corporation or other legal entity, or the sale of all or substantially all of the Corporation's properties and assets to any other Person which is effected so that holders of Common Stock are entitled to receive (either directly or upon subsequent liquidation) stock, securities or assets with respect to or in exchange for Common Stock, then as a part of such capital reorganization, merger, consolidation or sale, proper provision will be made so that each holder of Series B Preferred will thereafter be entitled to receive upon conversion of the Series B Preferred the same number of shares of stock, securities or assets of the Corporation, or of the successor corporation or other legal entity resulting from such merger or consolidation or sale, which such holder would have been entitled to receive on such capital reorganization, merger, consolidation or sale if such holder's Series B Preferred had been converted into Common Stock immediately prior to the record date established for determining holders entitled to such distribution, or if no such record date is established, as of the time of such transaction. In any such case, appropriate adjustment will be made in the application of the provisions of this Section 7(d) with respect to the rights of the holders of the Series B Preferred after the reorganization, merger, consolidation or sale to the end that the provisions of this Section 7(d) (including adjustment of the Conversion Rate then in effect) will be applicable after that event as nearly equivalent as may be practicable. This provision will apply to successive capital reorganizations, mergers, consolidations or sales.

(e) **No Adjustment**. No adjustment to the Conversion Rate will be made if such adjustment would result in a change in the Conversion Rate of less than 0.001%. Any adjustment of less than 0.001% which is not made will be carried forward and will be made at the time of and together with any subsequent adjustment which, on a cumulative basis, amounts to an adjustment of 0.001% or more in the Conversion Rate.

(f) **Certificate as to Adjustments**. Upon the occurrence of each adjustment or readjustment of the Conversion Rate pursuant to this Section 7, the Corporation at its expense will promptly compute such adjustment or readjustment in accordance with the terms hereof and cause independent public accountants selected by the Corporation to verify such computation and prepare and furnish to each holder of Series B Preferred a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation will, upon the written request at any time of any holder of Series B Preferred, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Conversion Rate at that time in effect, and (iii) the amount, if any, of other property which at that time would be received upon the conversion of Series B Preferred.

(g) **Reservation of Stock Issuable Upon Conversion**. The Corporation will at all times reserve and keep available out of its authorized but unissued shares of Common Stock solely for the purpose of effecting the conversion of the shares of the Series B Preferred, such number of its shares of Common Stock as will from time to time be sufficient to effect the conversion of all then-outstanding shares of the Series B Preferred; and if at any time the number of authorized but unissued shares of Common Stock will not be sufficient to effect the conversion of all then-outstanding shares of the Series B Preferred, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as will be sufficient for such purpose.

8. **Rank**. The Series B Preferred will rank on a parity with the Common Stock as to any distributions or upon liquidation, dissolution or winding up.

9. **Notice to Holders**. Any notice given by the Corporation to holders of record of Series B Preferred will be effective if addressed to such holders at their last addresses as shown on the stock books of the Corporation and deposited in the U.S. mail, sent first-class, and will be conclusively presumed to have been duly given, whether or not the holder of the Series B Preferred receives such notice.

10. **Certain Defined Terms**. In addition to the terms defined elsewhere in this Article Fourth Section D, the following terms will have the following meanings when used herein with initial capital letters:

"Conversion Rate" means the number of shares of Common Stock into which each share of Series B Preferred may be converted; and

"Person" means any individual, firm, corporation or other entity and includes any successor (whether by merger or otherwise) of such entity.

FIFTH: The Corporation is to have perpetual existence.

SIXTH: The following provisions are inserted for the management of the business and the conduct of the affairs of the Corporation, and for further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders:

(a) The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors.

(b) The directors shall have concurrent power with the stockholders to make, alter, amend, change, add to or repeal the By-Laws of the Corporation.

(c) The number of directors of the Corporation shall be as from time to time fixed by, or in the manner provided in, the By-Laws of the Corporation. Election of directors need not be by written ballot unless the By-Laws so provide.

(d) No director shall be personally liable to the Corporation or any of its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability

(i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) pursuant to Section 174 of the GCL or (iv) for any transaction from which the director derived an improper personal benefit. Any repeal or modification of this Article Sixth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification with respect to acts or omissions occurring prior to such repeal or modification.

(e) In addition to the powers and authority hereinbefore or by statute expressly conferred upon them, the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, subject, nevertheless, to the provisions of the GCL, this Amended and Restated Certificate of Incorporation, and any By-Laws adopted by the stockholders; provided, however, that no By-Laws hereafter adopted by the stockholders shall invalidate any prior act of the directors which would have been valid if such By-Laws had not been adopted.

SEVENTH: Meetings of stockholders may be held within or without the State of Delaware, as the By-Laws may provide. The books of the Corporation may be kept (subject to any provision contained in the GCL) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the By-Laws of the Corporation.

EIGHTH: The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation. For so long as this Corporation shall control, directly or indirectly, one or more national securities exchange (each, a "Controlled National Securities Exchange"), including but not limited to Miami International Securities Exchange, LLC, or facility thereof, before any amendment to or repeal of any provision of this Amended and Restated Certificate of Incorporation shall be effective, those changes shall be submitted to the Board of Directors of each Controlled National Securities Exchange and if the same must be filed with or filed with and approved by the United States Securities and Exchange Commission (the "Commission") before the changes may be effective, under Section 19 of the Act and the rules promulgated under that Act by the Commission or otherwise, then the proposed changes to the Amended and Restated Certificate of Incorporation of this Corporation shall not be effective until filed with or filed with and approved by the Commission, as the case may be.

NINTH: In addition to any limitations on the transfer of shares of the Corporation's capital stock set forth in the By-Laws of the Corporation, the following shall apply to the fullest extent permitted by law for so long as this Corporation shall control, directly or indirectly, a Controlled National Securities Exchange, except as provided in clause (b)(ii) below:

(a) **Definitions**. As used in this Article Ninth:

(i) The term "Person" shall mean a natural person, partnership, corporation, limited liability company, entity, government, or political subdivision, agency or instrumentality of a government;

(ii) The term "Related Persons" shall mean with respect to any Person: (A) any "affiliate" of such Person (as such term is defined in Rule 12b-2 under the Act); (B) any other Person with which such first Person has any agreement, arrangement or understanding (whether or not in writing) to act together for the purpose of acquiring, voting, holding or disposing of shares of the capital stock of the Corporation; (C) in the case of a Person that is a company, corporation or similar entity, any executive officer (as defined under Rule 3b-7 under the Act) or director of such Person and, in the case of a Person that is a partnership or limited liability company, any general partner, managing member or manager of such Person, as applicable; (D) in the case of any Person that is a registered broker or dealer that has been admitted to membership in a Controlled National Securities Exchange (an "Exchange Member"), any Person that is associated with the Exchange Member (as determined using the definition of "person associated with a member" as defined under Section 3(a)(21) of the Act); (E) in the case of a Person that is a natural person and Exchange Member, any broker or dealer that is also an Exchange Member with which such Person is associated; (F) in the case of a Person that is a natural person, any relative or spouse of such Person, or any relative of such spouse who has the same home as such Person or who is a director or officer of the Corporation or any of its parents or subsidiaries; (G) in the case of a Person that is an executive officer (as defined under Rule 3b-7 under the Act) or a director of a company, corporation or similar entity, such company, corporation or entity, as applicable; and (H) in the case of a Person that is a general partner, managing member or manager of a partnership or limited liability company, such partnership or limited liability company, as applicable; and

(iii) The term "beneficially owned", "own beneficially" or any derivative thereof shall have the meaning set forth in Rule 13d-3 under the Act.

(b) **Limitations.**

(i) For so long as the Corporation shall control, directly or indirectly, a Controlled National Securities Exchange, except as provided in clauses (ii) (A) and (ii) (B) below:

(A) No Person, either alone or together with its Related Persons, may own, directly or indirectly, of record or beneficially, shares constituting more than forty percent (40%) of any class of capital stock of the Corporation;

(B) No Exchange Member, either alone or together with its Related Persons, may own, directly or indirectly, of record or beneficially, shares constituting more than twenty percent (20%) of any class of capital stock of the Corporation; and

(C) No Person, either alone or together with its Related Persons, at any time may, directly, indirectly or pursuant to any voting trust, agreement, plan or other arrangement, vote or cause the voting of shares of the capital stock of the Corporation or give any consent or proxy with respect to shares representing more than twenty percent (20%) of the voting power of the then issued and outstanding capital stock of the Corporation, nor may any Person, either alone or together with its Related Persons, enter into any agreement, plan or other arrangement with any other Person, either alone or together with its Related Persons, under circumstances that would result in the shares of capital stock of the Corporation that are subject to such agreement, plan or other arrangement not being voted on any matter or matters or any proxy relating thereto being withheld, where the effect of such agreement, plan or other arrangement would be to enable any Person, either alone or together with its Related Persons, to vote, possess the right to vote or cause the voting of shares of the capital stock of the Corporation which would represent more than twenty percent (20%) of said voting power.

(ii) Subject to clauses (iii) and (iv) below:

(A) The limitations in clause (i)(A) and (i)(C) above shall not apply in the case of any class of stock that does not have the right by its terms to vote in the election of members of the Board of Directors of the Corporation or on other matters that may require the approval of the holders of voting shares of the Corporation (other than matters affecting the rights, preferences or privileges of said class of stock); and

(B) The limitations in clauses (i)(A) and (i)(C) (except with respect to Exchange Members and their Related Persons) may be waived by the Board of Directors of the Corporation pursuant to a resolution duly adopted by the Board of Directors, if, in connection with the taking of such action, the Board of Directors adopts a resolution stating that it is the determination of such Board that such action will not impair the ability of the Controlled National

Securities Exchange to carry out its functions and responsibilities as an "exchange" under the Act, and the rules and regulations promulgated thereunder; that it is otherwise in the best interests of the Corporation, its stockholders and the Controlled National Securities Exchange and that it will not impair the ability of the Commission to enforce the Act and the rules and regulations promulgated thereunder, and such resolution shall not be effective until it is filed with and approved by the Commission. In making the determinations referred to in the immediately preceding sentence, the Board of Directors may impose on the Person in question and its Related Persons such conditions and restrictions as it may in its sole discretion deem necessary, appropriate or desirable in furtherance of the objectives of the Act and the rules and regulations promulgated thereunder, and the governance of the Controlled National Securities Exchange.

(iii) Notwithstanding clauses (ii)(A) and (ii)(B) above, in any case where a Person, either alone or together with its Related Persons, would own or vote more than any of the above percentage limitations upon consummation of any proposed sale, assignment or transfer of the Corporation's capital stock, such sale, assignment or transfer shall not become effective until the Board of Directors of the Corporation shall have determined, by resolution, that such Person and its Related Persons are not subject to any applicable "statutory disqualification" (within the meaning of Section 3(a)(39) of the Act).

(iv) Notwithstanding clauses (ii)(A) and (ii)(B) above, and without giving effect to the same, any Person that either alone or together with its Related Persons proposes to own, directly or indirectly, of record or beneficially, shares of the capital stock of the Corporation constituting more than forty percent (40%) of the outstanding shares of any class of capital stock of the Corporation, or to exercise voting rights, or grant any proxies or consents with respect to shares of the capital stock of the Corporation constituting more than twenty percent (20%) of the voting power of the then issued and outstanding shares of capital stock of the Corporation, shall have delivered to the Board of Directors of the Corporation a notice in writing, not less than forty-five (45) days (or any shorter period to which said Board shall expressly consent) before the proposed ownership of such shares, or the proposed exercise of said voting rights or the granting of said proxies or consents, of its intention to do so.

(c) **Required Notices.**

(i) Any Person that, either alone or together with its Related Persons, owns, directly or indirectly (whether by acquisition or by a change in the number of shares outstanding), of record or beneficially five percent (5%) or more of the then outstanding shares of capital stock of the Corporation (excluding shares of any class of stock that does not have the right by its terms to vote generally in the election of members of the Board of Directors of the Corporation) shall, immediately upon acquiring knowledge of its ownership of five percent (5%) or more of the then outstanding shares of such stock, give the Board of Directors written notice of such ownership, which notice shall state: (A) such Person's full legal name; (B) such Person's title or status and the date on which such title or status was acquired; (C) such Person's (and its Related Person's) approximate ownership interest of the Corporation; and (D) whether such Person has the power, directly or indirectly, to direct the management or policies of the Corporation, whether through ownership of securities, by contract or otherwise.

(ii) Each Person required to provide written notice pursuant to subparagraph (c)(i) of this Article Ninth shall update such notice promptly after any change in the contents of that notice; provided that no such updated notice shall be required to be provided to the Board of Directors (A) in the event of an increase or decrease in the ownership percentage so reported of less than one percent (1%) of the then outstanding shares of any class of capital stock (such increase or decrease to be measured cumulatively from the amount shown on the last such notice), unless any increase or decrease of less than one percent (1%) results in such Person owning more than twenty percent (20%) or more than forty percent (40%) of the shares of any class of capital stock then outstanding (at a time when such Person previously owned less than such percentages) or such Person owning less than twenty percent (20%) or less than forty percent (40%) of the shares of any class of capital stock then outstanding (at a time when such Person previously owned more than such percentages); or (B) in the event the Corporation issues additional shares of capital stock (or securities convertible into capital stock) or takes any other action that dilutes the ownership of such Person, or acquires or redeems shares of outstanding capital stock or takes any other action that increases the ownership of such Person, in each case without any change in the number of shares held by such Person.

(iii) The Board of Directors of the Corporation shall have the right to require any Person reasonably believed to be subject to and in violation of this Article Ninth to provide the Corporation complete

information as to all shares of stock of the Corporation owned, directly or indirectly, of record or beneficially, by such Person and its Related Persons and as to any other factual matter relating to the applicability or effect of this Article Ninth as may reasonably be requested of such Person.

(d) **Effect of Purported Transfers and Voting in Violation of this Article.** If any stockholder purports to sell, transfer, assign or pledge to any Person, other than the Corporation, any shares of the Corporation that would violate the provisions of this Article Ninth, then the Corporation shall record on the books of the Corporation the transfer of only that number of shares that would not violate the provisions of this Article Ninth and shall treat the remaining shares as owned by the purported transferor, for all purposes, including without limitation, voting, payment of dividends and distributions with respect to such shares whether upon liquidation or otherwise. If any stockholder purports to vote, or to grant any proxy or enter into any agreement, plan or other arrangement relating to the voting of, shares that would violate the provisions of this Article Ninth, then the Corporation shall not honor such vote, proxy, agreement, plan or other arrangement to the extent that such provisions would be violated, and any shares subject to that arrangement shall not be entitled to be voted to the extent of such violation.

(e) **Right to Redeem Shares Purportedly Transferred or Owned in Violation of this Article.** If any stockholder purports to sell, transfer, assign, pledge or own any shares of the Corporation in violation of the provisions of this Article Ninth, then the Corporation shall have the right to, and shall promptly after confirming such violation and to the extent funds are legally available, redeem the shares sold, transferred, assigned, pledged, or owned in violation of the provisions of this Article Ninth for a price per share equal to the par value of those shares. The number of shares to be redeemed by the Corporation pursuant to the foregoing provision shall be calculated by the Corporation after taking into account that such redeemed shares shall become treasury shares and shall no longer be deemed to be outstanding. Written notice shall be given by the Secretary of the Corporation to the holder or holders of record with respect to the redeemable shares at the address of the holder or holders of record appearing on the books of the Corporation, which notice shall specify a date for redemption of the shares that shall be not less than ten (10) days nor more than thirty (30) days from the date of such notice. Any shares which have been so called for redemption shall not be deemed outstanding shares for the purpose of voting or determining the total number of shares entitled to vote on any matter on and after the date on which written notice of redemption has been given to the holder or holders of those shares if a sum sufficient to redeem such shares shall have been irrevocably deposited or set aside to pay the redemption price to the holder or holders of the shares upon surrender of certificates for those shares. From and after the redemption date (unless the Corporation shall default in providing funds for the payment of the redemption price) the shares of redeemed stock which have been redeemed by the Corporation as aforesaid shall become treasury shares and shall no longer be deemed to be outstanding, and all rights of the holder of such redeemed stock as a stockholder of the Corporation (except the right to receive from the Corporation the redemption price against delivery to the Corporation of evidence of ownership of such shares) shall cease. Written notice shall be given by the Secretary of the Corporation to all holders of record appearing on the books of the Corporation of any redemption by the Corporation (including, without limitation, a redemption pursuant to this clause (e)) (in

each case, a "Redemption") not more than ten (10) days after consummation of the Redemption, which notice shall specify the number of shares outstanding after the Redemption of each class of the Corporation's capital stock. In the event that any redemption has resulted in any additional stockholder owning such number of shares of the Corporation that is in violation of the provisions of this Article Ninth, the Corporation shall have the right to and shall promptly after confirming such violation, redeem such shares pursuant to the provisions of this Article Ninth.

TENTH:

(a) **Indemnification**. The Corporation shall provide indemnification for members of its Board of Directors, members of committees of the Board of Directors and of other committees of the Corporation, and its executive officers, and may provide indemnification for its other officers and its agents and employees, and those serving another corporation, partnership, joint venture, trust or other enterprise at the request of the Corporation, in each case to the maximum extent permitted by Delaware law; provided, however, that the Corporation may limit the extent of such indemnification by individual contracts with its directors and executive officers; and, provided, further, that the Corporation shall not be required to indemnify any person in connection with any proceeding (or part thereof) initiated by such person or any proceeding by such person against the Corporation or its directors, officers, employees or other agents unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the Corporation or (iii) such indemnification is provided by the Corporation, in its sole discretion, pursuant to the powers vested in the Corporation under the General Corporation Law of Delaware.

(b) **Limitation of Liability**. To the fullest extent not prohibited by the General Corporation Law of the State of Delaware, as it exists on the date this Amended and Restated Certificate of Incorporation is adopted or as such law may later be amended, no director of the Corporation shall be liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director. No amendment to or repeal of this Article shall adversely affect any right or protection of a director of the Corporation that exists at the time of such amendment or repeal with respect to any actions taken, or inactions, prior thereto.

AMENDED AND RESTATED
BY-LAWS
OF
MIAMI INTERNATIONAL HOLDINGS, INC.
(hereinafter called the "Corporation")

ARTICLE I
OFFICES

Section 1. Registered Office. The registered office of the Corporation shall be in the City of Wilmington, County of New Castle, State of Delaware.

Section 2. Other Offices. The Corporation may also have offices at such other places both within and without the State of Delaware as the Board of Directors may from time to time determine.

ARTICLE II
MEETINGS OF STOCKHOLDERS

Section 1. Place of Meetings. Meetings of the stockholders for the election of directors or for any other purpose shall be held at such time and place, either within or without the State of Delaware as shall be designated from time to time by the Board of Directors.

Section 2. Annual Meetings of Stockholders. The Annual Meetings of Stockholders for the election of directors shall be held on such date and at such time as shall be designated from time to time by the Board of Directors. Any other proper business may be transacted at the Annual Meeting of Stockholders.

Section 3. Special Meetings of Stockholders. Unless otherwise required by law or by the certificate of incorporation of the Corporation, as amended and restated from time to time (the "Certificate of Incorporation"), Special Meetings of Stockholders, for any purpose or purposes, may be called by either (i) the Board of Directors, (ii) the Chairman, (iii) the Chief Executive Officer, (iv) the President, or (iv) stockholders owning a majority of the capital stock of the Corporation issued and outstanding and entitled to vote. Such request shall state the purpose or purposes of the proposed meeting. At a Special Meeting of Stockholders, only such business shall be conducted as shall be specified in the notice of meeting (or any supplement thereto).

Section 4. Notice. Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which shall state the place, date and hour of the meeting, and, in the case of a Special Meeting, the purpose or purposes for which the meeting is called. Unless otherwise required by law, the written notice of any meeting shall be given not less than ten (10) days nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting.

Section 5. Adjournments. Any meeting of the stockholders may be adjourned from time to time to reconvene at the same or some other place, and notice need not be given of any such adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 6. Quorum. Unless otherwise required by law or the Certificate of Incorporation, the holders of a majority of the capital stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business. A quorum, once established, shall not be broken by the withdrawal of enough votes to leave less than a quorum. If, however, such quorum shall not be present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, in the manner provided in Section 5, until a quorum shall be present or represented.

Section 7. Voting. Unless otherwise required by law, the Certificate of Incorporation or these By-Laws, any question brought before any meeting of stockholders, shall be decided by the vote of the holders of a majority of the total number of votes of the capital stock represented and entitled to vote thereat, voting as a single class. Unless otherwise provided in the Certificate of Incorporation, and subject to Section 5 of Article VIII hereof, each stockholder represented at a meeting of stockholders shall be entitled to cast one (1) vote for each share of the capital stock entitled to vote thereat held by such stockholder. Such votes may be cast in person or by proxy but no proxy shall be voted on or after three (3) years from its date, unless such proxy provides for a longer period. The Board of Directors, in its discretion, or the officer of the Corporation presiding at a meeting of stockholders, in such officer's discretion, may require that any votes cast at such meeting shall be cast by written ballot.

Section 8. Consent of Stockholders in Lieu of Meeting. Unless otherwise provided in the Certificate of Incorporation, any action required or permitted to be taken at any Annual or Special Meeting of Stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted and shall be delivered to the Corporation by delivery to its registered office in the State of Delaware, its principal place of business, or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to the Corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. Every written consent shall bear the date of signature of each stockholder who signs the consent and no written consent shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated consent delivered in the manner required by this Section 8 to the Corporation, written consents

signed by a sufficient number of holders to take action are delivered to the Corporation by delivery to its registered office in the state of Delaware, its principal place of business, or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the Corporation as provided above in this Section 8.

Section 9. List of Stockholders Entitled to Vote. The officer of the Corporation who has charge of the stock ledger of the Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder of the Corporation who is present.

Section 10. Stock Ledger. The stock ledger of the Corporation shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list required by Section 9 of this Article II or the books of the Corporation, or to vote in person or by proxy at any meeting of stockholders.

Section 11. Conduct of Meetings. The Board of Directors may adopt by resolution such rules and regulations for the conduct of the meeting of the stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the chairman of any meeting of the stockholders shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chairman of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting, (ii) the determination of when the polls shall open and close for any given matter to be voted on at the meeting, (iii) rules and procedures for maintaining order at the meeting and the safety of those present, (iv) limitations on attendance at or participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the chairman of the meeting shall determine, (v) restrictions on entry to the meeting after the time fixed for the commencement thereof and (vi) limitations on the time allotted to questions or comments by participants.

ARTICLE III
DIRECTORS

Section 1. Number, Term and Election of Directors.

(a) The Board of Directors shall consist of not less than three (3) nor more than thirty-one (31) members including the Chief Executive Officer of the Corporation, the exact number of which shall initially be three (3) and, thereafter, as determined from time to time by the Board of Directors. Except as provided in Section 2 of this Article III, directors shall be elected by a plurality of the votes cast at the Annual Meetings of Stockholders, and each director so elected shall hold office until the next Annual Meeting of Stockholders and until such director's successor is duly elected and qualified, or until such director's earlier death, resignation or removal. Any director may resign at any time upon written notice to the Corporation. Directors need not be stockholders. No person that is subject to any statutory disqualification as defined in Section 3(a)(39) of the Securities Exchange Act of 1934, as amended (the "Act") may be a director of the Corporation.

(b) The Board term of the Chief Executive Officer shall expire when such individual ceases to be Chief Executive Officer of the Company.

Section 2. Vacancies. Unless otherwise required by law or the Certificate of Incorporation, vacancies arising through death, resignation, removal, an increase in the number of directors or otherwise may be filled only by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next Annual Meeting of Stockholders and until their successors are duly elected and qualified, or until their earlier death, resignation or removal.

Section 3. Duties and Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors which may exercise all such powers of the Corporation and do all such lawful acts and things as are not by statute or by the Certificate of Incorporation or by these By-Laws required to be exercised or done by the stockholders.

Section 4. Chairman of the Board of Directors. The Chairman of the Board of Directors shall preside at all meetings of the stockholders and of the Board of Directors. The Chairman of the Board of Directors shall be appointed by the Board of Directors, and, except where by law the signature of the Chief Executive Officer or the President is required, the Chairman of the Board of Directors shall possess the same power as the Chief Executive Officer or the President to sign all contracts, certificates and other instruments of the Corporation which may be authorized by the Board of Directors. During the absence or disability of the Chief Executive Officer or the President if there is no Chief Executive Officer, the Chairman of the Board of Directors shall exercise all the powers and discharge all the duties of the Chief Executive Officer or the President, respectively. The Chairman of the Board of Directors shall also perform such other duties and may exercise such other powers as may be assigned, from time to time, by these By-Laws or by the Board of Directors.

Section 5. Meetings. The Board of Directors may hold meetings, both regular and special, either within or without the State of Delaware. The annual meeting of the Board of Directors shall be held immediately before or after the Annual Meeting of Stockholders and at the place where such meeting is held. No notice of an annual meeting of the Board of Directors shall be necessary and such meeting shall be held for the purpose of electing officers and transaction such other business as may lawfully come before it. Regular meetings of the Board of Directors may be held without notice at such time and at such place as may from time to time be determined by the Board of Directors. Special meetings of the Board of Directors may be called by the Chairman, the Chief Executive Officer, the President, or by any director. Notice thereof stating the place, date and hour of the meeting shall be given to each director either by mail not less than forty-eight (48) hours before the date of the meeting, by telephone or electronic mail on twenty-four (24) hours' notice, or on such shorter notice as the person or persons calling such meeting may deem necessary or appropriate in the circumstances.

Section 6. Quorum and Voting. Except as otherwise required by law or the Certificate of Incorporation or as otherwise specified in these By-Laws, at all meetings of the Board of Directors, a majority of the entire Board of Directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board of Directors. If a quorum shall not be present at any meeting of the Board of Directors, the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting of the time and place of the adjourned meeting, until a quorum shall be present.

Section 7. Actions by Written Consent. Unless otherwise provided in the Certificate of Incorporation, or these By-Laws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all the members of the Board of Directors or committee, as the case may be, consent thereto in writing, and the writing or writings are filed with the minutes of proceedings of the Board of Directors or committee.

Section 8. Meetings by Means of Conference Telephone. Unless otherwise provided in the Certificate of Incorporation, members of the Board of Directors, or any committee thereof, may participate in a meeting of the Board of Directors or such committee by means of a conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting pursuant to this Section 8 shall constitute presence in person at such meeting.

Section 9. Committees.

(a) The committees of the Board of Directors shall consist of an Audit Committee and such other standing or special committees as the Board of Directors may designate, by resolution approved by a majority of the entire Board of Directors. Each committee shall consist of one or more of the directors of the Corporation appointed by the Board of Directors. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of any such committee. In the absence or disqualification of a member of a committee, and in the absence of a designation

by the Board of Directors of an alternate member to replace the absent or disqualified member, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any absent or disqualified member. Any committee, to the extent permitted by law and provided in the resolution establishing such committee, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it. Each committee shall keep regular minutes and report to the Board of Directors when required.

(b) The Audit Committee shall consist of at least three directors. The exact number of Audit Committee members shall be determined from time to time by the Board of Directors. A majority of the members of the Audit Committee shall be Independent Directors. The Audit Committee shall select, evaluate and, where appropriate, replace the Corporation's independent auditors (or nominate the independent auditors to be proposed for ratification by the stockholders of the Corporation). The Audit Committee shall have such other duties and may exercise such authority as may be prescribed by resolution of the Board of Directors and the Audit Committee Charter as adopted by resolution of the Board of Directors. "Independent Director" means a director who has no material relationship with the Corporation or any subsidiary or affiliate of the Corporation, or any Exchange Member or any affiliate of any such Exchange Member; provided, however, that an individual who otherwise qualifies as an Independent Director shall not be disqualified from serving in such capacity solely because such director is a director of the Corporation or any subsidiary of the Corporation. "Exchange Member" means any registered broker or dealer that has been admitted to membership in any national securities exchange operated by the Corporation or any subsidiary or affiliate of the Corporation.

Section 10. Compensation. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors or a stated salary as director, payable in cash or securities. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

Section 11. Interested Directors. No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, association, or other organization in which one or more of its directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or committee thereof which authorizes the contract or transaction, or solely because the director or officer's vote is counted for such purpose if (i) the material facts as to the director or officer's relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board of Directors or committee in good faith authorizes the contract or transaction by the affirmative vote of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or (ii) the material facts as to the director or officer's relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon,

and the contract or transaction is specifically approved in good faith by vote of the stockholders; or (iii) the contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified by the Board of Directors, a committee thereof or the stockholders. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

ARTICLE IV
OFFICERS

Section 1. General. The officers of the Corporation shall be chosen by the Board of Directors and shall be a Chief Executive Officer, a President, a Secretary and a Treasurer. The Board of Directors, in its discretion, also may choose one or more Vice Presidents, Assistant Secretaries, Assistant Treasurers and other officers. Any number of offices may be held by the same person, unless otherwise prohibited by law or the Certificate of Incorporation. The officers of the Corporation need not be stockholders of the Corporation nor need such officers be directors of the Corporation. No person that is subject to any statutory disqualification (as defined in Section 3(a) (39) of the Act) may be an officer of the Corporation.

Section 2. Election. The Board of Directors, at its first meeting held after each Annual Meeting of Stockholders (or action by written consent of stockholders in lieu of the Annual Meeting of Stockholders), shall elect the officers of the Corporation who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors; and all officers of the Corporation shall hold office until their successors are chosen and qualified, or until their earlier death, resignation or removal. Any officer elected by the Board of Directors may be removed at any time by the affirmative vote of a majority of the Board of Directors. Any vacancy occurring in any office of the Corporation shall be filled by the Board of Directors. The salaries of all officers of the Corporation shall be fixed by the Board of Directors.

Section 3. Chief Executive Officer. The Chief Executive Officer shall be the chief executive officer of the Company, shall have general supervision over the business and affairs of the Company and shall serve at the pleasure of the Board. The Chief Executive Officer shall have all powers and duties usually incident to the office of the Chief Executive Officer, except as specifically limited by a resolution of the Board. The Chief Executive Officer shall exercise such other powers and perform such other duties as may be assigned to the Chief Executive Officer from time to time by the Board.

Section 4. President. The President shall, in the absence of the Chairman, the Vice Chairman (if any) and Chief Executive Officer, preside at all meetings of the Board at which the President is present. The President shall have general supervision over the operations of the Company. The President shall have all powers and duties usually incident to the office of the President, except as specifically limited by a resolution of the Board. The President shall exercise such other powers and perform such other duties as may be assigned to the President from time to time by the Board.

Section 5. Vice Presidents. The Board shall appoint one or more Vice Presidents. In the absence or disability of the President or if the office of President becomes vacant, the Vice Presidents in the order determined by the Board, or if no such determination has been made, in the order of their seniority, shall perform the duties and exercise the powers of the President, subject to the right of the Board at any time to extend or restrict such powers and duties or to assign them to others. Any Vice President may have such additional designations in such Vice President's title as the Board may determine. The Vice Presidents shall generally assist the President in such manner as the President shall direct. Each Vice President shall exercise such other powers and perform such other duties as may be assigned to such Vice President from time to time by the Board, the Chief Executive Officer or the President. The term "Vice President" used in this Section shall include the positions of Executive Vice President, Senior Vice President, and Vice President.

Section 6. Secretary. The Secretary shall act as Secretary of all meetings of the Board at which the Secretary is present, shall record all the proceedings of all such meetings in a book to be kept for that purpose, shall have supervision over the giving and service of notices of the Company, and shall have supervision over the care and custody of the books and records of the Company. The Secretary shall be empowered to affix the Company's seal, if any, to documents, the execution of which on behalf of the Company under its seal is duly authorized, and when so affixed, may attest the same. The Secretary shall have all powers and duties usually incident to the office of Secretary, except as specifically limited by a resolution of the Board. The Secretary shall exercise such other powers and perform such other duties as may be assigned to the Secretary from time to time by the Board, the Chief Executive Officer or the President.

Section 7. Treasurer. The Treasurer shall have general supervision over the care and custody of the funds and over the receipts and disbursements of the Company and shall cause the funds of the Company to be deposited in the name of the Company in such banks or other depositories as the Board may designate. The Treasurer shall have supervision over the care and safekeeping of the securities of the Company. The Treasurer shall have all powers and duties usually incident to the office of Treasurer except as specifically limited by a resolution of the Board. The Treasurer shall exercise such other powers and perform such other duties as may be assigned to the Treasurer from time to time by the Board, the Chief Executive Officer or the President.

Section 8. Assistant Secretaries. In the absence of the Secretary or in the event of the Secretary's inability or refusal to act, any Assistant Secretary, approved by the Board, shall exercise all powers and perform all duties of the Secretary. An Assistant Secretary shall also exercise such other powers and perform such other duties as may be assigned to such Assistant Secretary from time to time by the Board or the Secretary.

Section 9. Assistant Treasurers. In the absence of the Treasurer or in the event of the Treasurer's inability or refusal to act, any Assistant Treasurer, approved by the Board, shall exercise all powers and perform all duties of the Treasurer. An Assistant Treasurer shall also exercise such other powers and perform such other duties as may be assigned to such Assistant Treasurer from time to time by the Board or the Treasurer.

Section 10. Other Officers. Such other officers as the Board of Directors may choose shall perform such duties and have such powers as from time to time may be assigned to them by the Board of Directors. The Board of Directors may delegate to any other officer of the Corporation the power to choose such other officers and to prescribe their respective duties and powers.

ARTICLE V
BOARD OF ADVISORS

Section 1. Membership. The Board of Directors may appoint any person or persons to act in an advisory capacity to the Corporation. Such a group shall be known as the Board of Advisors and shall operate under an Advisory Board Charter approved by the Corporation's Board of Directors.

Section 2. Powers. The Board of Advisors shall be an advisory-only body to the Corporation. They shall have no power to bind the Corporation to any particular position or course of action.

ARTICLE VI
VOTING SECURITIES OWNED BY THE CORPORATION

Section 1. General Power to Vote. Unless otherwise instructed by the Board of Directors, and subject to Section 2 below, the Chairman or the Chief Executive Officer of the Corporation shall have the power and authority on behalf of the Corporation to attend and to vote at any meeting of stockholders, partners or equity holders of any corporation, partnership or any other entity (including, but not limited to, Miami International Securities Exchange, LLC, Miami International Futures Exchange, LLC and Miami International Technologies, LLC) in which the Corporation may hold stock, partnership or other equity interests, as the case may be, and may exercise on behalf of the Corporation any and all of the rights and powers incident to the ownership of such stock, partnership or other equity interest at such meeting, and shall have the power and authority to execute and deliver proxies, waivers and consents on behalf of the Corporation in connection with the exercise by the Corporation of the rights and powers incident to the ownership of such stock, partnership or other equity interest. The Board of Directors may from time to time confer like powers upon any other person or persons.

Section 2. Meeting of LLC Members or Stockholders of a Controlled National Securities Exchange. At any meeting of stockholders or meeting of the holders of LLC interests of any national securities exchange which this Corporation shall control, directly or indirectly (each, a "Controlled National Securities Exchange"), including but not limited to Miami International Securities Exchange, LLC (the "Equityholders"), held for the purpose of electing directors and members of the Member Nominating Committee of such Controlled National Securities Exchange (as set forth in the By-Laws of such Controlled National Securities Exchange, the "Member Nominating Committee"), or in the event written consents are solicited or otherwise sought from the Equityholders of such Controlled National Securities Exchange with respect thereto, the Corporation shall cause all outstanding shares of such Controlled National Securities Exchange owned by the Corporation and entitled to vote at such election to

be voted in favor of only those Controlled National Securities Exchange member representative directors and nominees for the Member Nominating Committee nominated in accordance with the By-Laws of such Controlled National Securities Exchange and, with respect to any such written consents, shall cause to be validly executed only such written consents electing only such directors and members of the Member Nominating Committee.

ARTICLE VII
SRO FUNCTION OF A CONTROLLED NATIONAL SECURITIES EXCHANGE

Section 1. Non-Interference. For so long as the Corporation shall control any Controlled National Securities Exchange, the directors, officers, employees and agents of the Corporation shall give due regard to the preservation of the independence of the self-regulatory function of each Controlled National Securities Exchange and to its obligations to investors and the general public and shall not take any actions which would interfere with the effectuation of any decisions by the Board of Directors of each Controlled National Securities Exchange relating to its regulatory functions (including disciplinary matters) or which would interfere with the ability of each Controlled National Securities Exchange to carry out its responsibilities under the Act. No present or past stockholder, employee, beneficiary, agent, customer, creditor, regulatory authority (or member thereof) or other person or entity shall have any rights against the Corporation or any director, officer, employee or agent of the Corporation under this Section 1.

Section 2. Confidentiality. All books and records of each Controlled National Securities Exchange reflecting confidential information pertaining to the self-regulatory function of such Controlled National Securities Exchange (including but not limited to disciplinary matters, trading data, trading practices and audit information) that shall come into the possession of the Corporation, and the information contained in those books and records, shall be retained in confidence by the Corporation and the members of the board of directors, officers, employees and agents of the Corporation and shall not be used for any non-regulatory purposes. Notwithstanding the foregoing sentence, nothing in these By-Laws shall be interpreted so as to limit or impede the rights of the Securities and Exchange Commission (the "Commission") or each Controlled National Securities Exchange to access and examine such confidential information pursuant to the federal securities laws and the rules and regulations thereunder, or to limit or impede the ability of any officers, directors, employees or agents of the Corporation to disclose such confidential information to the Commission or each Controlled National Securities Exchange.

Section 3. Books and Records. All books and records of the Corporation shall be maintained at a location within the United States. To the extent they are related to the activities of a Controlled National Securities Exchange, the books, records, premises, officers, directors, agents, and employees of the Corporation shall be deemed to be the books, records, premises, officers, directors, agents and employees of each Controlled National Securities Exchange for the purposes of, and subject to oversight pursuant to, the Act. For so long as the Corporation shall control, directly or indirectly, a Controlled National Securities Exchange, the Corporation's books and records shall be subject at all times to inspection and copying by the Commission and

each Controlled National Securities Exchange, provided that such books and records are related to the operation or administration of such Controlled National Securities Exchange.

Section 4. Cooperation with the Securities and Exchange Commission. The Corporation shall comply with the federal securities laws and the rules and regulations promulgated thereunder and shall cooperate with the Commission and each Controlled National Securities Exchange pursuant to and to the extent of their respective regulatory authority. The officers, directors, employees and agents of the Corporation, by virtue of their acceptance of such position, shall comply with the federal securities laws and the rules and regulations promulgated thereunder and shall be deemed to agree to cooperate with the Commission and each Controlled National Securities Exchange in respect of the Commission's oversight responsibilities regarding each Controlled National Securities Exchange and the self-regulatory functions and responsibilities of each Controlled National Securities Exchange, and the Corporation shall take reasonable steps necessary to cause its officers, directors, employees and agents to so cooperate. No present or past stockholder, employee, beneficiary, agent, customer, creditor, regulatory authority (or member thereof) or other person or entity shall have any rights against the Corporation or any director, officer, employee or agent of the Corporation under this Section 4.

Section 5. Consent to Jurisdiction. The Corporation and its officers, directors, employees and agents, by virtue of their acceptance of such position, shall be deemed to irrevocably submit to the jurisdiction of the United States federal courts, Commission, and each Controlled National Securities Exchange, for the purposes of any suit, action or proceeding pursuant to the United States federal securities laws, and the rules or regulations thereunder, arising out of, or relating to, the activities of each Controlled National Securities Exchange, and by virtue of their acceptance of any such position, shall be deemed to waive, and agree not to assert by way of motion, as a defense or otherwise in any such suit, action or proceeding, any claims that it or they are not personally subject to the jurisdiction of the United States federal courts, Commission or each Controlled National Securities Exchange, that the suit, action or proceeding is an inconvenient forum or that the venue of the suit, action or proceeding is improper, or that the subject matter of that suit, action or proceeding may not be enforced in or by such courts or agency. The Corporation and its officers, directors, employees and agents also agree that they will maintain an agent, in the United States, for the service of process of a claim arising out of, or relating to, the activities of each Controlled National Securities Exchange.

Section 6. Consent to Application. The Corporation shall take reasonable steps necessary to cause its officers, directors, employees and agents, prior to accepting a position as an officer, director, employee or agent, as applicable, of the Corporation to consent in writing to the applicability to them of this Article VII, as applicable, with respect to their activities related to each Controlled National Securities Exchange.

ARTICLE VIII
STOCK

Section 1. Form of Certificates. Every holder of stock in the Corporation shall be entitled to have a certificate signed, in the name of the Corporation (i) by the Chairman of the Board of Directors, the President or a Vice President and (ii) by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Corporation, certifying the number of shares owned by such stockholder in the Corporation.

Section 2. Signatures. Any or all of the signatures on a certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue.

Section 3. Lost Certificates. The Board of Directors may direct a new certificate to be issued in place of any certificate theretofore issued by the Corporation alleged to have been lost, stolen or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate, or the owner's legal representative, to advertise the same in such manner as the Board of Directors shall require and/or to give the Corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the Corporation with respect to the certificate alleged to have been lost, stolen or destroyed or the issuance of such new certificate.

Section 4. Transfers. Stock of the Corporation shall be transferable in the manner prescribed by law and in these By-Laws. Transfers of stock shall be made on the books of the Corporation only by the person named in the certificate or by such person's attorney lawfully constituted in writing and upon the surrender of the certificate therefor, which shall be cancelled before a new certificate shall be issued. No transfer of stock shall be valid as against the Corporation for any purpose until it shall have been entered in the stock records of the Corporation by an entry showing from and to whom transferred.

Section 5. Record Date.

(a) In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall not be more than sixty (60) days nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment

of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the Corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall not be more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. If no record date has been fixed by the Board of Directors, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is required by law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the Corporation by delivery to its registered office in this State, its principal place of business, or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a Corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day on which the Board of Directors adopts the resolutions taking such prior action.

(c) In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed by the Board of Directors, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 6. Record Owners. The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and to hold liable for calls and assessments a person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise required by law.

ARTICLE IX
NOTICES

Section 1. Notices. To the extent permitted by law, any notice required to be given by these By-Laws or otherwise shall be deemed to have been given:

(a) in person upon delivery of the notice in person to the person to whom such notice is addressed;

(b) by mail upon deposit of the notice in the United States mail, enclosed in a postage prepaid envelope;

(c) by messenger or overnight courier service upon provision of the notice to the messenger or courier service, provided that the delivery method does not require payment of the messenger or courier service fee to deliver the notice by the person to whom the notice is addressed;

(d) by facsimile machine upon acknowledgment by the facsimile machine used to transmit the notice of the successful transmission of the notice;

(e) by electronic mail upon electronic transmission of the notice; and

(f) by telephone when received.

Any such notice must be addressed to its intended recipient at the intended recipient's address (including the intended recipient's business or residence address, facsimile number, electronic address, or telephone number, as applicable) as it appears on the books and records of the Corporation, or if no address appears on such books and records, then at such address as shall be otherwise known to the Secretary, or if no such address appears on such books and records, then in care of the registered agent of the Corporation in the State of Delaware. In the event that a notice is not provided in conformity with the provisions of this Section 1, the notice will be deemed to have been given to its intended recipient upon any receipt of the notice by its intended recipient. Whenever, by any provisions of statute, the Certificate of Incorporation, these By-Laws or otherwise, any notice is required to be given any specified number of days before any meeting or event, the day on which such notice was given shall be counted but the day of such meeting or other event shall not be counted in determining whether or not notice has been given in proper time in a particular case.

Section 2. Electronic Notice. Whenever any notice whatsoever is required to be given in writing to any stockholder by law, by the Certificate of Incorporation or by these By-Laws, such notice may be given by a form of electronic transmission if the stockholder to whom such notice is given has previously consented to the receipt of notice by electronic transmission.

Section 3. Waivers of Notice. Whenever notice is required to be given under the provisions of any statute, the Certificate of Incorporation, these By-Laws, or otherwise, a written waiver thereof, signed by the person entitled to notice, or such person's proxy in the case of a

stockholder, whether before or after the time stated therein shall be deemed equivalent to notice. Except as may be otherwise specifically provided by statute, any waiver by mail, messenger, overnight courier, facsimile machine, or electronic mail, bearing the name of the person entitled to notice shall be deemed a written waiver duly signed. Attendance of a person at a meeting, including attendance by proxy in the case of a stockholder, shall constitute a waiver of notice of such meeting except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business the meeting is not lawfully called or convened. Except as required by statute or the Certificate of Incorporation, neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors or any committee need be specified in any written waiver of notice.

ARTICLE X
GENERAL PROVISIONS

Section 1. Dividends. Dividends upon the capital stock of the Corporation, subject to the requirements of the General Corporation Law of the State of Delaware as set forth in Title 8 of the Delaware Code and the provisions, if any, of the Certificate of Incorporation, may be declared by the Board of Directors at any regular or special meeting of the Board of Directors (or any action by written consent in lieu thereof in accordance with Section 7 of Article III hereof), and may be paid in cash, in property, or in shares of the Corporation's capital stock. Before payment of any dividend, there may be set aside out of any funds of the Corporation available for dividends such sum or sums as the Board of Directors from time to time, in its absolute discretion, deems proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the Corporation, or for any proper purpose, and the Board of Directors may modify or abolish any such reserve.

Section 2. Disbursements. All checks or demands for money and notes of the Corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.

Section 3. Fiscal Year. The fiscal year of the Corporation shall be fixed by resolution of the Board of Directors.

Section 4. Corporate Seal. The corporate seal shall have inscribed thereon the name of the Corporation, the year of its organization and the words "Corporate Seal, Delaware." The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE XI
INDEMNIFICATION

Section 1. Indemnification of Directors, Officers, Employees and Other Agents. The Corporation shall indemnify its directors and executive officers to the fullest extent not prohibited by the Delaware General Corporation Law; provided, however, that the Corporation may limit the extent of such indemnification by individual contracts with its directors and executive officers; and, provided, further, that the Corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person or any proceeding by such person against the Corporation or its directors, officers, employees or other agents unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the Corporation or (iii) such indemnification is provided by the Corporation, in its sole discretion, pursuant to the powers vested in the Corporation under the Delaware General Corporation Law.

(a) **Other Officers, Employees and Other Agents**. The Corporation shall have the power to indemnify its other officers, employees and other agents as set forth in the Delaware General Corporation Law.

(b) **Expenses**. The Corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person is or was a director or executive officer, of the Corporation, or is or was serving at the request of the Corporation as a director or executive officer of another Corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding upon receipt of an undertaking by or on behalf of such person to repay said amounts if it should be determined ultimately that such person is not entitled to be indemnified under this Bylaw or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this Bylaw, no advance shall be made by the Corporation to an executive officer of the Corporation (except by reason of the fact that such executive officer is or was a director of the Corporation in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to the proceeding, or (ii) if such quorum is not obtainable, or, even if obtainable, a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the Corporation.

(c) **Enforcement**. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the Corporation and the director or executive officer. Any right to

indemnification or advances granted by this Bylaw to a director or executive officer shall be enforceable by or on behalf of the person holding such right in the forum in which the proceeding is or was pending or, if such forum is not available or a determination is made that such forum is not convenient, in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. The claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting his claim. The Corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the Delaware General Corporation Law for the Corporation to indemnify the claimant for the amount claimed. Neither the failure of the Corporation (including its Board of Directors, independent legal counsel or its Stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the Delaware General Corporation Law, nor an actual determination by the Corporation (including its Board of Directors, independent legal counsel or its Stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct.

(d) **Non Exclusivity of Rights**. To the fullest extent permitted by the Corporation's Certificate of Incorporation and the Delaware General Corporation Law, the rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The Corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent permitted by the Delaware General Corporation Law and the Corporation's Certificate of Incorporation.

(e) **Survival of Rights**. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director or executive officer and shall inure to the benefit of the heirs, executors and administrators of such a person.

(f) **Insurance**. The Corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Bylaw.

(g) **Amendments**. Any repeal or modification of this Bylaw shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the Corporation.

(h) **Saving Clause**. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each director and executive officer to the fullest extent permitted by any applicable portion of this Bylaw that shall not have been invalidated, or by any other applicable law.

(i) **Certain Definitions**. For the purposes of this Bylaw, the following definitions shall apply:

(1) The term "proceeding" shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement and appeal of any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative, arbitrative or investigative.

(2) The term "expenses" shall be broadly construed and shall include, without limitation, court costs, attorneys' fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding, including expenses of establishing a right to indemnification under this Bylaw or any applicable law.

(3) The term the "Corporation" shall include, in addition to the resulting Corporation, any constituent Corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent Corporation, or is or was serving at the request of such constituent Corporation as a director, officer, employee or agent of another Corporation, partnership, limited liability company, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Bylaw with respect to the resulting or surviving Corporation as he would have with respect to such constituent Corporation if its separate existence had continued.

(4) References to a "director," "officer," "employee," or "agent" of the Corporation shall include, without limitation, situations where such person is serving at the request of the Corporation as a director, officer, employee, trustee or agent of another Corporation, partnership, joint venture, trust or other enterprise.

Section 2. Corporation Not Liable.

(a) The Corporation shall not be liable for any loss or damage sustained by a current or former Exchange Member growing out of the use or enjoyment by such current or former Exchange Member of the facilities afforded by the Corporation or its subsidiaries, including, without limitation, a Controlled National Securities Exchange. The term "Exchange Member" shall have the meaning given such term in the By-Laws and Rules of a Controlled National Securities Exchange.

(b) The Corporation shall not be liable for any loss or damage sustained by a current or former participant of the Miami International Futures Exchange, LLC ("MIAX Futures") growing out of the use or enjoyment by such participant of the MIAX Futures of the facilities afforded by the Corporation or its subsidiaries, including, without limitation, the Miami International Futures Exchange, LLC.

ARTICLE XII
AMENDMENTS

Section 1. Amendments. These By-Laws may be altered, amended or repealed, in whole or in part, or new By-Laws may be adopted by the stockholders or by the Board of Directors, provided, however, that notice of such alteration, amendment, repeal or adoption of new By-Laws be contained in the notice of such meeting of stockholders or Board of Directors as the case may be. All such amendments must be approved by either the holders of a majority of the outstanding capital stock entitled to vote thereon or by a majority of the entire Board of Directors then in office. For so long as the Corporation shall control, directly or indirectly, a Controlled National Securities Exchange before any amendment to or repeal of any provision of the By-Laws of the Corporation shall be effective, those changes shall be submitted to the Board of Directors of a Controlled National Securities Exchange and if the same must be filed with or filed with and approved by the Commission before the changes may be effective, under Section 19 of the Act and the rules promulgated under the Act by the Commission or otherwise, then the proposed changes to the By-Laws of the Corporation shall not be effective until filed with or filed with and approved by the Commission, as the case may be.

Section 2. Entire Board of Directors. As used in this Article XII and in these By-Laws generally, the term "entire Board of Directors" means the total number of directors which the Corporation would have if there were no vacancies.

* * *

Adopted as of: June 27, 2015

B

State of Delaware
Secretary of State
Division of Corporations
Delivered 12:35 PM 06/17/2011
FILED 12:35 PM 06/17/2011
SRV 110734849 - 4420452 FILE

STATE OF DELAWARE
AMENDED AND RESTATED
CERTIFICATE OF FORMATION
OF
MIAMI INTERNATIONAL SECURITIES EXCHANGE, LLC

This filing has been executed and filed in accordance with Section 18-208 of the Limited Liability Company Act. This document is being executed for the purpose of amending and restating the original Certificate of Formation, filed under Miami International Stock Exchange. LLC on September 10, 2007, as amended by the Certificate of Amendment, filed on April 21, 2010 under file number: 4420452.

FIRST: The name of the limited liability company is **Miami International Securities, Exchange LLC.**

SECOND: The address of its registered office in the State of Delaware is 3422 Old Capitol Trail, Suite 700, Wilmington, DE 19808-6192, County of New Castle. The name of its registered agent at such address is **Delaware Business Incorporations, Inc.**

THIRD: The members agree to be bound by the signed limited liability company agreements except as they may be contradicted by the Limited Liability Company Act of the State of Delaware.

FOURTH: The duration of this limited liability company will be perpetual.

IN WITNESS WHEREOF, the undersigned, an authorized person, has executed this Amended and Restated Certificate of Formation on this date of June 17, 2011.

MIAMI INTERNATIONAL SECURITIES EXCHANGE, LLC

By: _____

Thomas P. Gallagher
Chairman

SECOND AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
OF
MIAMI INTERNATIONAL SECURITIES EXCHANGE, LLC
(a Delaware limited liability company)

Miami International Holdings, Inc., a Delaware corporation, the sole member (the "LLC Member") of Miami International Securities Exchange, LLC, a Delaware limited liability company (the "Company"), pursuant to and in accordance with the Delaware Limited Liability Company Act, 6 Del.C. § 18-101, et seq. (the "LLC Act"), hereby declares the following to be the Second Amended and Restated Limited Liability Company Agreement (the "LLC Agreement") of the Company which amends and restates in its entirety the First Amended and Restated Limited Liability Company Agreement dated May 20, 2011 of the Company (the "Operating Agreement"). Capitalized terms not otherwise defined herein shall have the meanings set forth on Schedule A to this LLC Agreement.

Section 1. **Formation of the Company**. The Company has been formed as a limited liability company under the LLC Act by the filing of a Certificate of Formation with the Office of the Secretary of State of the State of Delaware. The LLC Member agrees to be bound by and comply with the provisions thereof and hereof.

Section 2. **Name.** The name of the Company is "Miami International Securities Exchange, LLC".

Section 3. **Principal Place of Business.** The location of the principal place of business of the Company shall be 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540, or such other place as determined by the Board of Directors from time to time.

Section 4. **Registered Office; Registered Agent.** The registered office of the Company required by the LLC Act to be maintained in the State of Delaware shall be 3422 Old Capitol Trail, Suite 700, Wilmington, DE 19808-6192, County of New Castle or such other office as the Board of Directors may designate from time to time. The registered agent for the Company shall be Delaware Business Incorporators, Inc., or such other registered agent as the Board of Directors may designate from time to time.

Section 5. **Term.** The Company shall continue until the Company is terminated in accordance with the provisions of this LLC Agreement.

Section 6. **LLC Member.** The mailing address of the LLC Member is set forth on Schedule B attached hereto. The LLC Member was admitted to the Company as an LLC Member of the Company upon its execution of a counterpart signature page to the Operating Agreement at which time it acquired 100% of the limited liability company interests of the Company.

Section 7. **Purpose of the Company.** The purpose of the Company shall be to conduct the operations of an "exchange" within the meaning of the Securities Exchange Act of

1934, as amended (the "Exchange Act"), and to conduct any lawful business or activity whatsoever, as permitted by applicable law and as determined from time to time by the board of directors of the Company (the "Board of Directors").

Section 8. Powers. The Company, and the Board of Directors and the Officers of the Company on behalf of the Company, (i) shall have and exercise all powers necessary, convenient or incidental to accomplish its purposes as set forth in Section 7 and (ii) shall have and exercise all of the powers and rights conferred upon limited liability companies formed pursuant to the LLC Act.

Section 9. Management.

(a) Board of Directors. The business and affairs of the Company shall be managed by or under the direction of a Board of Directors. Each Director is hereby designated as a "manager" within the meaning of the LLC Act. All Directors shall be elected by the LLC Member in the manner described in the By-Laws (as defined below). Each Director shall execute and deliver an instrument accepting such appointment and agreeing to be bound by all the terms and conditions of this LLC Agreement and the By-Laws. A Director need not be an LLC Member or an Exchange Member. The Directors as of the date of this LLC Agreement are set forth on Schedule C attached hereto.

(b) Powers. The Board of Directors shall have the power to do any and all acts necessary, convenient or incidental to or for the furtherance of the purposes described herein, including all powers, statutory or otherwise. The Board of Directors has the authority to bind the Company.

(c) By-Laws. The Company, the LLC Member and the Board of Directors hereby adopt the By-Laws of the Company in the form attached hereto as Exhibit A, as the same may be amended from time to time in accordance with the terms therein and in this LLC Agreement (the "By-Laws"). Each member of the Board of Directors, each Officer and the LLC Member shall be subject to the express provisions of this LLC Agreement and of the By-Laws. In case of any conflict between the provisions of this LLC Agreement and any provisions of the By-Laws, the provisions of this LLC Agreement shall control.

(d) Directors as Agents. To the extent of their powers set forth in this LLC Agreement, the Directors are agents of the Company for the purpose of the Company's business, and the actions of the Directors taken in accordance with such powers set forth in this LLC Agreement shall bind the Company. Notwithstanding the last sentence of Section 18-402 of the LLC Act, except as provided in this LLC Agreement, the By-Laws or in a resolution of the Directors, a Director may not bind the Company.

Section 10. Officers.

(a) Officers of the Company. Except as provided herein, the Board may, from time to time as it deems advisable, select natural persons who are employees or agents of the Company and designate them as officers of the Company (the "Officers") and assign titles

(including, without limitation, Chief Executive Officer, Vice President, Chief Financial Officer, Chief Regulatory Officer, Secretary and Treasurer) to any such person. The Board may appoint such other Officers and agents as it shall deem necessary or advisable who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board. The salaries of all Officers and agents of the Company shall be fixed by or in the manner prescribed by the By-Laws. The Officers of the Company shall hold office until their successors are chosen and qualified. Any Officer may be removed at any time, with or without cause, by the Board. Any vacancy occurring in any office of the Company shall be filled by the Board.

(b) Officers as Agents. The Officers, to the extent of their powers set forth in this LLC Agreement, the By-Laws or otherwise vested in them by action of the Board not inconsistent with this LLC Agreement, are agents of the Company for the purpose of the Company's business, and the actions of the Officers taken in accordance with such powers shall bind the Company.

(c) Duties of Board and Officers. Except to the extent otherwise modified herein, each Director and Officer shall have a fiduciary duty of loyalty and care similar to that of directors and officers of business corporations organized under the General Corporation Law of the State of Delaware.

Section 11. Advisory Board. The LLC Member may appoint any person or persons to act in an advisory capacity to the Company. Such a group shall be known as the Advisory Board.

Section 12. Limited Liability. Except as otherwise expressly provided by the LLC Act, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise (including, without limitation, those arising as member, owner or shareholder of another company, partnership or entity), shall be the debts, obligations and liabilities solely of the Company, and neither the LLC Member nor any Director or Officer shall be obligated personally for any such debt, obligation or liability of the Company solely by reason of being an LLC Member or Director or Officer of the Company.

Section 13. Capital Contributions. The LLC Member has contributed to the Company the amounts set forth in the books and records of the Company.

Section 14. Additional Contributions. The LLC Member is not required to make any additional capital contribution to the Company. However, the LLC Member may make additional capital contributions to the Company at any time upon the consent of such LLC Member. To the extent that the LLC Member makes an additional capital contribution to the Company, the LLC Member shall revise the books and records of the Company. The provisions of this LLC Agreement, including this Section 14, are intended to benefit the LLC Member and, to the fullest extent permitted by law, shall not be construed as conferring any benefit upon any creditor of the Company (and no such creditor of the Company shall be a third-party beneficiary of this LLC Agreement), and the LLC Member shall not have any duty or obligation to any

creditor of the Company to make any contribution to the Company or to issue any call for capital pursuant to this LLC Agreement.

Section 15. **Allocation of Profits and Losses.** The Company's profits and losses shall be allocated to the LLC Member.

Section 16. **Distributions.** Distributions shall be made to the LLC Member at the times and in the aggregate amounts determined by the Board. Notwithstanding any provision to the contrary contained in this LLC Agreement, (i) the Company shall not be required to make a distribution to the LLC Member on account of its interest in the Company if such distribution would violate the LLC Act or any other applicable law, and (ii) the Company shall not make a distribution to the LLC Member using Regulatory Funds.

Section 17. **Books and Records.**

(a) The Board shall keep or cause to be kept complete and accurate books of account and records with respect to the Company's business. The books and records of the Company shall at all times be maintained by the Board at a location within the United States. The LLC Member and its duly authorized representatives shall have the right to examine the Company books, records and documents during normal business hours. The Company, and the Board on behalf of the Company, shall not have the right to keep confidential from the LLC Member any information that the Board would otherwise be permitted to keep confidential from the LLC Member pursuant to Section 18-305(c) of the LLC Act. The Company's books of account shall be kept using the method of accounting determined by the LLC Member. The Company's independent auditor shall be an independent public accounting firm selected by the Board.

(b) All books and records of the Company reflecting confidential information pertaining to the self-regulatory function of the Company (including but not limited to disciplinary matters, trading data, trading practices, and audit information) shall be retained in confidence by the Company and its personnel and will not be used by the Company for any non-regulatory purposes and shall not be made available to any person (including, without limitation, any Exchange Member) other than to personnel of the Commission, and those personnel of the Company, members of committees of the Company, members of the Board, hearing officers and other agents of the Company to the extent necessary or appropriate to properly discharge the self-regulatory responsibilities of the Company.

Section 18. **Reports.** The Board shall, after the end of each fiscal year, use reasonable efforts to cause the Company's independent accountants to prepare and transmit to the LLC Member as promptly as possible any such tax information as may be reasonably necessary to enable the LLC Member to prepare its federal, state and local income tax returns relating to such fiscal year.

Section 19. **Other Business.** Unless otherwise restricted by law, the LLC Member, and any Officer, Director, employee or agent of the Company and any Affiliate of the LLC Member may engage in or possess an interest in other business ventures (unconnected with the

Company) of every kind and description, independently or with others. The Company shall not have any rights in or to such independent ventures or the income or profits therefrom by virtue of this LLC Agreement.

Section 20. Exculpation and Indemnification.

(a) Neither the LLC Member nor any Officer, Director, employee or agent of the Company nor any employee, representative, agent or affiliate of the LLC Member (collectively, the "Covered Persons") shall be liable to the Company or any other Person who is bound by this LLC Agreement for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Covered Person by this LLC Agreement, except that a Covered Person shall be liable for any such loss, damage or claim incurred by reason of such Covered Person's willful misconduct.

(b) To the fullest extent permitted by applicable law, a Covered Person shall be entitled to indemnification from the Company for any loss, damage or claim incurred by such Covered Person by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Covered Person by this LLC Agreement, except that no Covered Person shall be entitled to be indemnified in respect of any loss, damage or claim incurred by such Covered Person by reason of such Covered Person's willful misconduct with respect to such acts or omissions; provided, however, that any indemnity under this Section 20 by the Company shall be provided out of and to the extent of Company assets only, and the LLC Member shall not have personal liability on account thereof.

(c) To the fullest extent permitted by applicable law, expenses (including reasonable legal fees) incurred by a Covered Person defending any claim, demand, action, suit or proceeding shall, from time to time, be advanced by the Company prior to the final disposition of such claim, demand, action, suit or proceeding upon receipt by the Company of an undertaking by or on behalf of the Covered Person to repay such amount if it shall be determined that the Covered Person is not entitled to be indemnified as authorized in this Section 20.

(d) A Covered Person shall be fully protected in relying in good faith upon the records of the Company and upon such information, opinions, reports or statements presented to the Company by any Person as to matters the Covered Person reasonably believes are within such other Person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Company, including information, opinions, reports or statements as to the value and amount of the assets, liabilities or any other facts pertinent to the existence and amount of assets from which distributions to the LLC Member might properly be paid.

(e) To the extent that, at law or in equity, a Covered Person has duties (including fiduciary duties) and liabilities relating thereto to the Company or to any other Covered Person, a Covered Person acting under this LLC Agreement shall not be liable to the Company or to any other Covered Person who is bound by this LLC Agreement for its good faith

reliance on the provisions of this LLC Agreement or any approval or authorization granted by the Company or any other Covered Person.

(f) The foregoing provisions of this Section 20 shall survive any termination of this LLC Agreement and are in addition to any indemnification of Covered Persons provided by any agreement between the Company and a Covered Person, the By-Laws, by statute, or otherwise.

Section 21. Assignments. The LLC Member may assign, in whole or in part, its limited liability company interest in the Company (the "LLC Interest"); provided, however, such assignment will be subject to prior approval by the Securities and Exchange Commission (the "Commission") pursuant to the rule filing procedure under Section 19 of the Exchange Act. The assignment of the LLC Interest shall entitle the assignee to exercise the rights of the LLC Member of the Company under this LLC Agreement and to enjoy all of the benefits of the LLC Interest.

Section 22. Dissolution.

(a) The Company shall be dissolved and its affairs shall be wound up upon the first to occur of the following: (i) the consent of the LLC Member and a majority of the whole Board, (ii) the termination of the legal existence of the LLC Member or the occurrence of any other event that terminates the continued membership of the LLC Member in the Company unless the Company is continued without dissolution in a manner permitted by this LLC Agreement or the LLC Act or (iii) the entry of a decree of judicial dissolution under Section 18-802 of the LLC Act.

(b) Notwithstanding any other provision of this LLC Agreement, the Bankruptcy of the LLC Member shall not cause the LLC Member to cease to be an LLC Member of the Company and upon the occurrence of such an event, the Company shall continue without dissolution.

(c) In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority, set forth in Section 18-804 of the LLC Act.

(d) The Company shall terminate when (i) all of the assets of the Company, after payment of or due provision for all debts, liabilities and obligations of the Company, shall have been distributed to the LLC Member in the manner provided for in this LLC Agreement and (ii) the Certificate of Formation shall have been canceled in the manner required by the LLC Act.

Section 23. Benefits of LLC Agreement - No Third-Party Rights. None of the provisions of this LLC Agreement shall be for the benefit of or enforceable by any creditor of the Company or by any creditor of the LLC Member. Nothing in this LLC Agreement shall be deemed to create any right in any Person (other than Covered Persons and to the extent provided

in Article II of the By-Laws, Exchange Members) not a party hereto, and this LLC Agreement shall not be construed in any respect to be a contract in whole or in part for the benefit of any third Person (other than the Covered Persons and to the extent provided in Article II of the By-Laws, Exchange Members).

Section 24. Severability of Provisions. Each provision of this LLC Agreement shall be considered severable and if for any reason any provision or provisions herein are determined to be invalid, unenforceable or illegal under any existing or future law, such invalidity, unenforceability or illegality shall not impair the operation of or affect those portions of this LLC Agreement which are valid, enforceable and legal.

Section 25. Entire LLC Agreement. This LLC Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof.

Section 26. Binding Agreement. Notwithstanding any other provision of this LLC Agreement, the LLC Member agrees that this LLC Agreement constitutes a legal, valid and binding agreement of the LLC Member and is enforceable against the LLC Member, in accordance with its terms.

Section 27. Governing Law. This LLC Agreement shall be governed by and construed under the laws of the State of Delaware (without regard to conflict of laws principles), all rights and remedies being governed by said laws.

Section 28. Amendments.

(a) This LLC Agreement may be modified, altered, supplemented or amended by a resolution adopted by the Board and a written agreement executed and delivered by the LLC Member.

(b) Before any amendment to, or repeal of, any provision of this LLC Agreement shall be effective, those changes shall be submitted to the Board of Directors of the Company and if such amendment or repeal must be filed with or filed with and approved by the Commission, then the proposed changes to this LLC Agreement shall not become effective until filed with or filed with and approved by the Commission, as the case may be.

Section 29. Notices. Any notices required to be delivered hereunder shall be in writing and personally delivered, mailed or sent by telecopy, electronic mail or other similar form of rapid transmission, and shall be deemed to have been duly given upon receipt (i) in the case of the Company, to the Company at its address in Section 3, (ii) in the case of the LLC Member, to the LLC Member at its address as listed on Schedule B attached hereto and (iii) in the case of either of the foregoing, at such other address as may be designated by written notice to the other party.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound hereby, has duly executed this Second Amended and Restated Limited Liability Company Agreement as of the 1st day of December, 2012.

MEMBER:

MIAMI INTERNATIONAL HOLDINGS, INC.

By: Thomas P. Gallagher

Thomas P. Gallagher
Chairman

SCHEDULE A

Definitions

A. Definitions

When used in this LLC Agreement, the following terms not otherwise defined herein have the following meanings:

An "affiliate" of, or person "affiliated" with a specific person, is a person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the person specified.

"Bankruptcy" means, with respect to any Person, if (A) such Person (i) makes an assignment for the benefit of creditors, (ii) files a voluntary petition in bankruptcy, (iii) is adjudged a bankrupt or insolvent, or has entered against it an order for relief, in any bankruptcy or insolvency proceedings, (iv) files a petition or answer seeking for itself any reorganization, arrangement, composition, readjustment, liquidation or similar relief under any statute, law or regulation, (v) files an answer or other pleading admitting or failing to contest the material allegations of a petition filed against it in any proceeding of this nature, or (vi) seeks, consents to or acquiesces in the appointment of a trustee, receiver or liquidator of the Person or of all or any substantial part of its properties; or (B) (i) 120 days after the commencement of any proceeding against the Person seeking reorganization, arrangement, composition, readjustment, liquidation or similar relief under any statute, law or regulation, the proceeding has not been dismissed, or (ii) within 90 days after the appointment without such Person's consent or acquiescence of a trustee, receiver or liquidator of such Person or of all or any substantial part of its properties, the appointment is not vacated or stayed, or within 90 days after the expiration of any such stay, the appointment is not vacated. The foregoing definition of "Bankruptcy" is intended to replace and shall supersede and replace the definition of "Bankruptcy" set forth in Sections 18-101(1) and 18-304 of the LLC Act.

"Board" or "Board of Directors" means the Board of Directors of the Company.

"By-Laws" has the meaning set forth in Section 9(c).

"Certificate of Formation" means the Certificate of Formation of the Company filed with the Secretary of State of the State of Delaware on September 10, 2007 as amended or amended and restated from time to time.

"Commission" means the Securities and Exchange Commission.

"Company" means Miami International Securities Exchange, LLC, a Delaware limited liability company.

"Covered Persons" has the meaning set forth in Section 20.

"Directors" means the Persons elected or appointed to the Board of Directors from time to time in accordance with this LLC Agreement and the By-Laws, in their capacity as managers of the Company.

"Exchange Act" means the Securities Exchange Act of 1934, as amended.

"Exchange Member" means any registered broker or dealer that has been admitted to membership in the national securities exchange operated by the Company. An Exchange Member is not a member of the Company by reason of being an Exchange Member.

"LLC Act" has the meaning set forth in the preamble to this LLC Agreement.

"LLC Agreement" means this Limited Liability Company Agreement of the Company, together with the schedules attached hereto, as amended, restated, supplemented or otherwise modified from time to time.

"LLC Interest" has the meaning set forth in Section 21.

"LLC Member" means Miami International Holdings, Inc., as the sole member of the Company.

"Officer" means an officer of the Company described in Section 10.

"Operating Agreement" has the meaning set forth in the preamble to this LLC Agreement.

"Person" means any individual, corporation, partnership, joint venture, limited liability company, limited liability partnership, association, joint stock company, trust, unincorporated organization or other organization, whether or not a legal entity, and any governmental authority.

"Regulatory Funds" means fees, fines, or penalties derived from the regulatory operations of the Company. "Regulatory Funds" shall not be construed to include revenues derived from listing fees, market data revenues, transaction revenues, or any other aspect of the commercial operations of the Company, even if a portion of such revenues are used to pay costs associated with the regulatory operations of the Company.

B. Rules of Construction

Definitions in this LLC Agreement apply equally to both the singular and plural forms of the defined terms. The words "include" and "including" shall be deemed to be followed by the phrase "without limitation." The terms "herein," "hereof" and "hereunder" and other words of similar import refer to this LLC Agreement as a whole and not to any particular Section, paragraph or subdivision. The Section titles appear as a matter of convenience only and shall not affect the interpretation of this LLC Agreement. All Section, paragraph, clause, Exhibit or Schedule references not attributed to a particular document shall be references to such parts of this LLC Agreement.

SCHEDULE B

LLC Member

Name	Mailing Address	Limited Liability Company Interest
Miami International Holdings, Inc.	7 Roszel Road Princeton, NJ 08540	100%

SCHEDULE C

Directors as of December 1, 2012

	Name	Classification
1.	Thomas P. Gallagher	Industry
2.	Michael P. Ameen	Non-Industry
3.	Lindsay L. Burbage	Non-Industry/Independent
4.	Leslie Florio	Non-Industry/Independent
5.	Lawrence E. Jaffe	Non-Industry/Independent
6.	John E. McCormac	Non-Industry/Independent
7.	William J. O'Brien IV	Non-Industry
8.	Robert D. Prunetti	Non-Industry/Independent
9.	Cynthia Schwarzkopf	Non-Industry/Independent
10.	J. Gray Teekell	Non-Industry

EXHIBIT A

BY-LAWS OF MIAMI INTERNATIONAL SECURITIES EXCHANGE, LLC

Attached

AMENDED AND RESTATED
BY-LAWS
OF
MIAMI INTERNATIONAL SECURITIES EXCHANGE, LLC
(a Delaware limited liability company)

These Amended and Restated By-Laws have been established as the By-Laws of Miami International Securities Exchange, LLC, a Delaware limited liability company (the "Company"), pursuant to the Second Amended and Restated Limited Liability Company Agreement of the Company, dated as of December 1, 2012 (as amended from time to time, the "LLC Agreement"), and, together with the LLC Agreement, constitute the limited liability company agreement of the Company within the meaning of the LLC Act (as defined in the LLC Agreement). In the event of any inconsistency between the LLC Agreement and these By-Laws, the provision of the LLC Agreement shall control.

ARTICLE I
Definitions

When used in these By-Laws, unless the context otherwise requires, the terms set forth below shall have the following meanings:

(a) "Act" means the Securities Exchange Act of 1934, as amended.

(b) An "affiliate" of, or person "affiliated" with a specific person, is a person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the person specified.

(c) "Board" or "Board of Directors" means the Board of Directors of the Company.

(d) "broker" shall have the same meaning as in Section 3(a)(4) of the Act.

(e) "Certificate of Formation" means the Certificate of Formation of the Company filed with the office of the Secretary of State of the State of Delaware on September 10, 2007 as amended or amended and restated from time to time.

(f) "Commission" means the Securities and Exchange Commission.

(g) "Company" means Miami International Securities Exchange, LLC, a Delaware limited liability company.

(h) "day" means calendar day.

(i) "dealer" shall have the same meaning as in Section 3(a)(5) of the Act.

(j) "Director" means the persons elected or appointed to the Board of Directors from time to time in accordance with the LLC Agreement and these By-Laws in their capacity as managers of the Company.

(k) "Effective Date" means the date of effectiveness of these Amended and Restated By-Laws.

(l) "ERP Agreement" means the agreement pursuant to which Units were issued.

(m) "ERP Director" means an Industry Director who has been nominated by an ERP Member and appointed to the Board of Directors.

(n) "ERP Member" means an Exchange Member who acquired Units pursuant to an ERP Agreement sufficient to acquire an ERP Director or an Observer position.

(o) "Exchange" means the national securities exchange operated by the Company.

(p) "Exchange Member" means any registered broker or dealer that has been admitted to membership in the national securities exchange operated by the Company. An Exchange Member is not a member of the Company by reason of being an Exchange Member. An Exchange Member will have the status of a "member" of the Exchange as that term is defined in Section 3(a)(3) of the Act.

(q) "Executive Representative" means the person identified to the Company by an Exchange Member as the individual authorized to represent, vote, and act on behalf of the Exchange Member. An Exchange Member may change its Executive Representative or appoint a substitute for its Executive Representative upon giving notice thereof to the Secretary of the Company via electronic process or such other process as the Company may prescribe. An Executive Representative of an Exchange Member or a substitute shall be a member of senior management of the Exchange Member.

(r) "Independent Director" means a Director who has no material relationship with the Company or any affiliate of the Company, or any Exchange Member or any affiliate of any such Exchange Member; *provided*, however, that an individual who otherwise qualifies as an Independent Director shall not be disqualified from serving in such capacity solely because such Director is a Director of the Company or its LLC Member.

(s) "Independent member" means a member of any committee who has no material relationship with the Company or any affiliate of the Company, or any Exchange Member or any affiliate of any such Exchange Member, other than as a committee member. The term Independent member may but is not required to refer to an Independent Director who serves on a committee.

(t) "Industry Director" means a Director who (i) is or has served in the prior three years as an officer, director, or employee of a broker or dealer, excluding an outside director or a director not engaged in the day-to-day management of a broker or dealer; (ii) is an officer,

director (excluding an outside director), or employee of an entity that owns more than 10% of the equity of a broker or dealer, and the broker or dealer accounts for more than 5% of the gross revenues received by the consolidated entity; (iii) owns more than 5% of the equity securities of any broker or dealer, whose investments in brokers or dealers exceed 10% of his or her net worth, or whose ownership interest otherwise permits him or her to be engaged in the day-to-day management of a broker or dealer; (iv) provides professional services to brokers or dealers, and such services constitute 20% or more of the professional revenues received by the Director or 20% or more of the gross revenues received by the Director's firm or partnership; (v) provides professional services to a director, officer, or employee of a broker, dealer, or corporation that owns 50% or more of the voting stock of a broker or dealer, and such services relate to the director's, officer's, or employee's professional capacity and constitute 20% or more of the professional revenues received by the Director or member or 20% or more of the gross revenues received by the Director's or member's firm or partnership; or (vi) has a consulting or employment relationship with or provides professional services to the Company or any affiliate thereof or has had any such relationship or provided any such services at any time within the prior three years.

(u) "Industry member" means a member of any committee or hearing panel who (i) is or has served in the prior three years as an officer, director, or employee of a broker or dealer, excluding an outside director or a director not engaged in the day-to-day management of a broker or dealer; (ii) is an officer, director (excluding an outside director), or employee of an entity that owns more than 10% of the equity of a broker or dealer, and the broker or dealer accounts for more than 5% of the gross revenues received by the consolidated entity; (iii) owns more than 5% of the equity securities of any broker or dealer, whose investments in brokers or dealers exceed 10% of his or her net worth, or whose ownership interest otherwise permits him or her to be engaged in the day-to-day management of a broker or dealer; (iv) provides professional services to brokers or dealers, and such services constitute 20% or more of the professional revenues received by the Director or 20% or more of the gross revenues received by the Director's firm or partnership; (v) provides professional services to a director, officer, or employee of a broker, dealer, or corporation that owns 50% or more of the voting stock of a broker or dealer, and such services relate to the director's, officer's, or employee's professional capacity and constitute 20% or more of the professional revenues received by the Director or member or 20% or more of the gross revenues received by the Director's or member's firm or partnership; or (vi) has a consulting or employment relationship with or provides professional services to the Company or any affiliate thereof or has had any such relationship or provided any such services at any time within the prior three years.

(v) "List of Candidates" means the list of nominees for Member Representative Director positions as nominated by the Member Nominating Committee and amended by petitions filed by Exchange Members. The List of Candidates is submitted to Exchange Members for the final selection of nominees to be elected by the LLC Member to serve as Member Representative Directors.

(w) "LLC Act" means the Delaware Limited Liability Company Act, 6 §18-101, et seq.

(x) "LLC Member" means any person who maintains a direct ownership interest in the Company. The sole LLC Member of the Company shall be Miami International Holdings, Inc.

(y) "Measurement Period" means the time period over which Units are vested.

(z) "Member Nominating Committee" means the Member Nominating Committee elected pursuant to these By-Laws.

(aa) "Member Representative Director" means a Director who has been elected by the LLC Member after having been nominated by the Member Nominating Committee or by an Exchange Member pursuant to these By-Laws and confirmed as the nominee of Exchange Members after majority vote of Exchange Members, if applicable. A Member Representative Director may, but is not required to be an officer, director, employee, or agent of an Exchange Member.

(bb) "Member Representative member" means a member of any committee or hearing panel appointed by the Board who has been elected or appointed after having been nominated by the Member Nominating Committee pursuant to these By-Laws and who is an officer, director, employee, or agent of an Exchange Member.

(cc) "Nominating Committee" means the Nominating Committee elected pursuant to these By-Laws.

(dd) "Non-Industry Director" means a Director who is (i) an Independent Director; or (ii) any other individual who would not be an Industry Director.

(ee) "Non-Industry member" means a member of any committee who is (i) an Independent member; or (ii) any other individual who would not be an Industry member.

(ff) "Observer" has the meaning set forth in Article II, Section 2.2 of these By-Laws.

(gg) "Performance Criteria" means the trades on MIAX in an amount equal to a percentage of the average daily volume of contracts traded on all options exchanges for all option classes listed on MIAX as reported to The Options Clearing Corporation for a specified Measurement Period in an amount such that the ERP Member earns Units during such specified Measurement Period.

(hh) "person" shall mean a natural person, partnership, corporation, limited liability company, entity, government, or political subdivision, agency or instrumentality of a government.

(ii) "person associated with an Exchange Member" or "associated person of an Exchange Member" means any partner, officer, or director of an Exchange Member (or person occupying a similar status or performing similar functions), any person directly or indirectly

controlling, controlled by, or under common control with such Exchange Member, or any employee of such Exchange Member.

(jj) "Record Date" means a date at least thirty-five (35) days before the date announced as the date for the annual meeting of the LLC Member and set as the last date on which Exchange Members may petition to add to the List of Candidates and used to determine whether Exchange Members are entitled to vote on the final List of Candidates.

(kk) "registered broker or dealer" means any registered broker or dealer, as defined in Section 3(a)(48) of the Act, that is registered with the Commission under the Act.

(ll) "Regulatory Funds" means fees, fines, or penalties derived from the regulatory operations of the Company. "Regulatory Funds" shall not be construed to include revenues derived from listing fees, market data revenues, transaction revenues, or any other aspect of the commercial operations of the Company, even if a portion of such revenues are used to pay costs associated with the regulatory operations of the Company.

(mm) "Rules" or "Exchange Rules" shall have the same meaning as set forth in Section 3(a)(27) of the Act.

(nn) "statutory disqualification" shall have the same meaning as in Section 3(a)(39) of the Act.

(oo) "Unit" means a combination of securities or types of securities packaged together as one.

ARTICLE II
Board of Directors

Section 2.1 Powers

(a) The business and affairs of the Company shall be managed by its Board, except to the extent that the authority, powers and duties of such management shall be delegated to a committee or committees of the Board pursuant to these By-Laws or the Rules. The Board of Directors shall have the power to do any and all acts necessary, convenient or incidental to or for the furtherance of the purposes described herein, including all powers, statutory or otherwise. To the fullest extent permitted by applicable law and these By-Laws, the Board may delegate any of its powers to a committee appointed pursuant to Article IV or to any officer, employee or agent of the Company.

(b) The Board shall have the power to adopt, amend or repeal the Rules in accordance with Article IX, Section 9.1.

(c) The Board may adopt such rules, regulations, and requirements for the conduct of the business and management of the Company, not inconsistent with law, the Certificate of Formation, the LLC Agreement or these By-Laws, as the Board may deem proper.

A Director shall, in the performance of such Director's duties, be fully protected, to the fullest extent permitted by law, in relying in good faith upon the books of account or reports made to the Company by any of its officers, by an independent certified public accountant, by an appraiser selected with reasonable care by the Board or any committee of the Board or by any agent of the Company, or in relying in good faith upon other records of the Company.

(d) In connection with managing the business and affairs of the Company, the Board shall consider applicable requirements for registration as a national securities exchange under Section 6(b) of the Act, including, without limitation, the requirements that (i) the Rules shall be designed to protect investors and the public interest and (ii) the Company shall be so organized and have the capacity to carry out the purposes of the Act and to enforce compliance by its "members," as that term is defined in Section 3 of the Act (such statutory members being referred to in these By-Laws as "Exchange Members") and persons associated with Exchange Members, with the provisions of the Act, the rules and regulations under the Act, and the Rules of the Exchange. In furtherance of the foregoing, the Board shall, among other things, approve the Exchange's budget which shall be adequate for the operation of the Exchange and for the Exchange to carry out its responsibilities under the Act. In connection therewith, the Board shall approve the Exchange's regulatory budget which shall be adequate for the regulation of the Exchange.

(e) In light of the unique nature of the Company and its operations and in light of the Company's status as a self-regulatory organization, the Board, when evaluating any proposal, shall, to the fullest extent permitted by applicable law, take into account all factors that the Board deems relevant, including, without limitation, to the extent deemed relevant: (i) the potential impact thereof on the integrity, continuity and stability of the national securities exchange operated by the Company and the other operations of the Company, on the ability to prevent fraudulent and manipulative acts and practices and on investors and the public, and (ii) whether such would promote just and equitable principles of trade, foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to and facilitating transactions in securities or assist in the removal of impediments to or perfection of the mechanisms for a free and open market and a national market system.

Section 2.2 Composition of the Board and Observer Rights

(a) The number of Directors shall be not less than ten (10) including the Chief Executive Officer of the Company. The number of Directors may be fixed from time to time by the LLC Member at any time in its sole and absolute discretion, upon notice to all Directors subject to the minimum number provided for in this Section 2.2(a). No decrease in the number of Directors shall have the effect of shortening the term of any incumbent Director.

(b) At all times the Board of Directors shall consist of one (1) Director who is the Chief Executive Officer of the Company and sufficient numbers of Non-Industry (including Independent), Industry and Member Representative Directors to meet the following composition requirements:

(i) The number of Non-Industry Directors, including at least one Independent Director, shall equal or exceed the sum of the number of Industry Directors (including the ERP Directors) and Member Representative Directors elected pursuant to Article II, or Section 2.4; and

(ii) The number of Member Representative Directors (which shall not include the ERP Directors) shall be at least twenty (20) percent of the Board.

(c) The Secretary shall collect from each nominee for Director such information as is reasonably necessary to serve as the basis for a determination of the nominee's classification as a Member Representative, Non-Industry or Independent Director, if applicable, and the Secretary shall certify to the Nominating Committee or Member Nominating Committee each nominee's classification, if applicable. Directors shall update the information submitted under this subsection at least annually and upon request of the Secretary, and shall report immediately to the Secretary any change in such information.

(d) A Director may not be subject to a statutory disqualification.

(e) Any ERP Member (either by itself or with its affiliates) that is not otherwise represented on the Board may have the right to nominate one (1) ERP Director or appoint an Observer to the Board of Directors. If at any time such ERP Member is otherwise able to nominate an ERP Director hereunder but is unable to fill such position as a result of such ERP Member already having a representative on the Board, such ERP Member will have the right to nominate such Director in accordance with this Article II, Section 2.2(e) upon the resignation or removal of such Director already serving on the Board. The ERP Member's right to nominate a Director or appoint an Observer pursuant to this Section 2.2(e) shall be perpetual, subject to the provisions of Section 2.3 below. The nominee shall be appointed at the first annual meeting of the Company following the Effective Date.

(f) If an ERP Director position needs to be added pursuant to Article II, Section 2.2(e), such ERP Director shall be nominated by the applicable ERP Member and elected by the LLC Member and additional Director positions shall be added and filled at the same time as the election of the new ERP Director, as required to comply with the requirements set forth in Article II, Section 2.2(a) and (b).

(g) As per Section 2.2(e), a person may be invited to attend meetings of the Board in a nonvoting observer capacity as follows ("Observers"):

(i) Any ERP Member that is not otherwise represented on the Board shall have the right to appoint one individual as an Observer. If the ERP Member is otherwise able to nominate an ERP Director, an Observer appointment would be in lieu of such ERP Director nomination.

(ii) The ERP Member's right to appoint an Observer pursuant to this Section 2.2(g) shall be perpetual, subject to the provisions of Section 2.3 below. An Observer may not be subject to a statutory disqualification.

(iii) The Company shall invite the Observers to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents, and other materials that it provides to its Directors at the same time and in the same manner as provided to such Directors; provided, however, that such representative shall agree to hold in confidence and trust and to act in a fiduciary manner with respect to all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or result in disclosure of trade secrets or a conflict of interest.

Section 2.3 Terms of Office

(a) The Board term of the Chief Executive Officer shall expire when such individual ceases to be Chief Executive Officer of the Company.

(b) Each of the Non-Industry and Industry Directors (including Member Representative Directors) other than the ERP Directors shall be divided into three (3) classes, designated Class I, Class II and Class III, which shall be as nearly equal in number and classification as the total number of such Directors then serving on the Board permits. Directors other than the Chief Executive Officer or the ERP Directors shall serve staggered three-year terms, with the term of office of one class expiring each year. A Director may serve for any number of terms, consecutive or otherwise. In order to commence such staggered three-year terms, Directors in Class I shall hold office until the second annual election of the Board of Directors, Directors in Class II shall initially hold office until the third annual election of the Board of Directors, and Directors in Class III shall initially hold office until the fourth annual election of the Board of Directors. Commencing with the second annual election of the Board of Directors, the term of office for each class of Directors elected at such time shall be three years from the date of their election. Notwithstanding the foregoing, in the case of any new Director as contemplated by Article II, Section 2.2(a), such Director shall be added to a class, as determined by the Board at the time of such Director's initial election or appointment, and shall have an initial term expiring at the same time as the term of the class to which such Director has been added. The Board term of the ERP Directors shall expire as set forth in Article II, Section 2.3 (c), (d) and (e) below.

(c) In the event that an ERP Member (either by itself or with its affiliates) who has the right to nominate an ERP Director and which fails to meet its Performance Criteria for three consecutive Measurement Periods such that it only meets the required performance criteria of an ERP Member that may appoint an Observer, the individual designated by the non-performing ERP Member shall immediately cease to be an ERP Director of the Company and such ERP Member shall cease to have the right to nominate an ERP Director. Such non-performing ERP Member shall continue to maintain Observer rights as set forth in Article II, Section 2.2(g), subject to the provisions of Section 2.3(e) below. Notwithstanding the foregoing, in the event that the non-performing ERP Member satisfies the Performance Criteria for a subsequent Measurement Period, then such ERP Member may renominate an ERP Director for election at the immediately following annual meeting of the Company.

(d) In the event that an ERP Member (either by itself or with its affiliates) who has the right to appoint an Observer and which fails to meet its Performance Criteria for three consecutive Measurement Periods, the individual designated by the non-performing ERP Member shall immediately cease to be an Observer and such non-performing ERP Member shall cease to have the right to appoint an Observer. Notwithstanding the foregoing, in the event that the non-performing ERP Member satisfies the Performance Criteria for a subsequent Measurement Period, then such ERP Member may reappoint an Observer.

(e) An individual ERP Director or Observer position shall be immediately terminated following the transfer of common stock or warrants of the LLC Member acquired pursuant to the ERP Agreement by an ERP Member which, after giving effect to such transfer, results in such ERP Member holding less than 20% of the aggregate number of shares of common stock of the LLC Member issued or issuable pursuant to the Units acquired pursuant to the ERP Agreement collectively.

Section 2.4 Nomination and Election

(a) The Nominating Committee each year shall nominate Directors for each Director position standing for election at the annual meeting of the LLC Member that year. For positions requiring persons who qualify as Member Representative Directors, the Nominating Committee shall nominate only those persons whose names have been approved and submitted by the Member Nominating Committee, and approved by, if applicable, Exchange Members pursuant to the procedures set forth below in this Section 2.4. For Director positions requiring persons who qualify as ERP Directors, the Nominating Committee shall nominate only those persons whose names have been approved and submitted by the applicable ERP Members having the right to nominate such person pursuant to Article II, Section 2.2 of these By-Laws.

(b) The Member Nominating Committee shall consult with the Nominating Committee, the Chairman and Chief Executive Officer, and shall solicit comments from Exchange Members for the purpose of approving and submitting names of candidates for election to the position of Member Representative Director. A Member Representative Director may, but is not required to be an officer, director, employee, or agent of an Exchange Member.

(c) Not later than sixty (60) days prior to the date announced as the date for the annual meeting of the LLC Member, the Member Nominating Committee shall report to the Nominating Committee and the Secretary the initial nominees for Member Representative Director positions on the Board that have been approved and submitted by the Member Nominating Committee. The Secretary shall promptly notify Exchange Members of those initial nominees. Exchange Members may identify other candidates ("Petition Candidates" for purposes of this Section 2.4) for the Member Representative Director positions by delivering to the Secretary, at least thirty-five (35) days before the date announced as the date for the annual meeting of the LLC Member (the "Record Date" for purposes of this Section 2.4), a written petition, which shall designate the candidate by name and office and shall be signed by Executive Representatives of ten percent (10%) or more of the Exchange Members. An Exchange Member may endorse as many candidates as there are Member Representative

Director positions to be filled. No Exchange Member, together with its affiliates, may account for more than fifty percent (50%) of the signatures endorsing a particular candidate, and any signatures of such Exchange Member, together with its affiliates, in excess of the fifty percent (50%) limitation shall be disregarded.

(d) Each petition for a Petition Candidate must include a completed questionnaire used to gather information concerning Member Representative Director candidates and must be filed with the Company (the Company shall provide the form of questionnaire upon the request of any Exchange Member).

(e) If no valid petitions from Exchange Members are received by the Record Date, the initial nominees approved and submitted by the Member Nominating Committee shall be nominated as Member Representative Directors by the Nominating Committee. If one or more valid petitions from Exchange Members are received by the Record Date, the Secretary shall include such additional nominees, along with the initial nominees nominated by the Member Nominating Committee, on a list of nominees (the "List of Candidates"). Upon completion, the List of Candidates shall be sent by the Secretary to all Exchange Members that were Exchange Members on the Record Date, by any means, including electronic transmission, to confirm the nominees for the Member Representative Director positions. The List of Candidates shall be accompanied by a notice regarding the time and date of an election to be held at least twenty (20) days prior to the annual LLC Member meeting to confirm the Exchange Members' selections of nominees for Member Representative Directors.

(f) With respect to the election held to determine the final nomination of Member Representative Directors, each Exchange Member shall have the right to cast one (1) vote for each available Member Representative Director nomination; provided, however, that any such vote must be cast for a person on the List of Candidates and that no Exchange Member, together with its affiliates, may account for more than twenty percent (20%) of the votes cast for a candidate, and any votes cast by such Exchange Member, together with its affiliates, in excess of such twenty percent (20%) limitation shall be disregarded. The votes shall be cast by written ballot, electronic transmission or any other means as set forth in a notice to the Exchange Members sent by the Company prior to such election. Only votes received prior to 5:00 p.m. Eastern Time on the date of the election shall count for the nomination of a Member Representative Director. The persons on the List of Candidates who receive the most votes shall be selected as the nominees for the Member Representative Director positions to be elected by the LLC Member. Tie votes by the Exchange Members shall be decided by the Member Nominating Committee.

Section 2.5 [Reserved]

Section 2.6 Chairman of the Board

The Board shall appoint one of the Directors to serve as the Chairman of the Board ("Chairman"). The Chairman shall preside at all meetings of the Board at which the Chairman is present; provided, however, that if the Chairman is the Chief Executive Officer he or she shall not participate in executive sessions of the Board. The Chairman shall exercise such other

powers and perform such other duties as may be assigned to the Chairman from time to time by the Board. If the Chairman is the Chief Executive Officer, the Board of Directors shall designate a Lead Director from among the Board's Independent Directors to preside over executive sessions of the Board. The Board shall publicly disclose the identity of the Lead Director, if any, and the means by which interested parties may communicate with such Lead Director.

Section 2.7 Vice Chairman

Each year following the annual election of the Directors, the Board may select a Vice Chairman of the Board (the "Vice Chairman") to serve for a term of one year and until a successor is elected or appointed and qualified. The Vice Chairman shall (i) preside over the meetings of the Board in the event the Chairman of the Board is absent or unable to do so, and (ii) exercise such other powers and perform such other duties as are delegated to the Vice Chairman of the Board by the Board.

Section 2.8 Vacancies

(a) Whenever any Director position becomes vacant prior to the election of a successor at the end of such Director's term, whether because of death, disability, disqualification, removal, or resignation, the Nominating Committee shall nominate, and the LLC Member shall elect, a person satisfying the classification (Industry, Non-Industry, or Independent Director), if applicable, for the directorship as provided in Article II, Section 2.2(b) to fill such vacancy; *provided,* however, that if the remaining term of office of a Member Representative Director at the time of such Director's termination is not more than six months, during the period of vacancy the Board shall not be deemed to be in violation of Article II, Section 2.2(b) by virtue of such vacancy.

(b) If the LLC Member fills a vacancy resulting from a Member Representative Director position becoming vacant prior to the expiration of such Member Representative Director's term, or resulting from the creation of an additional Member Representative Director position required by an increase in the size of the Board, then the LLC Member shall follow the procedures set forth in this Section 2.8(b). In such an event, the Member Nominating Committee shall either (i) recommend an individual to the LLC Member to be elected to fill such vacancy or (ii) provide a list of recommended individuals to the LLC Member from which the LLC Member shall elect the individual to fill such vacancy. The LLC Member shall elect, pursuant to this Section 2.8(b), only individuals recommended by the Member Nominating Committee.

(c) If an ERP Director position becomes vacant for a reason other than failure by an ERP Member to meet its Performance Criteria as set forth in Article II, Section 2.3(c), then the LLC Member shall follow the procedures set forth in this Section 2.8(c). In such an event, the Nominating Committee shall recommend an individual to the LLC Member to be elected to fill such vacancy that has been nominated by the applicable ERP Member having the right to nominate such person pursuant to Article II, Section 2.2 of these By-Laws. The LLC Member shall elect, pursuant to this Section 2.8(c), only individuals recommended by the Nominating Committee.

Section 2.9 Removal and Resignation

(a) Except as hereinafter provided, any Director may be removed or expelled with or without cause by the LLC Member, and may be removed by the Board of Directors in the manner provided by Article II, Section 2.9(b) below; provided, however, that any Member Representative Director or ERP Director may only be removed for cause, which shall include, without limitation, such Director being subject to a statutory disqualification.

(b) A Director shall be removed immediately upon a determination by the Board, by a majority vote of the remaining Directors: (i) that the Director no longer satisfies the classification for which the Director was elected; and (ii) that the Director's continued service as such would violate the compositional requirements of the Board set forth in Article II, Section 2.2(b).

(c) Any Director may resign at any time either upon notice of resignation to the Chairman of the Board, the President or the Secretary. Any such resignation shall take effect at the time specified therein or, if the time is not specified, upon receipt thereof, and the acceptance of such resignation, unless required by the terms thereof, shall not be necessary to make such resignation effective.

Section 2.10 Place of Meetings; Mode

Any meeting of the Board may be held at such place, within or without the State of Delaware, as shall be designated in the notice of such meeting, but if no such designation is made, then the meeting will be held at the principal business office of the Company. Members of the Board or any committee of the Board may participate in a meeting of the Board or committee by conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

Section 2.11 Regular Meetings

Regular meetings of the Board may be held, with or without notice, at such time or place as may from time to time be specified in a resolution adopted by the Board.

Section 2.12 Special Meetings

(a) Special meetings of the Board may be called on a minimum of two (2) days' notice to each Director by the Chairman, the Chief Executive Officer or the President, and shall be called by the Secretary upon the written request of three (3) Directors then in office.

(b) The person or persons calling a special meeting of the Board shall fix the time and place at which the meeting shall be held, and such time and place shall be specified in the notice of such meeting. Notice of any special meeting shall be given to each Director at his or her business address or such other address as he or she may have advised the Secretary to use for

such purpose. If delivered, notice shall be deemed to be given when delivered to such address or to the Director to be notified. If mailed, such notice shall be deemed to be given five (5) business days after deposit in the United States mail, postage prepaid, of a letter addressed to the appropriate location. Notice may also be given by telephone, electronic transmission or other means not specified in this section, and in each such case shall be deemed to be given when actually received by the Director to be notified.

Section 2.13 Exchange Member Meetings

The Company shall not be required to hold meetings of the Exchange Members.

Section 2.14 Voting, Quorum and Action by the Board

Each Director shall be entitled to one (1) vote. At all meetings of the Board, the presence of a majority of the number of Directors then in office shall constitute a quorum for the transaction of business. If a quorum shall not be present at any meeting of the Board, the Directors present at such meeting may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. The act of a majority of the Directors present at any meeting at which there is a quorum shall be the act of the Board except as may be otherwise specifically provided by statute, the Certificate of Formation, the LLC Agreement or these By-Laws.

Section 2.15 Presumption of Assent

A Director of the Company who is present at a duly convened meeting of the Board or of a committee of the Board at which action on any corporate matter is taken shall be conclusively presumed to have assented to the action taken unless his or her dissent or election to abstain shall be entered in the minutes of the meeting or unless he or she shall file his or her written dissent or election to abstain to such action with the person acting as the secretary of the meeting before the adjournment of the meeting or shall forward such dissent or election to abstain by registered or certified mail to the Secretary of the Company immediately after the adjournment of the meeting. Such right to dissent or abstain shall not apply to a Director who voted in favor of such action.

Section 2.16 Action in Lieu of Meeting

Unless otherwise restricted by statute, the Certificate of Formation, the LLC Agreement or these By-Laws, any action required or permitted to be taken at any meeting of the Board or any committee thereof may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing(s) or electronic transmission(s) are filed with the minutes of proceedings of the Board or the committee.

Section 2.17 Waiver of Notice

(a) Whenever notice is required to be given by law, the Certificate of Formation, the LLC Agreement or these By-Laws, a waiver thereof by the person or persons

entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board, or members of a committee, need be specified in any waiver of notice.

(b) Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

Section 2.18 Compensation of Board and Committee Members

The Board may provide for reasonable compensation of the Chairman, the Directors and the members of committees. The Board may also provide for reimbursement of reasonable expenses incurred by such persons in connection with the business of the Company.

Section 2.19 Interpretation of By-Laws

The Board shall have the power to interpret these By-Laws and any interpretation made by it shall be final and conclusive.

Section 2.20 Conflicts of Interest; Contracts and Transactions Involving Directors

(a) A Director or a member of any committee may not participate in the consideration or decision of any matter relating to a particular Exchange Member, company, or individual if such Director or committee member has a material interest in, or a professional, business, or personal relationship with, that Exchange Member, company, or individual, or if such participation shall create an appearance of impropriety. In any such case, the Director or committee member shall recuse himself or herself or shall be disqualified. If a member of the Board or any committee is recused from consideration of a matter, any decision on the matter shall be by a vote of a majority of the remaining members of the Board or applicable committee.

(b) No contract or transaction between the Company and one or more of its Directors or officers, or between the Company and any other corporation, partnership, association, or other organization in which one or more of its Directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason if: (i) the material facts pertaining to such Director's or officer's relationship or interest and the contract or transaction are disclosed or are known to the Board or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative vote of a majority of the disinterested Directors, even though the disinterested Directors be less than a quorum; or (ii) the material facts are disclosed or become known to the Board or committee after the contract or transaction is entered into, and the Board or committee in good faith ratifies the contract or transaction by the affirmative vote of a majority of the disinterested Directors, even though the disinterested Directors be less than a quorum.

ARTICLE III
The LLC Member

Section 3.1 Annual Meeting; Election of Directors and Other Matters

The annual meeting of the LLC Member shall be held at such place and time as determined by the Board for the purpose of electing Directors and members of the Nominating Committee and Member Nominating Committee, and for conducting such other business as may properly come before the meeting. Written notice of the annual meeting stating the place, date and hour of the meeting shall be given to the LLC Member not less than ten (10) nor more than sixty (60) days before the date of the meeting.

Section 3.2 Special Meetings

Special meetings of the LLC Member, for any purpose or purposes, may be called by the Chairman, the Board, the Chief Executive Officer or the President, and shall be called by the Secretary at the request in writing of the LLC Member. Written notice of a special meeting stating the place, date and hour of the meeting and the purpose or purposes for which the meeting is called, shall be given to the LLC Member not less than ten (10) nor more than sixty (60) days before the date of the meeting. Business transacted at any special meeting of the LLC Member shall be limited to the purpose(s) stated in the notice of the meeting.

Section 3.3 Action in Lieu of Meeting

Any action upon which a vote of the LLC Member is required or permitted, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the LLC Member.

Section 3.4 Assignment

The LLC Member may not transfer or assign in whole or in part its limited liability company interest in the Company to any entity, unless such transfer or assignment shall be filed with and approved by the Commission under Section 19 of the Exchange Act and the rules promulgated thereunder.

ARTICLE IV
Committees

Section 4.1 Designation of Committees

(a) **Committees of the Board.** The committees of the Board shall consist of a Compensation Committee, an Audit Committee, a Regulatory Oversight Committee, an Appeals Committee, and such other committees as may be provided in these By-Laws or the Rules or as may be from time to time established by the Board. Committees shall have such authority as is vested in them by these By-Laws or the Rules, or as is delegated to them by the Board. All committees are subject to the control and supervision of the Board.

(b) **Committees of the Exchange.** The Exchange also shall have such other committees as may be provided in these By-Laws or the Rules or as may be from time to time created by the Board. Except as may be otherwise provided in these By-Laws, the Rules or the resolution of the Board establishing any such other committee, the Chairman or his or her designee, with the approval of the Board, shall appoint the members of such Exchange committees (other than the committees of the Board) and may designate, with the approval of the Board, a Chairman thereof. Except as may be otherwise provided in these By-Laws or the Rules, the Chairman or his or her designee may, at any time, with or without cause, remove any member of any such Exchange committee.

Section 4.2 Board Committees - Appointment and Removal; Vacancies; Term

(a) Except as may be otherwise provided in these By-Laws, the Rules or the resolution of the Board establishing any committee, the Chairman, with the approval of the Board, shall appoint, consistent with these By-Laws, the members of all committees of the Board, and the Chairman may, at any time, with or without cause, remove any member of a committee so appointed, with the approval of the Board. Each committee shall be comprised of at least three (3) people and except as provided in these By-Laws may include persons who are not members of the Board; provided, however, that such committee members who are not also members of the Board shall only participate in committee actions to the extent permitted by law. In appointing members to committees of the Board, the Chairman is responsible for determining that any such committee meets the composition requirements set forth in this Article IV.

(b) Upon request of the Secretary, each prospective committee member who is not a Director shall provide to the Secretary such information as is reasonably necessary to serve as the basis for a determination of the prospective committee member's classification as an Industry, Non-Industry, or Independent member. The Secretary shall certify to the Board each prospective committee member's classification. Such committee members shall update the information submitted under this subsection at least annually and upon request of the Secretary, and shall report immediately to the Secretary any change in such information. A committee member may not be subject to a statutory disqualification.

(c) The term of office of a committee member shall terminate immediately upon a determination by the Board, by a majority vote of the Directors, (i) that the committee member no longer satisfies the classification for which the committee member was selected; and (ii) that the committee member's continued service as such would violate the compositional requirements of such committee set forth in this Article IV.

(d) Any vacancy occurring in a committee shall be filled by the Chairman for the remainder of the term, with the approval of the Board.

(e) Except as otherwise provided by the By-Laws, members of a committee shall hold office for a one-year period.

Section 4.3 Conduct of Proceedings

Except as otherwise provided in these By-Laws, the Rules, the Charter of the committee or by the Board by resolution, each committee may adopt its own rules of procedure and may meet at stated times or on such notice as such committee may determine. In the absence of any such established procedures, each committee shall conduct its business in the same manner as the Board of Directors conducts its business pursuant to Article II of these By-Laws. Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

Section 4.4 Voting, Quorum and Action by Committees

Each committee member shall be entitled to one (1) vote. Unless otherwise required by the By-Laws, the Rules or the Charter of the committee, the presence of a majority of the number of committee members serving on a committee shall constitute a quorum for the transaction of business of such committee. If a quorum shall not be present at any meeting of a committee, the committee members present at such meeting may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. The act of a majority of the committee members present at any meeting at which there is a quorum shall be the act of such committee except as may be otherwise specifically provided by statute or these By-Laws, the Rules or the Charter of the committee.

Section 4.5 Specified Board Committees

(a) **Compensation Committee.** The Chairman, with the approval of the Board, shall appoint a Compensation Committee consisting of Non-Industry Directors. The Compensation Committee shall consider and recommend compensation policies, programs, and practices for officers and other employees of the Company.

(b) **Audit Committee.** The Chairman, with the approval of the Board, shall appoint an Audit Committee consisting of Directors. A majority of the Audit Committee members shall be Non-Industry Directors. A Non-Industry Director shall serve as Chairman of the Audit Committee. The Audit Committee shall perform the following primary functions, as well as such other functions as may be specified in the charter of the Audit Committee: (i) provide oversight over the Company's financial reporting process and the financial information that is provided to the LLC Member and others; (ii) provide oversight over the systems of internal controls established by management and the Board and the Company's legal and compliance process; and (iii) direct and oversee all the activities of the Company's internal audit function, including but not limited to management's responsiveness to internal audit recommendations. The Audit Committee shall have exclusive authority to: (i) hire or terminate the head of the Company's Internal Audit Department; (ii) determine the compensation of the head of the Internal Audit Department; and (iii) determine the budget for the Internal Audit Department. The Internal Audit Department and its head shall report directly to the Audit Committee. The Audit Committee may, in its discretion, direct that the Internal Audit Department also report to senior management of the Company on matters the Audit Committee deems appropriate and may request that senior management of the Company perform such

operational oversight as necessary and proper, consistent with preservation of the independence of the internal audit function.

(c) **Regulatory Oversight Committee.** The Chairman, with the approval of the Board, shall appoint a Regulatory Oversight Committee consisting of Non-Industry Directors. The Regulatory Oversight Committee shall oversee the adequacy and effectiveness of Exchange's regulatory and self-regulatory organization responsibilities, and shall be responsible for assessing the Exchange's regulatory performance and recommending compensation and personnel actions involving the Chief Regulatory Officer and senior regulatory personnel to the Board's Compensation Committee for action. The Regulatory Oversight Committee shall also assist the Board and committees of the Board in reviewing the regulatory plan and the overall effectiveness of Exchange's regulatory functions. In furtherance of its functions, the Regulatory Oversight Committee (i) shall review the Exchange's regulatory budget, which shall be approved by the Board of Directors, and shall specifically inquire into the adequacy of resources available in the budget for regulatory activities; and (ii) shall meet regularly with the Chief Regulatory Officer in executive session.

(d) **Appeals Committee.** The Chairman, with the approval of the Board, shall appoint an Appeals Committee. The Appeals Committee shall preside over all appeals related to disciplinary and adverse action determinations in accordance with the Exchange Rules. The Appeals Committee shall consist of one Independent Director, one Industry Director, and one Member Representative Director. If the Independent Director recuses himself or herself from an appeal, due to a conflict of interest or otherwise, such Independent Director may be replaced by a Non-Industry Director for purposes of the applicable appeal if there is no other Independent Director able to serve as the replacement.

(e) **Executive Committee.** The Chairman, with the approval of the Board, may appoint an Executive Committee consisting of Directors, which shall, to the fullest extent permitted by Delaware law and other applicable law, have and be permitted to exercise all the powers and authority of the Board in the management of the business and affairs of the Company between meetings of the Board. The number of Non-Industry Directors on the Executive Committee shall equal or exceed the number of Industry Directors on the Executive Committee. The percentage of Independent Directors on the Executive Committee shall be at least as great as the percentage of Independent Directors on the whole Board, and the percentage of Member Representative Directors on the Executive Committee shall be at least as great as the percentage of Member Representative Directors on the whole Board.

(f) **Finance Committee.** The Chairman, with the approval of the Board, may appoint a Finance Committee consisting of Directors. A majority of the Finance Committee members shall be Non–Industry Directors. The Finance Committee shall advise the Board with respect to the oversight of the financial operations and conditions of the Company, including recommendations for Company's annual operating and capital budgets.

Section 4.6 Quality of Markets Committee.

The Chairman, with the approval of the Board, shall appoint a Quality of Markets Committee. The Quality of Markets Committee shall provide advice and guidance to the Board on issues relating to the fairness, integrity, efficiency and competitiveness of the information, order handling and execution mechanisms of the Exchange from the perspective of investors, both individual and institutional, retail firms, market making firms, Exchange listed companies and other market participants. The Quality of Markets Committee shall include broad representation of participants in the Exchange, including investors, market makers, integrated retail firms and order entry firms. The Quality of Markets Committee shall include a number of Member Representative members that is equal to at least 20 percent of the total number of members of the Quality of Markets Committee. The number of Non-Industry members of the Quality of Markets Committee shall equal or exceed the sum of the number of Industry members and Member Representative members.

Section 4.7 Business Conduct Committee

There shall be a Business Conduct Committee which shall not be a Board Committee but shall be a committee of the Exchange. The Chairman shall appoint a Business Conduct Committee composed of such number of Exchange Members and individuals who are not Exchange Members as the Chairman shall deem necessary, none of whom shall be Directors. The Business Conduct Committee or any panel thereof shall include at least one officer, director or employee of an Exchange Member.

The jurisdiction, function and powers shall be exercised by the Business Conduct Committee in accordance with the provisions set forth in the MIAX Rules.

ARTICLE V
Nominating Committees

Section 5.1 Election of Nominating Committee and Member Nominating Committee

The Nominating Committee and the Member Nominating Committee shall each be elected on an annual basis by vote of the LLC Member. The LLC Member shall appoint the initial Nominating Committee and Member Nominating Committee consistent with the compositional requirements of this Article V within fifteen (15) days after the Exchange's application for registration as a national securities exchange is granted. Because the first annual meeting of the LLC Member is intended to be held within ninety (90) days after the Exchange's application for registration as a national securities exchange is granted, the initial Nominating Committee and Member Nominating Committee shall serve until the second annual meeting of the LLC Member. Not later than sixty (60) days prior to the date announced as the date for each annual meeting of the LLC Member commencing with the second annual meeting of the LLC Member, the Nominating Committee and the Member Nominating Committee shall nominate candidates to serve on the succeeding year's Nominating Committee and Member Nominating Committee, as applicable, and notify the Secretary of such nominees. Such candidates shall be voted on by the LLC Member at the annual meeting of the LLC Member. Additional candidates

for the Member Nominating Committee may be nominated and elected pursuant to the same process as provided for in Article II, Section 2.4.

Section 5.2 Nominating Committee

The Nominating Committee shall nominate candidates for election to the Board at the annual LLC Member meeting and all other vacant or new Director positions on the Board. The Nominating Committee, in making such nominations, is responsible for ensuring that candidates meet the compositional requirements of Article II, Section 2.2(b). The number of Non-Industry members on the Nominating Committee shall equal or exceed the number of Industry members on the Nominating Committee. A Nominating Committee member may not simultaneously serve on the Nominating Committee and the Board, unless such member is in his or her final year of service on the Board, and following that year, that member may not stand for election to the Board until such time as he or she is no longer a member of the Nominating Committee. No more than one (1) member of the Nominating Committee shall be a current Director, and such Director shall be a Non-Industry Director.

Section 5.3 Member Nominating Committee

The Member Nominating Committee shall nominate candidates for each Member Representative Director position on the Board that is to be elected by Exchange Members or the LLC Member under the terms of these By-Laws. Each member of the Member Nominating Committee shall be a Member Representative member and shall not be required to be a Director of the Company.

ARTICLE VI
Officers, Agents and Employees

Section 6.1 General

The officers of the Company shall include a Chief Executive Officer, a President, a Chief Financial Officer, a Chief Regulatory Officer, a Secretary, a Treasurer, and such other officers as in the Board's opinion are desirable for the conduct of the business of the Company, including but not limited to a Vice Chairman. Any two or more offices may be held by the same person, except that the offices of the President and Secretary may not be held by the same person. No person that is subject to any statutory disqualification may be an officer of the Company.

Section 6.2 Appointment and Tenure

Each officer of the Company shall be appointed by the Board on an annual basis, and shall hold office until his or her successor is appointed and qualified or until his or her earlier death, disability, disqualification, removal or resignation. An officer may serve for any number of terms, consecutive or otherwise.

Section 6.3 Resignation and Removal of Officers; Vacancies

(a) Any officer may resign at any time upon notice of resignation to the Chairman and Chief Executive Officer, the President, or the Secretary. Any such resignation shall take effect upon receipt of such notice or at any later time specified therein, or if the time is not specified, upon receipt thereof, and the acceptance of such resignation, unless required by the terms thereof, shall not be necessary to make such resignation effective.

(b) Any officer of the Company may be removed, with or without cause, by the Board. Such removal shall be without prejudice to the contractual rights of the affected officer, if any, with the Company.

(c) Vacancies in any office of the Company may be filled for the unexpired term by the Board.

Section 6.4 Compensation

The Compensation of the Chairman, the Vice Chairman and the Chief Executive Officer shall be fixed by the Compensation Committee. The salaries of all other officers and agents of the Company shall be fixed by the Chief Executive Officer, in consultation with the Compensation Committee.

Section 6.5 Powers and Duties; Delegation

Each of the officers of the Company shall, unless otherwise ordered by the Board, have such powers and duties as customarily pertain to the respective office, and such further powers and duties as from time to time may be conferred by the Board, or by an officer delegated such authority by the Board. The Board may delegate the duties and powers of any officer of the Company to any other officer or to any Director for a specified period of time and for any reason that the Board may deem sufficient.

Section 6.6 Chief Executive Officer

The Chief Executive Officer shall be the chief executive officer of the Company, shall have general supervision over the business and affairs of the Company and shall serve at the pleasure of the Board. The Chief Executive Officer shall have all powers and duties usually incident to the office of the Chief Executive Officer, except as specifically limited by a resolution of the Board. The Chief Executive Officer shall exercise such other powers and perform such other duties as may be assigned to the Chief Executive Officer from time to time by the Board.

Section 6.7 President

The President shall, in the absence of the Chairman, the Vice Chairman and Chief Executive Officer, preside at all meetings of the Board at which the President is present. The President shall have general supervision over the operations of the Company. The President shall

have all powers and duties usually incident to the office of the President, except as specifically limited by a resolution of the Board. The President shall exercise such other powers and perform such other duties as may be assigned to the President from time to time by the Board.

Section 6.8 Vice President

The Board shall appoint one or more Vice Presidents. In the absence or disability of the President or if the office of President becomes vacant, the Vice Presidents in the order determined by the Board, or if no such determination has been made, in the order of their seniority, shall perform the duties and exercise the powers of the President, subject to the right of the Board at any time to extend or restrict such powers and duties or to assign them to others. Any Vice President may have such additional designations in such Vice President's title as the Board may determine. The Vice Presidents shall generally assist the President in such manner as the President shall direct. Each Vice President shall exercise such other powers and perform such other duties as may be assigned to such Vice President from time to time by the Board, the Chief Executive Officer or the President. The term "Vice President" used in this Section shall include the positions of Executive Vice President, Senior Vice President, and Vice President.

Section 6.9 Chief Financial Officer

The Chief Financial Officer shall perform such duties and possess such powers as the Board or the Chief Executive Officer may from time to time prescribe. The Chief Financial Officer shall have the custody of the Company's funds and securities; shall keep full and accurate all books and accounts of the Company as shall be necessary or desirable in accordance with applicable law or generally accepted accounting principles; shall deposit all monies and other valuable effects in the name and to the credit of the Company as may be ordered by the Chief Executive Officer or the Board; shall cause the funds of the Company to be disbursed when such disbursements have been duly authorized, taking proper vouchers for such disbursements; and shall render to the Board, at its regular meeting or when the Board so requires, an account of the Company.

Section 6.10 Chief Regulatory Officer

An officer of the Company with the position of Vice President, Senior Vice President or Executive Vice President shall be designated as the Chief Regulatory Officer of the Company. The Chief Regulatory Officer shall have general supervision of the regulatory operations of the Company, including responsibility for overseeing the Company's surveillance, examination, and enforcement functions and for administering any regulatory services agreements with another self-regulatory organization to which the Company is a party. The Chief Regulatory Officer shall report to the Regulatory Oversight Committee. The Chief Regulatory Officer shall meet with the Regulatory Oversight Committee of the Company in executive session at regularly scheduled meetings of such committee, and at any time upon request of the Chief Regulatory Officer or any member of the Regulatory Oversight Committee. The Chief Regulatory Officer may, but is not required to, also serve as the General Counsel of the Company.

Section 6.11 Secretary

The Secretary shall act as Secretary of all meetings of the Board at which the Secretary is present, shall record all the proceedings of all such meetings in a book to be kept for that purpose, shall have supervision over the giving and service of notices of the Company, and shall have supervision over the care and custody of the books and records of the Company. The Secretary shall be empowered to affix the Company's seal, if any, to documents, the execution of which on behalf of the Company under its seal is duly authorized, and when so affixed, may attest the same. The Secretary shall have all powers and duties usually incident to the office of Secretary, except as specifically limited by a resolution of the Board. The Secretary shall exercise such other powers and perform such other duties as may be assigned to the Secretary from time to time by the Board, the Chief Executive Officer or the President.

Section 6.12 Assistant Secretary

In the absence of the Secretary or in the event of the Secretary's inability or refusal to act, any Assistant Secretary, approved by the Board, shall exercise all powers and perform all duties of the Secretary. An Assistant Secretary shall also exercise such other powers and perform such other duties as may be assigned to such Assistant Secretary from time to time by the Board or the Secretary.

Section 6.13 Treasurer

The Treasurer shall have general supervision over the care and custody of the funds and over the receipts and disbursements of the Company and shall cause the funds of the Company to be deposited in the name of the Company in such banks or other depositories as the Board may designate. The Treasurer shall have supervision over the care and safekeeping of the securities of the Company. The Treasurer shall have all powers and duties usually incident to the office of Treasurer except as specifically limited by a resolution of the Board. The Treasurer shall exercise such other powers and perform such other duties as may be assigned to the Treasurer from time to time by the Board, the Chief Executive Officer or the President.

Section 6.14 Assistant Treasurer

In the absence of the Treasurer or in the event of the Treasurer's inability or refusal to act, any Assistant Treasurer, approved by the Board, shall exercise all powers and perform all duties of the Treasurer. An Assistant Treasurer shall also exercise such other powers and perform such other duties as may be assigned to such Assistant Treasurer from time to time by the Board or the Treasurer.

ARTICLE VII
Indemnification and Insurance

Section 7.1 Right to Indemnification

Each person who was or is made a party or is threatened to be made a party to or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she or a person of whom he or she is the legal representative is or was a director or an officer of the Company or is or was serving at the request of the Company as a director, officer, employee or agent of any other corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to any employee benefit plan (hereinafter an "indemnitee"), whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the Company to the fullest extent authorized by the LLC Act, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Company to provide broader indemnification rights than the LLC Act permitted the Company to provide prior to such amendment), against all expense, liability and loss (including, without limitation, attorneys' fees, judgments, fines, excise taxes or penalties under the Employee Retirement Income Security Act of 1974, as amended, and amounts paid or to be paid in settlement) reasonably incurred by such indemnitee in connection therewith; provided, however, that except as provided in Section 7.3 with respect to proceedings seeking to enforce rights to indemnification, the Company shall indemnify any such indemnitee seeking indemnification in connection with a proceeding (or part thereof) initiated by such indemnitee only if such proceeding (or part thereof) was authorized by the Board of Directors.

Section 7.2 Right to Advancement of Expenses

The right to indemnification conferred in Section 7.1 shall include the right to be paid by the Company the expenses (including attorneys' fees) incurred in defending any such proceeding in advance of its final disposition (hereinafter an "advancement of expenses"); provided, however, that, if the LLC Act requires, an advancement of expenses incurred by an indemnitee in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the Company of an undertaking (hereinafter an "undertaking"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "final adjudication") that such indemnitee is not entitled to be indemnified for such expenses under this Section 7.2 or otherwise.

Section 7.3 Right of Indemnitee to Bring Suit

If a claim under Section 7.1 or Section 7.2 is not paid in full by the Company within thirty (30) days after a written claim has been received by the Company, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be twenty (20) days, the indemnitee may at any time thereafter bring suit against the Company to recover the

unpaid amount of the claim. If successful in whole or in part in any such suit, or in a suit brought by the Company to recover an advancement of expenses pursuant to the terms of an undertaking, the indemnitee shall also be entitled to be paid the expense of prosecuting or defending such suit.

In (i) any suit brought by the indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the indemnitee to enforce a right of an advancement of expenses) it shall be a defense that, and (ii) in any suit brought by the Company to recover an advancement of expenses pursuant to the terms of an undertaking, the Company shall be entitled to recover such expenses upon a final adjudication that, the indemnitee has not met any applicable standard for indemnification set forth in the LLC Act. Neither the failure of the Company (including its Board of Directors, independent legal counsel or the LLC Member) to have made a determination prior to the commencement of such action that indemnification of the indemnitee is proper in the circumstances because the indemnitee has met the applicable standard of conduct set forth in the Act, nor an actual determination by the Company (including its Board of Directors, independent legal counsel or the LLC Member) that the indemnitee has not met such applicable standard of conduct, shall create a presumption that the indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the indemnitee, be a defense to such suit. In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Company to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article VII or otherwise shall be on the Company.

Section 7.4 Non-Exclusivity of Rights

The right to indemnification and the advancement of expenses conferred in this Article VII shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provision of the LLC Agreement, provision of these By-Laws, agreement, vote of the LLC Member or disinterested directors or otherwise.

Section 7.5 Insurance

The Company may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Company or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Company would have the power to indemnify such person against such expense, liability or loss under the law.

Section 7.6 Indemnification of Employees and Agents of the Company

The Company may, to the extent authorized from time to time by the Board of Directors, grant rights to indemnification, and rights to the advancement of expenses, to any employee or agent of the Company to the fullest extent of the provisions of this Article VII with respect to the indemnification and advancement of expenses of directors and officers of the Company.

Section 7.7 Contract Rights

The rights to indemnification and to the advancement of expenses conferred in Section 7.1 and Section 7.2 shall be contract rights and such rights shall continue as to an indemnitee who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the indemnitee's heirs, executors and administrators.

Section 7.8 Company Not Liable

Except as provided in the Exchange Rules, the Company shall not be liable for any loss or damage sustained by any current or former Exchange Member growing out of the use or enjoyment by such Exchange Member of the facilities afforded by the Company (or any predecessor or successor thereof) or its subsidiaries.

ARTICLE VIII
Amendments; Emergency By-Laws

Section 8.1 By the LLC Member or Board

These By-Laws may be altered, amended, or repealed, or new By-Laws may be adopted, (i) by the written consent of the LLC Member, or (ii) at any regular or special meeting of the Board by a resolution adopted by the Board.

Section 8.2 Emergency By-Laws

The Board may adopt emergency By-Laws subject to repeal or change by action of the LLC Member which shall, notwithstanding any different provision of law, the Certificate of Formation, the LLC Agreement or these By-Laws, be operative during any emergency resulting from any nuclear or atomic disaster, an attack on the United States or on a locality in which the Company conducts its business or customarily holds meetings of the Board, any catastrophe, or other emergency condition, as a result of which a quorum of the Board or a committee thereof cannot readily be convened for action. Such emergency By-Laws may make any provision that may be practicable and necessary under the circumstances of the emergency.

Section 8.3 Authority to Take Action Under Extraordinary Market Conditions

The Board, or such person or persons as may be designated by the Board, in the event of extraordinary market conditions, shall have the authority to take any action regarding:

(a) the trading in or operation of the national securities exchange operated by the Company or any other organized securities markets that may be operated by the Company, the operation of any automated system owned or operated by the Company, and the participation in any such system or any or all persons or the trading therein of any or all securities; and

(b) the operation of any or all systems of Exchange Members, if, in the opinion of the Board or the person or persons hereby designated, such action is necessary or

appropriate for the protection of investors or the public interest or for the orderly operation of the marketplace or the system.

Section 8.4 Commission Approval

Before any amendment to, alteration or repeal of any provision of the By-Laws of the Company under this Article VIII shall be effective, those changes shall be submitted to the Board and if the same must be filed with or filed with and approved by the Commission, then the proposed changes to the By-Laws of the Company shall not become effective until filed with or filed with and approved by the Commission, as the case may be.

ARTICLE IX
Exchange Authorities

Section 9.1 Rules

The Board, acting in accordance with the terms of these By-Laws and the Rules, shall be vested with all powers necessary for the government of the Company as an "exchange" within the meaning of the Act. To promote and enforce just and equitable principles of trade and business, to maintain high standards of commercial honor and integrity among Exchange Members, to collaborate with governmental and other agencies in the promotion of fair practices and the elimination of fraud, and in general to carry out the purposes of the Company and of the Act, the Board is hereby authorized to adopt such rules and such amendments thereto as it may, from time to time, deem necessary or appropriate. If any such rules or amendments thereto are approved by the Commission or otherwise become effective as provided in the Act, they shall become operative Exchange Rules as of the date of Commission approval or effectiveness under the Act unless a later operative date is declared by the Company. The Board is hereby authorized, subject to the provisions of these By-Laws and the Act, to administer, enforce, interpret, issue exemptions from, suspend, or cancel any Rules adopted hereunder.

Section 9.2 Disciplinary Proceedings

(a) The Board is authorized to establish procedures relating to disciplinary proceedings involving Exchange Members and their associated persons.

(b) The Board is authorized to impose appropriate sanctions applicable to Exchange Members, including censure, fine, suspension, or expulsion from membership, suspension or bar from being associated with all Exchange Members, limitation of activities, functions, and operations of an Exchange Member, or any other fitting sanction, and to impose appropriate sanctions applicable to persons associated with Exchange Members, including censure, fine, suspension, or barring a person associated with an Exchange Member from being associated with all Exchange Members, limitation of activities, functions, and operations of a person associated with an Exchange Member, or any other fitting sanction, for:

(i) a breach by an Exchange Member or a person associated with an Exchange Member of any covenant with the Company or its LLC Member;

(ii) violation by an Exchange Member or a person associated with an Exchange Member of any of the terms, conditions, covenants, and provisions of the By-Laws, the Rules, or the federal securities laws, including the rules and regulations adopted thereunder;

(iii) failure by an Exchange Member or person associated with an Exchange Member to: (A) submit a dispute for arbitration as may be required by the Rules; (B) appear or produce any document in the Exchange Member's or person's possession or control as directed pursuant to the Rules; (C) comply with an award of arbitrators properly rendered, where a timely motion to vacate or modify such award has not been made pursuant to applicable law or where such a motion has been denied; or (D) comply with a written and executed settlement agreement obtained in connection with an arbitration or mediation submitted for disposition; or

(iv) failure by an Exchange Member or person associated with an Exchange Member to adhere to any ruling, order, direction, or decision of or to pay any sanction, fine, or costs imposed by the Board or any entity to which the Board has delegated its powers.

Section 9.3 Membership Qualifications

(a) The Board shall have authority to adopt rules and regulations applicable to Exchange Members, applicants seeking to become Exchange Members, and persons associated with applicants or Exchange Members, establishing specified and appropriate standards with respect to the training, experience, competence, financial responsibility, operational capability, and such other qualifications as the Board finds necessary or desirable.

(b) The Board may from time to time make such changes in such rules, regulations, and standards as it deems necessary or appropriate.

(c) Uniform standards for regulatory and other access issues, such as admission to membership and conditions to becoming an Exchange market maker, shall be promulgated and applied on a consistent basis, and the Company shall institute safeguards to ensure fair and evenhanded access to all of its services and facilities.

Section 9.4 Fees, Dues, Assessments, and Other Charges

The Board shall have authority to fix and levy the amount of fees, dues, assessments, and other charges to be paid by Exchange Members and issuers and any other persons using any facility or system that the Company operates or controls; provided, however, that such fees, dues, assessments, and other charges shall be equitably allocated among Exchange Members and any other persons using any facility or system that the Company operates or controls. Any Regulatory Funds will not be used for non-regulatory purposes or distributed to the LLC Member, but rather, shall be applied to fund the legal and regulatory operations of the Company (including surveillance and enforcement activities), or, as the case may be, shall be used to pay restitution and disgorgement of funds intended for customers.

ARTICLE X
Miscellaneous Provisions

Section 10.1 Operational Date of Exchange

The Company has been formed in anticipation of its registration by the Commission as a national securities exchange. During the period between formation and the first date on which the Company commences operating a national securities exchange (the "Operational Date"):

(a) references in the Agreement and By-Laws to "the national securities exchange operated by the Company" shall be construed as references to "the national securities exchange to be operated by the Company"; and

(b) the Board of Directors of the Company may appoint members of the committees to be established under the By-Laws, but shall not be required to appoint all such committee members until the date immediately prior to the Operational Date.

Section 10.2 Fiscal Year

The fiscal year of the Company shall be as determined from time to time by the Board.

Section 10.3 Participation in Board and Committee Meetings

All meetings of the Board (and any committees of the Company) pertaining to the self-regulatory function of the Company (including disciplinary matters) shall be closed to all persons other than members of the Board, Observers, officers, staff, counsel or other advisors whose participation is necessary or appropriate to the proper discharge of such regulatory functions and any representatives of the Commission. In no event shall members of the Board of Directors of Miami International Holdings, Inc. who are not also members of the Board, Observers, or any officers, staff, counsel or advisors of Miami International Holdings, Inc. who are not also officers, staff, counsel or advisors of the Company (or any committees of the Company), be allowed to participate in any meetings of the Board (or any committee of the Company) pertaining to the self-regulatory function of the Company (including disciplinary matters).

Section 10.4 Books and Records; Confidentiality of Information and Records Relating to SRO Function

The books and records of the Company shall be maintained at a location within the United States. All books and records of the Company reflecting confidential information pertaining to the self-regulatory function of the Company (including but not limited to disciplinary matters, trading data, trading practices, and audit information) shall be retained in confidence by the Company and its personnel and will not be used by the Company for any non-regulatory purposes and shall not be made available to any person (including, without limitation, any Exchange Member) other than to personnel of the Commission, and those personnel of the Company, members of committees of the Company, members of the Board, Observers, hearing

officers and other agents of the Company to the extent necessary or appropriate to properly discharge the self-regulatory responsibilities of the Company.

Section 10.5 Execution of Instruments, Contracts, etc.

(a) All checks, drafts, bills of exchange, notes, or other obligations or orders for the payment of money shall be signed in the name of the Company by such officer or officers or person or persons as the Board, or a duly authorized committee thereof, may from time to time designate. Except as otherwise provided by law, the Board, any committee given specific authority in the premises by the Board, or any committee given authority to exercise generally the powers of the Board during intervals between meetings of the Board may authorize any officer, employee, or agent, in the name of and on behalf of the Company, to enter into or execute and deliver deeds, bonds, mortgages, contracts, and other obligations or instruments, and such authority may be general or confined to specific instances.

(b) All applications, written instruments, and papers required by any department of the United States government or by any state, county, municipal, or other governmental authority may be executed in the name of the Company by any officer of the Company, or, to the extent designated for such purpose from time to time by the Board, by an employee or agent of the Company. Such designation may contain the power to substitute, in the discretion of the person named, one or more other persons.

Section 10.6 Power to Vote Stock

Unless otherwise instructed by the Board, the Chairman or the Chief Executive Officer of the Company shall have the power and authority on behalf of the Company to attend and to vote at any meeting of the stockholders, partners or equity holders of any corporation, partnership or any other entity in which the Company may hold stock, partnership or other equity interests, as the case may be, and may exercise on behalf of the Company any and all of the rights and powers incident to the ownership of such stock, partnership or other equity interest at such meeting, and shall have the power and authority to execute and deliver proxies, waivers and consents on behalf of the Company in connection with the exercise by the Company of the rights and powers incident to the ownership of such stock, partnership or other equity interest. The Board may from time to time confer like powers upon any other person or persons.

Section 10.7 Severability

If any provision of these By-Laws, or the application of any provision of these By-Laws to any person or circumstances, is held invalid, the remainder of these By-Laws and the application of such provision to other persons or circumstances shall not be affected.

Effective Date: May 20, 2016

C

State of Delaware
Secretary of State
Division of Corporations
Delivered 09:51 AM 02/11/2016
FILED 09:51 AM 02/11/2016
SR 20160742764 - File Number 5880323

CERTIFICATE OF FORMATION

OF

MIAX PEARL, LLC

THIS IS TO CERTIFY that there is hereby formed a limited liability company under and by virtue of the Delaware Limited Liability Company Act (the "Act") (6 Del. C. §18-101, et.seq.).

1. The name of the limited liability company is **MIAX PEARL, LLC** (the "Company").

2. The address of the registered office of the Company in the State of Delaware is 1209 Orange Street in the City of Wilmington, County of New Castle, ZIP Code 19801, and the name of the registered agent at such address for service of process is The Corporation Trust Company.

3. This Certificate shall be effective upon filing.

4. The duration of this limited liability company will be perpetual.

IN WITNESS WHEREOF, the undersigned, an authorized person, has signed this certificate this 11th day of February, 2016.

Barbara J. Comly

BARBARA J. COMLY
7 Roszel Road, 5th Floor
Princeton, NJ 08540

AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
OF
MIAX PEARL, LLC
(a Delaware limited liability company)

Miami International Holdings, Inc., a Delaware corporation, the sole member (the "LLC Member") of **MIAX PEARL, LLC**, a Delaware limited liability company (the "Company"), pursuant to and in accordance with the Delaware Limited Liability Company Act, 6 Del.C. § 18-101, et seq. (the "LLC Act"), hereby declares the following to be the Amended and Restated Limited Liability Company Agreement (the "LLC Agreement") of the Company which amends and restates in its entirety the Limited Liability Company Agreement dated March 7, 2016 of the Company (the "Operating Agreement"). Capitalized terms not otherwise defined herein shall have the meanings set forth on Schedule A to this LLC Agreement.

Section 1. Formation of the Company. The Company has been formed as a limited liability company under the LLC Act by the filing of a Certificate of Formation with the Office of the Secretary of State of the State of Delaware. The LLC Member agrees to be bound by and comply with the provisions thereof and hereof.

Section 2. Name. The name of the Company is "MIAX PEARL, LLC".

Section 3. Principal Place of Business. The location of the principal place of business of the Company shall be 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540, or such other place as determined by the Board of Directors from time to time.

Section 4. Registered Office; Registered Agent. The registered office of the Company required by the LLC Act to be maintained in the State of Delaware shall be 3422 Old Capitol Trail, Suite 700, Wilmington, DE 19808-6192, County of New Castle or such other office as the Board of Directors may designate from time to time. The registered agent for the Company shall be Delaware Business Incorporators, Inc., or such other registered agent as the Board of Directors may designate from time to time.

Section 5. Term. The Company shall continue until the Company is terminated in accordance with the provisions of this LLC Agreement.

Section 6. LLC Member. The mailing address of the LLC Member is set forth on Schedule B attached hereto. The LLC Member was admitted to the Company as an LLC Member of the Company upon its execution of a counterpart signature page to the Operating Agreement at which time it acquired 100% of the limited liability company interests of the Company.

Section 7. Purpose of the Company. The purpose of the Company shall be to conduct the operations of an "exchange" within the meaning of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and to conduct any lawful business or activity

whatsoever, as permitted by applicable law and as determined from time to time by the board of directors of the Company (the "Board of Directors").

Section 8. Powers. The Company, and the Board of Directors and the Officers of the Company on behalf of the Company, (i) shall have and exercise all powers necessary, convenient or incidental to accomplish its purposes as set forth in Section 7 and (ii) shall have and exercise all of the powers and rights conferred upon limited liability companies formed pursuant to the LLC Act.

Section 9. Management.

(a) Board of Directors. The business and affairs of the Company shall be managed by or under the direction of a Board of Directors. Each Director is hereby designated as a "manager" within the meaning of the LLC Act. All Directors shall be elected by the LLC Member in the manner described in the By-Laws (as defined below). Each Director shall execute and deliver an instrument accepting such appointment and agreeing to be bound by all the terms and conditions of this LLC Agreement and the By-Laws. A Director need not be an LLC Member or an Exchange Member. The Directors as of the date of this LLC Agreement are set forth on Schedule C attached hereto.

(b) Powers. The Board of Directors shall have the power to do any and all acts necessary, convenient or incidental to or for the furtherance of the purposes described herein, including all powers, statutory or otherwise. The Board of Directors has the authority to bind the Company.

(c) By-Laws. The Company, the LLC Member and the Board of Directors hereby adopt the By-Laws of the Company in the form attached hereto as Exhibit A, as the same may be amended from time to time in accordance with the terms therein and in this LLC Agreement (the "By-Laws"). Each member of the Board of Directors, each Officer and the LLC Member shall be subject to the express provisions of this LLC Agreement and of the By-Laws. In case of any conflict between the provisions of this LLC Agreement and any provisions of the By-Laws, the provisions of this LLC Agreement shall control.

(d) Directors as Agents. To the extent of their powers set forth in this LLC Agreement, the Directors are agents of the Company for the purpose of the Company's business, and the actions of the Directors taken in accordance with such powers set forth in this LLC Agreement shall bind the Company. Notwithstanding the last sentence of Section 18-402 of the LLC Act, except as provided in this LLC Agreement, the By-Laws or in a resolution of the Directors, a Director may not bind the Company.

Section 10. Officers.

(a) Officers of the Company. Except as provided herein, the Board may, from time to time as it deems advisable, select natural persons who are employees or agents of the Company and designate them as officers of the Company (the "Officers") and assign titles (including, without limitation, Chief Executive Officer, Vice President, Chief Financial Officer,

Chief Regulatory Officer, Secretary and Treasurer) to any such person. The Board may appoint such other Officers and agents as it shall deem necessary or advisable who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board. The salaries of all Officers and agents of the Company shall be fixed by or in the manner prescribed by the By-Laws. The Officers of the Company shall hold office until their successors are chosen and qualified. Any Officer may be removed at any time, with or without cause, by the Board. Any vacancy occurring in any office of the Company shall be filled by the Board.

(b) Officers as Agents. The Officers, to the extent of their powers set forth in this LLC Agreement, the By-Laws or otherwise vested in them by action of the Board not inconsistent with this LLC Agreement, are agents of the Company for the purpose of the Company's business, and the actions of the Officers taken in accordance with such powers shall bind the Company.

(c) Duties of Board and Officers. Except to the extent otherwise modified herein, each Director and Officer shall have a fiduciary duty of loyalty and care similar to that of directors and officers of business corporations organized under the General Corporation Law of the State of Delaware.

Section 11. Advisory Board. The LLC Member may appoint any person or persons to act in an advisory capacity to the Company. Such a group shall be known as the Advisory Board.

Section 12. Limited Liability. Except as otherwise expressly provided by the LLC Act, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise (including, without limitation, those arising as member, owner or shareholder of another company, partnership or entity), shall be the debts, obligations and liabilities solely of the Company, and neither the LLC Member nor any Director or Officer shall be obligated personally for any such debt, obligation or liability of the Company solely by reason of being an LLC Member or Director or Officer of the Company.

Section 13. Capital Contributions. The LLC Member has contributed to the Company the amounts set forth in the books and records of the Company.

Section 14. Additional Contributions. The LLC Member is not required to make any additional capital contribution to the Company. However, the LLC Member may make additional capital contributions to the Company at any time upon the consent of such LLC Member. To the extent that the LLC Member makes an additional capital contribution to the Company, the LLC Member shall revise the books and records of the Company. The provisions of this LLC Agreement, including this Section 14, are intended to benefit the LLC Member and, to the fullest extent permitted by law, shall not be construed as conferring any benefit upon any creditor of the Company (and no such creditor of the Company shall be a third-party beneficiary of this LLC Agreement), and the LLC Member shall not have any duty or obligation to any creditor of the Company to make any contribution to the Company or to issue any call for capital pursuant to this LLC Agreement.

Section 15. **Allocation of Profits and Losses.** The Company's profits and losses shall be allocated to the LLC Member.

Section 16. **Distributions.** Distributions shall be made to the LLC Member at the times and in the aggregate amounts determined by the Board. Notwithstanding any provision to the contrary contained in this LLC Agreement, (i) the Company shall not be required to make a distribution to the LLC Member on account of its interest in the Company if such distribution would violate the LLC Act or any other applicable law, and (ii) the Company shall not make a distribution to the LLC Member using Regulatory Funds.

Section 17. **Books and Records.**

(a) The Board shall keep or cause to be kept complete and accurate books of account and records with respect to the Company's business. The books and records of the Company shall at all times be maintained by the Board at a location within the United States. The LLC Member and its duly authorized representatives shall have the right to examine the Company books, records and documents during normal business hours. The Company, and the Board on behalf of the Company, shall not have the right to keep confidential from the LLC Member any information that the Board would otherwise be permitted to keep confidential from the LLC Member pursuant to Section 18-305(c) of the LLC Act. The Company's books of account shall be kept using the method of accounting determined by the LLC Member. The Company's independent auditor shall be an independent public accounting firm selected by the Board.

(b) All books and records of the Company reflecting confidential information pertaining to the self-regulatory function of the Company (including but not limited to disciplinary matters, trading data, trading practices, and audit information) shall be retained in confidence by the Company and its personnel and will not be used by the Company for any non-regulatory purposes and shall not be made available to any person (including, without limitation, any Exchange Member) other than to personnel of the Commission, and those personnel of the Company, members of committees of the Company, members of the Board, hearing officers and other agents of the Company to the extent necessary or appropriate to properly discharge the self-regulatory responsibilities of the Company.

Section 18. **Reports.** The Board shall, after the end of each fiscal year, use reasonable efforts to cause the Company's independent accountants to prepare and transmit to the LLC Member as promptly as possible any such tax information as may be reasonably necessary to enable the LLC Member to prepare its federal, state and local income tax returns relating to such fiscal year.

Section 19. **Other Business.** Unless otherwise restricted by law, the LLC Member, and any Officer, Director, employee or agent of the Company and any Affiliate of the LLC Member may engage in or possess an interest in other business ventures (unconnected with the Company) of every kind and description, independently or with others. The Company shall not

have any rights in or to such independent ventures or the income or profits therefrom by virtue of this LLC Agreement.

Section 20. Exculpation and Indemnification.

(a) Neither the LLC Member nor any Officer, Director, employee or agent of the Company nor any employee, representative, agent or affiliate of the LLC Member (collectively, the "Covered Persons") shall be liable to the Company or any other Person who is bound by this LLC Agreement for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Covered Person by this LLC Agreement, except that a Covered Person shall be liable for any such loss, damage or claim incurred by reason of such Covered Person's willful misconduct.

(b) To the fullest extent permitted by applicable law, a Covered Person shall be entitled to indemnification from the Company for any loss, damage or claim incurred by such Covered Person by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Covered Person by this LLC Agreement, except that no Covered Person shall be entitled to be indemnified in respect of any loss, damage or claim incurred by such Covered Person by reason of such Covered Person's willful misconduct with respect to such acts or omissions; provided, however, that any indemnity under this Section 20 by the Company shall be provided out of and to the extent of Company assets only, and the LLC Member shall not have personal liability on account thereof.

(c) To the fullest extent permitted by applicable law, expenses (including reasonable legal fees) incurred by a Covered Person defending any claim, demand, action, suit or proceeding shall, from time to time, be advanced by the Company prior to the final disposition of such claim, demand, action, suit or proceeding upon receipt by the Company of an undertaking by or on behalf of the Covered Person to repay such amount if it shall be determined that the Covered Person is not entitled to be indemnified as authorized in this Section 20.

(d) A Covered Person shall be fully protected in relying in good faith upon the records of the Company and upon such information, opinions, reports or statements presented to the Company by any Person as to matters the Covered Person reasonably believes are within such other Person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Company, including information, opinions, reports or statements as to the value and amount of the assets, liabilities or any other facts pertinent to the existence and amount of assets from which distributions to the LLC Member might properly be paid.

(e) To the extent that, at law or in equity, a Covered Person has duties (including fiduciary duties) and liabilities relating thereto to the Company or to any other Covered Person, a Covered Person acting under this LLC Agreement shall not be liable to the Company or to any other Covered Person who is bound by this LLC Agreement for its good faith

reliance on the provisions of this LLC Agreement or any approval or authorization granted by the Company or any other Covered Person.

(f) The foregoing provisions of this Section 20 shall survive any termination of this LLC Agreement and are in addition to any indemnification of Covered Persons provided by any agreement between the Company and a Covered Person, the By-Laws, by statute, or otherwise.

Section 21. Assignments. The LLC Member may assign, in whole or in part, its limited liability company interest in the Company (the "LLC Interest"); provided, however, such assignment will be subject to prior approval by the Securities and Exchange Commission (the "Commission") pursuant to the rule filing procedure under Section 19 of the Exchange Act. The assignment of the LLC Interest shall entitle the assignee to exercise the rights of the LLC Member of the Company under this LLC Agreement and to enjoy all of the benefits of the LLC Interest.

Section 22. Dissolution.

(a) The Company shall be dissolved and its affairs shall be wound up upon the first to occur of the following: (i) the consent of the LLC Member and a majority of the whole Board, (ii) the termination of the legal existence of the LLC Member or the occurrence of any other event that terminates the continued membership of the LLC Member in the Company unless the Company is continued without dissolution in a manner permitted by this LLC Agreement or the LLC Act or (iii) the entry of a decree of judicial dissolution under Section 18-802 of the LLC Act.

(b) Notwithstanding any other provision of this LLC Agreement, the Bankruptcy of the LLC Member shall not cause the LLC Member to cease to be an LLC Member of the Company and upon the occurrence of such an event, the Company shall continue without dissolution.

(c) In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority, set forth in Section 18-804 of the LLC Act.

(d) The Company shall terminate when (i) all of the assets of the Company, after payment of or due provision for all debts, liabilities and obligations of the Company, shall have been distributed to the LLC Member in the manner provided for in this LLC Agreement and (ii) the Certificate of Formation shall have been canceled in the manner required by the LLC Act.

Section 23. Benefits of LLC Agreement - No Third-Party Rights. None of the provisions of this LLC Agreement shall be for the benefit of or enforceable by any creditor of the Company or by any creditor of the LLC Member. Nothing in this LLC Agreement shall be deemed to create any right in any Person (other than Covered Persons and to the extent provided

in Article II of the By-Laws, Exchange Members) not a party hereto, and this LLC Agreement shall not be construed in any respect to be a contract in whole or in part for the benefit of any third Person (other than the Covered Persons and to the extent provided in Article II of the By-Laws, Exchange Members).

Section 24. Severability of Provisions. Each provision of this LLC Agreement shall be considered severable and if for any reason any provision or provisions herein are determined to be invalid, unenforceable or illegal under any existing or future law, such invalidity, unenforceability or illegality shall not impair the operation of or affect those portions of this LLC Agreement which are valid, enforceable and legal.

Section 25. Entire LLC Agreement. This LLC Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof.

Section 26. Binding Agreement. Notwithstanding any other provision of this LLC Agreement, the LLC Member agrees that this LLC Agreement constitutes a legal, valid and binding agreement of the LLC Member and is enforceable against the LLC Member, in accordance with its terms.

Section 27. Governing Law. This LLC Agreement shall be governed by and construed under the laws of the State of Delaware (without regard to conflict of laws principles), all rights and remedies being governed by said laws.

Section 28. Amendments.

(a) This LLC Agreement may be modified, altered, supplemented or amended by a resolution adopted by the Board and a written agreement executed and delivered by the LLC Member.

(b) Before any amendment to, or repeal of, any provision of this LLC Agreement shall be effective, those changes shall be submitted to the Board of Directors of the Company and if such amendment or repeal must be filed with or filed with and approved by the Commission, then the proposed changes to this LLC Agreement shall not become effective until filed with or filed with and approved by the Commission, as the case may be.

Section 29. Notices. Any notices required to be delivered hereunder shall be in writing and personally delivered, mailed or sent by telecopy, electronic mail or other similar form of rapid transmission, and shall be deemed to have been duly given upon receipt (i) in the case of the Company, to the Company at its address in Section 3, (ii) in the case of the LLC Member, to the LLC Member at its address as listed on Schedule B attached hereto and (iii) in the case of either of the foregoing, at such other address as may be designated by written notice to the other party.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound hereby, has duly executed this Amended and Restated Limited Liability Company Agreement as of the 5th day of December, 2016.

MEMBER:

MIAMI INTERNATIONAL HOLDINGS, INC.

By: _____
Thomas P. Gallagher
Chairman

SCHEDULE A

Definitions

A. Definitions

When used in this LLC Agreement, the following terms not otherwise defined herein have the following meanings:

An "affiliate" of, or person "affiliated" with a specific person, is a person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the person specified.

"Bankruptcy" means, with respect to any Person, if (A) such Person (i) makes an assignment for the benefit of creditors, (ii) files a voluntary petition in bankruptcy, (iii) is adjudged a bankrupt or insolvent, or has entered against it an order for relief, in any bankruptcy or insolvency proceedings, (iv) files a petition or answer seeking for itself any reorganization, arrangement, composition, readjustment, liquidation or similar relief under any statute, law or regulation, (v) files an answer or other pleading admitting or failing to contest the material allegations of a petition filed against it in any proceeding of this nature, or (vi) seeks, consents to or acquiesces in the appointment of a trustee, receiver or liquidator of the Person or of all or any substantial part of its properties; or (B) (i) 120 days after the commencement of any proceeding against the Person seeking reorganization, arrangement, composition, readjustment, liquidation or similar relief under any statute, law or regulation, the proceeding has not been dismissed, or (ii) within 90 days after the appointment without such Person's consent or acquiescence of a trustee, receiver or liquidator of such Person or of all or any substantial part of its properties, the appointment is not vacated or stayed, or within 90 days after the expiration of any such stay, the appointment is not vacated. The foregoing definition of "Bankruptcy" is intended to replace and shall supersede and replace the definition of "Bankruptcy" set forth in Sections 18-101(1) and 18-304 of the LLC Act.

"Board" or "Board of Directors" means the Board of Directors of the Company.

"By-Laws" has the meaning set forth in Section 9(c).

"Certificate of Formation" means the Certificate of Formation of the Company filed with the Secretary of State of the State of Delaware on February 11, 2016, as amended or amended and restated from time to time.

"Commission" means the Securities and Exchange Commission.

"Company" means MIAX PEARL, LLC, a Delaware limited liability company.

"Covered Persons" has the meaning set forth in Section 20.

"Directors" means the Persons elected or appointed to the Board of Directors from time to time in accordance with this LLC Agreement and the By-Laws, in their capacity as managers of the Company.

"Exchange Act" means the Securities Exchange Act of 1934, as amended.

"Exchange Member" means any registered broker or dealer that has been admitted to membership in the national securities exchange operated by the Company. An Exchange Member is not a member of the Company by reason of being an Exchange Member.

"LLC Act" has the meaning set forth in the preamble to this LLC Agreement.

"LLC Agreement" means this Limited Liability Company Agreement of the Company, together with the schedules attached hereto, as amended, restated, supplemented or otherwise modified from time to time.

"LLC Interest" has the meaning set forth in Section 21.

"LLC Member" means Miami International Holdings, Inc., as the sole member of the Company.

"Officer" means an officer of the Company described in Section 10.

"Operating Agreement" has the meaning set forth in the preamble to this LLC Agreement.

"Person" means any individual, corporation, partnership, joint venture, limited liability company, limited liability partnership, association, joint stock company, trust, unincorporated organization or other organization, whether or not a legal entity, and any governmental authority.

"Regulatory Funds" means fees, fines, or penalties derived from the regulatory operations of the Company. "Regulatory Funds" shall not be construed to include revenues derived from listing fees, market data revenues, transaction revenues, or any other aspect of the commercial operations of the Company, even if a portion of such revenues are used to pay costs associated with the regulatory operations of the Company.

B. Rules of Construction

Definitions in this LLC Agreement apply equally to both the singular and plural forms of the defined terms. The words "include" and "including" shall be deemed to be followed by the phrase "without limitation." The terms "herein," "hereof" and "hereunder" and other words of similar import refer to this LLC Agreement as a whole and not to any particular Section, paragraph or subdivision. The Section titles appear as a matter of convenience only and shall not affect the interpretation of this LLC Agreement. All Section, paragraph, clause, Exhibit or Schedule references not attributed to a particular document shall be references to such parts of this LLC Agreement.

SCHEDULE B

LLC Member

Name	Mailing Address	Limited Liability Company Interest
Miami International Holdings, Inc.	7 Roszel Road, 5th Floor Princeton, NJ 08540	100%

SCHEDULE C

Directors as of December 5, 2016

	Name	Classification
1.	Thomas P. Gallagher	Industry
2.	Robert D. Prunetti	Non-Industry/Independent
3.	John Beckelman	Industry
4.	Lindsay L. Burbage	Non-Industry/Independent
5.	John E. McCormac	Non-Industry/Independent
6.	Leslie Florio	Non-Industry/Independent
7.	Lawrence E. Jaffe	Non-Industry/Independent
8.	Cynthia Schwarzkopf	Non-Industry/Independent

EXHIBIT A

BY-LAWS OF MIAX PEARL, LLC

[Separate document]

BY-LAWS
OF
MIAX PEARL, LLC
(a Delaware limited liability company)

These By-Laws have been established as the By-Laws of **MIAX PEARL, LLC**, a Delaware limited liability company (the "Company"), pursuant to the Amended and Restated Limited Liability Company Agreement of the Company, dated as of December 5, 2016, (as amended from time to time, the "LLC Agreement"), and, together with the LLC Agreement, constitute the limited liability company agreement of the Company within the meaning of the LLC Act (as defined in the LLC Agreement). In the event of any inconsistency between the LLC Agreement and these By-Laws, the provision of the LLC Agreement shall control.

ARTICLE I
Definitions

When used in these By-Laws, unless the context otherwise requires, the terms set forth below shall have the following meanings:

(a) "Act" means the Securities Exchange Act of 1934, as amended.

(b) An "affiliate" of, or person "affiliated" with a specific person, is a person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the person specified.

(c) "Board" or "Board of Directors" means the Board of Directors of the Company.

(d) "broker" shall have the same meaning as in Section 3(a)(4) of the Act.

(e) "Certificate of Formation" means the Certificate of Formation of the Company filed with the office of the Secretary of State of the State of Delaware on February 11, 2016, as amended or amended and restated from time to time.

(f) "Commission" means the Securities and Exchange Commission.

(g) "Company" means MIAX PEARL, LLC, a Delaware limited liability company.

(h) "day" means calendar day.

(i) "dealer" shall have the same meaning as in Section 3(a)(5) of the Act.

(j) "Director" means the persons elected or appointed to the Board of Directors from time to time in accordance with the LLC Agreement and these By-Laws in their capacity as managers of the Company.

(k) "Effective Date" means the date of effectiveness of these By-Laws.

(l) "Exchange" means the national securities exchange operated by the Company.

(m) "Exchange Contract" means a contract that is then listed for trading by the Exchange or that is contemplated by the then current business plan of the Company to be listed for trading by the Exchange within ninety (90) days following such date.

(n) "Exchange Member" means any registered broker or dealer that has been admitted to membership in the national securities exchange operated by the Company. An Exchange Member is not a member of the Company by reason of being an Exchange Member. An Exchange Member will have the status of a "member" of the Exchange as that term is defined in Section 3(a)(3) of the Act.

(o) "Executive Representative" means the person identified to the Company by an Exchange Member as the individual authorized to represent, vote, and act on behalf of the Exchange Member. An Exchange Member may change its Executive Representative or appoint a substitute for its Executive Representative upon giving notice thereof to the Secretary of the Company via electronic process or such other process as the Company may prescribe. An Executive Representative of an Exchange Member or a substitute shall be a member of senior management of the Exchange Member.

(p) "Independent Director" means a Director who has no material relationship with the Company or any affiliate of the Company, or any Exchange Member or any affiliate of any such Exchange Member; *provided*, however, that an individual who otherwise qualifies as an Independent Director shall not be disqualified from serving in such capacity solely because such Director is a Director of the Company or its LLC Member.

(q) "Independent member" means a member of any committee who has no material relationship with the Company or any affiliate of the Company, or any Exchange Member or any affiliate of any such Exchange Member, other than as a committee member. The term Independent member may but is not required to refer to an Independent Director who serves on a committee.

(r) "Industry Director" means a Director who (i) is or has served in the prior three years as an officer, director, or employee of a broker or dealer, excluding an outside director or a director not engaged in the day-to-day management of a broker or dealer; (ii) is an officer, director (excluding an outside director), or employee of an entity that owns more than 10% of the equity of a broker or dealer, and the broker or dealer accounts for more than 5% of the gross revenues received by the consolidated entity; (iii) owns more than 5% of the equity securities of any broker or dealer, whose investments in brokers or dealers exceed 10% of his or her net worth, or whose ownership interest otherwise permits him or her to be engaged in the day-to-day management of a broker or dealer; (iv) provides professional services to brokers or dealers, and such services constitute 20% or more of the professional revenues received by the Director or 20% or more of the gross revenues received by the Director's firm or partnership; (v) provides professional services to a director, officer, or employee of a broker, dealer, or corporation that owns 50% or more of the voting stock of a broker or dealer, and such services relate to the director's, officer's, or employee's professional capacity and constitute 20% or more of the professional revenues received by the Director or member or 20% or more of the gross revenues received by the Director's or member's firm or partnership; or (vi) has a consulting or employment relationship with or provides professional services to the Company or any affiliate thereof or has had any such relationship or provided any such services at any time within the prior three years.

(s) "Industry member" means a member of any committee or hearing panel who (i) is or has served in the prior three years as an officer, director, or employee of a broker or dealer, excluding an outside director or a director not engaged in the day-to-day management of a broker or dealer; (ii) is an officer, director (excluding an outside director), or employee of an entity that owns more than 10% of the equity of a broker or dealer, and the broker or dealer accounts for more than 5% of the gross revenues received by the consolidated entity; (iii) owns more than 5% of the equity securities of any broker or dealer, whose investments in brokers or dealers exceed 10% of his or her net worth, or whose ownership interest otherwise permits him or her to be engaged in the day-to-day management of a broker or dealer; (iv) provides professional services to brokers or dealers, and such services constitute 20% or more of the professional revenues received by the Director or 20% or more of the gross revenues received by the Director's firm or partnership; (v) provides professional services to a director, officer, or employee of a broker, dealer, or corporation that owns 50% or more of the voting stock of a broker or dealer, and such services relate to the director's, officer's, or employee's professional capacity and constitute 20% or more of the professional revenues received by the Director or member or 20% or more of the gross revenues received by the Director's or member's firm or partnership; or (vi) has a consulting or employment relationship with or provides professional services to the Company or any affiliate thereof or has had any such relationship or provided any such services at any time within the prior three years.

(t) "List of Candidates" means the list of nominees for Member Representative Director positions as nominated by the Member Nominating Committee and amended by petitions filed by Exchange Members. The List of Candidates is submitted to Exchange Members for the final selection of nominees to be elected by the LLC Member to serve as Member Representative Directors.

(u) "LLC Act" means the Delaware Limited Liability Company Act, 6 §18-101, et seq.

(v) "LLC Member" means any person who maintains a direct ownership interest in the Company. The sole LLC Member of the Company shall be Miami International Holdings, Inc.

(w) "Member Nominating Committee" means the Member Nominating Committee elected pursuant to these By-Laws.

(x) "Member Representative Director" means a Director who has been appointed as such to the initial Board of Directors pursuant to Article II, Section 2.5 of these By-Laws, or elected by the LLC Member after having been nominated by the Member Nominating Committee or by an Exchange Member pursuant to these By-Laws and confirmed as the nominee of Exchange Members after majority vote of Exchange Members, if applicable. A Member Representative Director may, but is not required to be an officer, director, employee, or agent of an Exchange Member.

(y) "Member Representative member" means a member of any committee or hearing panel appointed by the Board who has been elected or appointed after having been nominated by the Member Nominating Committee pursuant to these By-Laws and who is an officer, director, employee, or agent of an Exchange Member.

(z) "Nominating Committee" means the Nominating Committee elected pursuant to these By-Laws.

(aa) "Non-Industry Director" means a Director who is (i) an Independent Director; or (ii) any other individual who would not be an Industry Director.

(bb) "Non-Industry member" means a member of any committee who is (i) an Independent member; or (ii) any other individual who would not be an Industry member.

(cc) "person" shall mean a natural person, partnership, corporation, limited liability company, entity, government, or political subdivision, agency or instrumentality of a government.

(dd) "person associated with an Exchange Member" or "associated person of an Exchange Member" means any partner, officer, or director of an Exchange Member (or person occupying a similar status or performing similar functions), any person directly or indirectly controlling, controlled by, or under common control with such Exchange Member, or any employee of such Exchange Member.

(ee) "Record Date" means a date at least thirty-five (35) days before the date announced as the date for the annual meeting of the LLC Member and set as the last date on which Exchange Members may petition to add to the List of Candidates and used to determine whether Exchange Members are entitled to vote on the final List of Candidates.

(ff) "registered broker or dealer" means any registered broker or dealer, as defined in Section 3(a)(48) of the Act, that is registered with the Commission under the Act.

(gg) "Regulatory Funds" means fees, fines, or penalties derived from the regulatory operations of the Company. "Regulatory Funds" shall not be construed to include revenues derived from listing fees, market data revenues, transaction revenues, or any other aspect of the commercial operations of the Company, even if a portion of such revenues are used to pay costs associated with the regulatory operations of the Company.

(hh) "Rules" or "Exchange Rules" shall have the same meaning as set forth in Section 3(a)(27) of the Act.

(ii) "statutory disqualification" shall have the same meaning as in Section 3(a)(39) of the Act.

ARTICLE II
Board of Directors

Section 2.1 Powers

(a) The business and affairs of the Company shall be managed by its Board, except to the extent that the authority, powers and duties of such management shall be delegated to a committee or committees of the Board pursuant to these By-Laws or the Rules. The Board of Directors shall have the power to do any and all acts necessary, convenient or incidental to or for the furtherance of the purposes described herein, including all powers, statutory or otherwise. To the fullest extent permitted by applicable law and these By-Laws, the Board may delegate any of its powers to a committee appointed pursuant to Article IV or to any officer, employee or agent of the Company.

(b) The Board shall have the power to adopt, amend or repeal the Rules in accordance with Article IX, Section 9.1.

(c) The Board may adopt such rules, regulations, and requirements for the conduct of the business and management of the Company, not inconsistent with law, the Certificate of Formation, the LLC Agreement or these By-Laws, as the Board may deem proper. A Director shall, in the performance of such Director's duties, be fully protected, to the fullest extent permitted by law, in relying in good faith upon the books of account or reports made to the Company by any of its officers, by an independent certified public accountant, by an appraiser selected with reasonable care by the Board or any committee of the Board or by any agent of the Company, or in relying in good faith upon other records of the Company.

(d) In connection with managing the business and affairs of the Company, the Board shall consider applicable requirements for registration as a national securities exchange under Section 6(b) of the Act, including, without limitation, the requirements that (i) the Rules shall be designed to protect investors and the public interest and (ii) the Company shall be so organized and have the capacity to carry out the purposes of the Act and to enforce compliance by its "members," as that term is defined in Section 3 of the Act (such statutory members being referred to in these By-Laws as "Exchange Members") and persons associated with Exchange Members, with the provisions of the Act, the rules and regulations under the Act, and the Rules of the Exchange. In furtherance of the foregoing, the Board shall, among other things, approve the Exchange's budget which shall be adequate for the operation of the Exchange and for the Exchange to carry out its responsibilities under the Act. In connection therewith, the Board shall approve the Exchange's regulatory budget which shall be adequate for the regulation of the Exchange.

(e) In light of the unique nature of the Company and its operations and in light of the Company's status as a self-regulatory organization, the Board shall, to the fullest extent permitted by applicable law, take into account all factors that the Board deems relevant, including, without limitation, to the extent deemed relevant: (i) the potential impact thereof on the integrity, continuity and stability of the national securities exchange operated by the Company and the other operations of the Company, on the ability to prevent fraudulent and manipulative acts and practices and on investors and the public, and (ii) whether such would promote just and equitable principles of trade, foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to and facilitating transactions in securities or assist in the removal of impediments to or perfection of the mechanisms for a free and open market and a national market system.

Section 2.2 Composition of the Board

(a) The number of Directors shall be not less than ten (10) including the Chief Executive Officer of the Company. The number of Directors may be fixed from time to time by the LLC Member at any time in its sole and absolute discretion, upon notice to all Directors subject to the minimum number provided for in this Section 2.2(a). No decrease in the number of Directors shall have the effect of shortening the term of any incumbent Director.

(b) At all times the Board of Directors shall consist of one (1) Director who is the Chief Executive Officer of the Company and sufficient numbers of Non-Industry (including Independent), Industry and Member Representative Directors to meet the following composition requirements:

(i) The number of Non-Industry Directors, including at least one Independent Director, shall equal or exceed the sum of the number of Industry Directors and Member Representative Directors elected pursuant to Article II, Section 2.4 or Section 2.5; and

(ii) The number of Member Representative Directors shall be at least twenty (20) percent of the Board.

(c) The Secretary shall collect from each nominee for Director such information as is reasonably necessary to serve as the basis for a determination of the nominee's classification as a Member Representative, Non-Industry or Independent Director, if applicable, and the Secretary shall certify to the Nominating Committee or Member Nominating Committee each nominee's classification, if applicable. Directors shall update the information submitted under this subsection at least annually and upon request of the Secretary, and shall report immediately to the Secretary any change in such information.

(d) A Director may not be subject to a statutory disqualification.

(e) The current Board of Directors consists of the Directors elected by the LLC Member and set forth on Schedule C to the LLC Agreement (the "Current Directors"). In addition to the Current Directors, interim Member Representative Directors shall be elected to the Board of Directors pursuant to the provisions set forth in Article II, Section 2.5 below (the "Interim Member Representative Directors"). The Current Directors and the Interim Member Representative Directors (together, the "Interim Directors") shall not be divided into classes as set forth in Section 2.3(b) and shall serve only until the first annual meeting of the LLC Member following the approval of the Company as a national securities exchange by the Commission, which meeting shall be held within ninety (90) days after the Exchange's application for registration as a national securities exchange is granted.

Section 2.3 Terms of Office

(a) The Board term of the Chief Executive Officer shall expire when such individual ceases to be Chief Executive Officer of the Company.

(b) Each of the Non-Industry and Industry Directors (including Member Representative Directors) shall be divided into three (3) classes, designated Class I, Class II and Class III, which shall be as nearly equal in number and classification as the total number of such Directors then serving on the Board permits. Directors other than the Chief Executive Officer shall serve staggered three-year terms, with the term of office of one class expiring each year. A Director may serve for any number of terms, consecutive or otherwise. In order to commence such staggered three-year terms, Directors in Class I shall hold office until the second annual election of the Board of Directors, Directors in Class II shall initially hold office until the third annual election of the Board of Directors, and Directors in Class III shall initially hold office until the fourth annual election of the Board of Directors. Commencing with the second annual election of the Board of Directors, the term of office for each class of Directors elected at such time shall be three years from the date of their election. Notwithstanding the foregoing, in the case of any new Director as contemplated by Article II, Section 2.2(a), such Director shall be added to a class, as determined by the Board at the time of such Director's initial election or appointment, and shall have an initial term expiring at the same time as the term of the class to which such Director has been added.

Section 2.4 Nomination and Election

(a) The Nominating Committee each year shall nominate Directors for each Director position standing for election at the annual meeting of the LLC Member that year. For positions requiring persons who qualify as Member Representative Directors, the Nominating Committee shall nominate only those persons whose names have been approved and submitted by the Member Nominating Committee, and approved by, if applicable, Exchange Members pursuant to the procedures set forth below in this Section 2.4.

(b) The Member Nominating Committee shall consult with the Nominating Committee, the Chairman and Chief Executive Officer, and shall solicit comments from Exchange Members for the purpose of approving and submitting names of candidates for election to the position of Member Representative Director. A Member Representative Director may, but is not required to be an officer, director, employee, or agent of an Exchange Member.

(c) Not later than sixty (60) days prior to the date announced as the date for the annual meeting of the LLC Member, the Member Nominating Committee shall report to the Nominating Committee and the Secretary the initial nominees for Member Representative Director positions on the Board that have been approved and submitted by the Member Nominating Committee. The Secretary shall promptly notify Exchange Members of those initial nominees. Exchange Members may identify other candidates ("Petition Candidates" for purposes of this Section 2.4) for the Member Representative Director positions by delivering to the Secretary, at least thirty-five (35) days before the date announced as the date for the annual meeting of the LLC Member (the "Record Date" for purposes of this Section 2.4), a written petition, which shall designate the candidate by name and office and shall be signed by Executive Representatives of ten percent (10%) or more of the Exchange Members. An Exchange Member may endorse as many candidates as there are Member Representative Director positions to be filled. No Exchange Member, together with its affiliates, may account for more than fifty percent (50%) of the signatures endorsing a particular candidate, and any signatures of such Exchange Member, together with its affiliates, in excess of the fifty percent (50%) limitation shall be disregarded.

(d) Each petition for a Petition Candidate must include a completed questionnaire used to gather information concerning Member Representative Director candidates and must be filed with the Company (the Company shall provide the form of questionnaire upon the request of any Exchange Member).

(e) If no valid petitions from Exchange Members are received by the Record Date, the initial nominees approved and submitted by the Member Nominating Committee shall be nominated as Member Representative Directors by the Nominating Committee. If one or more valid petitions from Exchange Members are received by the Record Date, the Secretary shall include such additional nominees, along with the initial nominees nominated by the Member Nominating Committee, on a list of nominees (the "List of Candidates"). Upon completion, the List of Candidates shall be sent by the Secretary to all Exchange Members that were Exchange Members on the Record Date, by any means, including electronic transmission, to confirm the nominees for the Member Representative Director positions. The List of Candidates shall be accompanied by a notice regarding the time and date of an election to be held at least twenty (20) days prior to the annual LLC Member meeting to confirm the Exchange Members' selections of nominees for Member Representative Directors.

(f) With respect to the election held to determine the final nomination of Member Representative Directors, each Exchange Member shall have the right to cast one (1) vote for each available Member Representative Director nomination; provided, however, that any such vote must be cast for a person on the List of Candidates and that no Exchange Member, together with its affiliates, may account for more than twenty percent (20%) of the votes cast for a candidate, and any votes cast by such Exchange Member, together with its affiliates, in excess of such twenty percent (20%) limitation shall be disregarded. The votes shall be cast by written ballot, electronic transmission or any other means as set forth in a notice to the Exchange Members sent by the Company prior to such election. Only votes received prior to 5:00 p.m. Eastern Time on the date of the election shall count for the nomination of a Member Representative Director. The persons on the List of Candidates who receive the most votes shall be selected as the nominees for the Member Representative Director positions to be elected by the LLC Member. Tie votes by the Exchange Members shall be decided by the Member Nominating Committee.

Section 2.5 Interim Directors

(a) The Interim Directors of the Board of Directors shall be appointed by the LLC Member and shall serve until the first annual meeting of the LLC Member following the approval of the Company as a national securities exchange by the Commission, which meeting shall be held within ninety (90) days after the Exchange's application for registration as a national securities exchange is granted. The Interim Member Representative Directors shall be appointed in accordance with the provisions of this Section 2.5.

(b) The Interim Member Representative Directors shall be appointed by the LLC Member by a consent in writing signed by the LLC Member pursuant to the provisions of Article III, Section 3.3 below and in accordance with this Section 2.5 (the "LLC Member Consent"). At least thirty (30) days prior to the date announced as the effective date for the LLC Member Consent (the "Consent Date"), the LLC Member shall report to the Secretary the initial nominees for Interim Member Representative Director positions on the Board that have been approved and submitted by the LLC Member (the "Initial Interim Member Representative Director Nominees"). At least twenty five (25) days prior to the Consent Date the Secretary shall notify the Exchange Member Applicants of those Initial Interim Member Representative Director Nominees (the "Interim Member Representative Director Nominee Notice"). Exchange Member Applicants may identify other candidates ("Interim Member Representative Director Petition Candidates" for purposes of this Section 2.5) for the Interim Member Representative Director positions by delivering to the Secretary, no later than fourteen (14) days after the date of the Interim Member Representative Director Nominee Notice (the "Interim Record Date" for purposes of this Section 2.5), a written petition, which shall designate the candidate by name and office and shall be signed by Executive Representatives of ten percent (10%) or more of the Exchange Member Applicants. An Exchange Member Applicant may endorse as many candidates as there are Interim Member Representative Director positions to be filled. No Exchange Member Applicant, together with its affiliates, may account for more than fifty percent (50%) of the signatures endorsing a particular candidate, and any signatures of such Exchange Member Applicant, together with its affiliates, in excess of the fifty percent (50%) limitation shall be disregarded. Exchange Member Applicants means persons and entities who have submitted the Initial Documents for membership in the Exchange, who would meet the qualifications for membership based on the information contained in the Initial Documents. Initial Documents means: either the Exchange Membership Pre-Application Survey or the Exchange Participant Connectivity Request Form.

(c) Each petition for an Interim Member Representative Director Petition Candidate must include a completed questionnaire used to gather information concerning Interim Member Representative Director candidates and must be filed with the Company (the Company shall provide the form of questionnaire upon the request of any Exchange Member Applicant).

(d) If no valid petitions from Exchange Member Applicants are received by the Interim Record Date, the Initial Interim Member Representative Director Nominees approved and submitted by the LLC Member pursuant to Section 2.5(b) shall be nominated as Interim Member Representative Directors. If one or more valid petitions from Exchange Member Applicants are received by the Interim Record Date, the Secretary shall include such additional nominees, along with the Initial Interim Member Representative Director Nominees, on a list of nominees (the "List of Interim Member Representative Director Candidates"). Upon completion, the List of Interim Member Representative Director Candidates shall be sent by the Secretary to all Exchange Member Applicants that were Exchange Member Applicants on the Interim Record Date by electronic transmission to confirm the nominees for the Interim Member Representative Director positions. The List of Interim Candidates shall be accompanied by a notice regarding the time and date of an election (the "Interim Election Notice") to be held electronically no sooner than five (5) days after the Interim Election Notice is delivered to confirm the Exchange Member Applicants' selections of nominees for Interim Member Representative Directors.

(e) With respect to the election held to determine the final nomination of Interim Member Representative Directors, each Exchange Member Applicant shall have the right to cast one (1) vote for each available Interim Member Representative Director nomination; provided, however, that any such vote must be cast for a person on the List of Interim Candidates and that no Exchange Member Applicant, together with its affiliates, may account for more than twenty percent (20%) of the votes cast for a candidate, and any votes cast by such Exchange Member Applicant, together with its affiliates, in excess of such twenty percent (20%) limitation shall be disregarded. The votes shall be cast by electronic transmission as set forth in a notice to the Exchange Member Applicants sent by the Company prior to such election. Only votes received prior to 5:00 p.m. Eastern Time on the date of the election shall count for the nomination of a Member Representative Director. The persons on the List of Interim Candidates who receive the most votes shall be selected as the nominees for the Interim Member Representative Director positions to be elected by the LLC Member pursuant to the Consent on the Consent Date.

(f) In the event of a tie vote for two or more Interim Member Representative Director positions, the tie will be broken by lot in a manner determined by the LLC Member.

Section 2.6 Chairman of the Board

The Board shall appoint one of the Directors to serve as the Chairman of the Board ("Chairman"). The Chairman shall preside at all meetings of the Board at which the Chairman is present; provided, however, that if the Chairman is the Chief Executive Officer he or she shall not participate in executive sessions of the Board. The Chairman shall exercise such other powers and perform such other duties as may be assigned to the Chairman from time to time by the Board. If the Chairman is the Chief Executive Officer, the Board of Directors shall designate a Lead Director from among the Board's Independent Directors to preside over executive sessions of the Board. The Board shall publicly disclose the identity of the Lead Director, if any, and the means by which interested parties may communicate with such Lead Director.

Section 2.7 Vice Chairman

Each year following the annual election of the Directors, the Board may select a Vice Chairman of the Board (the "Vice Chairman") to serve for a term of one year and until a successor is elected or appointed and qualified. The Vice Chairman shall (i) preside over the meetings of the Board in the event the Chairman of the Board is absent or unable to do so, and (ii) exercise such other powers and perform such other duties as are delegated to the Vice Chairman of the Board by the Board.

Section 2.8 Vacancies

(a) Whenever any Director position becomes vacant prior to the election of a successor at the end of such Director's term, whether because of death, disability, disqualification, removal, or resignation, the Nominating Committee shall nominate, and the LLC Member shall elect, a person satisfying the classification (Industry, Non-Industry, or Independent Director), if applicable, for the directorship as provided in Article II, Section 2.2(b) to fill such vacancy; *provided*, however, that if the remaining term of office of a Member Representative Director at the time of such Director's termination is not more than six months, during the period of vacancy the Board shall not be deemed to be in violation of Article II, Section 2.2(b) by virtue of such vacancy.

(b) If the LLC Member fills a vacancy resulting from a Member Representative Director position becoming vacant prior to the expiration of such Member Representative Director's term, or resulting from the creation of an additional Member Representative Director position required by an increase in the size of the Board, then the LLC Member shall follow the procedures set forth in this Section 2.8(b). In such an event, the Member Nominating Committee shall either (i) recommend an individual to the LLC Member to be elected to fill such vacancy or (ii) provide a list of recommended individuals to the LLC Member from which the LLC Member shall elect the individual to fill such vacancy. The LLC Member shall elect, pursuant to this Section 2.8(b), only individuals recommended by the Member Nominating Committee.

Section 2.9 Removal and Resignation

(a) Except as hereinafter provided, any Director may be removed or expelled with or without cause by the LLC Member, and may be removed by the Board of Directors in the manner provided by Article II, Section 2.9(b) below; provided, however, that any Member Representative Director may only be removed for cause, which shall include, without limitation, such Director being subject to a statutory disqualification.

(b) A Director shall be removed immediately upon a determination by the Board, by a majority vote of the remaining Directors: (i) that the Director no longer satisfies the classification for which the Director was elected; and (ii) that the Director's continued service as such would violate the compositional requirements of the Board set forth in Article II, Section 2.2(b).

(c) Any Director may resign at any time either upon notice of resignation to the Chairman of the Board, the President or the Secretary. Any such resignation shall take effect at the time specified therein or, if the time is not specified, upon receipt thereof, and the acceptance of such resignation, unless required by the terms thereof, shall not be necessary to make such resignation effective.

Section 2.10 Place of Meetings; Mode

Any meeting of the Board may be held at such place, within or without the State of Delaware, as shall be designated in the notice of such meeting, but if no such designation is made, then the meeting will be held at the principal business office of the Company. Members of the Board or any committee of the Board may participate in a meeting of the Board or committee by conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

Section 2.11 Regular Meetings

Regular meetings of the Board may be held, with or without notice, at such time or place as may from time to time be specified in a resolution adopted by the Board.

Section 2.12 Special Meetings

(a) Special meetings of the Board may be called on a minimum of two (2) days' notice to each Director by the Chairman, the Chief Executive Officer or the President, and shall be called by the Secretary upon the written request of three (3) Directors then in office.

(b) The person or persons calling a special meeting of the Board shall fix the time and place at which the meeting shall be held, and such time and place shall be specified in the notice of such meeting. Notice of any special meeting shall be given to each Director at his or her business address or such other address as he or she may have advised the Secretary to use for such purpose. If delivered, notice shall be deemed to be given when delivered to such address or to the Director to be notified. If mailed, such notice shall be deemed to be given five (5) business days after deposit in the United States mail, postage prepaid, of a letter addressed to the appropriate location. Notice may also be given by telephone, electronic transmission or other means not specified in this section, and in each such case shall be deemed to be given when actually received by the Director to be notified.

Section 2.13 Exchange Member Meetings

The Company shall not be required to hold meetings of the Exchange Members.

Section 2.14 Voting, Quorum and Action by the Board

Each Director shall be entitled to one (1) vote. At all meetings of the Board, the presence of a majority of the number of Directors then in office shall constitute a quorum for the transaction of business. If a quorum shall not be present at any meeting of the Board, the Directors present at such meeting may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. The act of a majority of the Directors present at any meeting at which there is a quorum shall be the act of the Board except as may be otherwise specifically provided by statute, the Certificate of Formation, the LLC Agreement or these By-Laws.

Section 2.15 Presumption of Assent

A Director of the Company who is present at a duly convened meeting of the Board or of a committee of the Board at which action on any corporate matter is taken shall be conclusively

presumed to have assented to the action taken unless his or her dissent or election to abstain shall be entered in the minutes of the meeting or unless he or she shall file his or her written dissent or election to abstain to such action with the person acting as the secretary of the meeting before the adjournment of the meeting or shall forward such dissent or election to abstain by registered or certified mail to the Secretary of the Company immediately after the adjournment of the meeting. Such right to dissent or abstain shall not apply to a Director who voted in favor of such action.

Section 2.16 Action in Lieu of Meeting

Unless otherwise restricted by statute, the Certificate of Formation, the LLC Agreement or these By-Laws, any action required or permitted to be taken at any meeting of the Board or any committee thereof may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing(s) or electronic transmission(s) are filed with the minutes of proceedings of the Board or the committee.

Section 2.17 Waiver of Notice

(a) Whenever notice is required to be given by law, the Certificate of Formation, the LLC Agreement or these By-Laws, a waiver thereof by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board, or members of a committee, need be specified in any waiver of notice.

(b) Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

Section 2.18 Compensation of Board and Committee Members

The Board may provide for reasonable compensation of the Chairman, the Directors and the members of committees. The Board may also provide for reimbursement of reasonable expenses incurred by such persons in connection with the business of the Company.

Section 2.19 Interpretation of By-Laws

The Board shall have the power to interpret these By-Laws and any interpretation made by it shall be final and conclusive.

Section 2.20 Conflicts of Interest; Contracts and Transactions Involving Directors

(a) A Director or a member of any committee may not participate in the consideration or decision of any matter relating to a particular Exchange Member, company, or individual if such Director or committee member has a material interest in, or a professional, business, or personal relationship with, that Exchange Member, company, or individual, or if such participation shall create an appearance of impropriety. In any such case, the Director or committee member shall recuse himself or herself or shall be disqualified. If a member of the Board or any committee is recused from consideration of a matter, any decision on the matter shall be by a vote of a majority of the remaining members of the Board or applicable committee.

(b) No contract or transaction between the Company and one or more of its Directors or officers, or between the Company and any other corporation, partnership, association, or other organization in which one or more of its Directors or officers are directors or officers, or have a financial interest, shall be void or voidable solely for this reason if: (i) the material facts pertaining to such Director's or officer's relationship or interest and the contract or transaction are disclosed or are known to the Board or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative vote of a majority of the disinterested Directors, even though the disinterested Directors be less than a quorum; or (ii) the material facts are disclosed or become known to the Board or committee after the contract or transaction is entered into, and the Board or committee in good faith ratifies the contract or transaction by the affirmative vote of a majority of the disinterested Directors, even though the disinterested Directors be less than a quorum.

ARTICLE III
The LLC Member

Section 3.1 Annual Meeting; Election of Directors and Other Matters

(a) The annual meeting of the LLC Member shall be held at such place and time as determined by the Board for the purpose of electing Directors and members of the Nominating Committee and Member Nominating Committee, and for conducting such other business as may properly come before the meeting. Written notice of the annual meeting stating the place, date and hour of the meeting shall be given to the LLC Member not less than ten (10) nor more than sixty (60) days before the date of the meeting.

(b) The Interim Directors, including the Interim Member Representative Directors, shall be appointed prior to the Company's commencement of operations as an Exchange. The first annual meeting of the LLC Member shall be held within ninety (90) days after the Company's application for registration as a national securities exchange is granted.

Section 3.2 Special Meetings

Special meetings of the LLC Member, for any purpose or purposes, may be called by the Chairman, the Board, the Chief Executive Officer or the President, and shall be called by the Secretary at the request in writing of the LLC Member. Written notice of a special meeting stating the place, date and hour of the meeting and the purpose or purposes for which the meeting is called, shall be given to the LLC Member not less than ten (10) nor more than sixty (60) days before the date of the meeting. Business transacted at any special meeting of the LLC Member shall be limited to the purpose(s) stated in the notice of the meeting.

Section 3.3 Action in Lieu of Meeting

Any action upon which a vote of the LLC Member is required or permitted, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the LLC Member.

Section 3.4 Assignment

The LLC Member may not transfer or assign in whole or in part its limited liability company interest in the Company to any entity, unless such transfer or assignment shall be filed with and approved by the Commission under Section 19 of the Exchange Act and the rules promulgated thereunder.

ARTICLE IV
Committees

Section 4.1 Designation of Committees

(a) **Committees of the Board.** The committees of the Board shall consist of a Compensation Committee, an Audit Committee, a Regulatory Oversight Committee, an Appeals Committee, and such other committees as may be provided in these By-Laws or the Rules or as may be from time to time established by the Board. Committees shall have such authority as is vested in them by these By-Laws or the Rules, or as is delegated to them by the Board. All committees are subject to the control and supervision of the Board.

(b) **Committees of the Exchange.** The Exchange also shall have such other committees as may be provided in these By-Laws or the Rules or as may be from time to time created by the Board. Except as may be otherwise provided in these By-Laws, the Rules or the resolution of the Board establishing any such other committee, the Chairman or his or her designee, with the approval of the Board, shall appoint the members of such Exchange committees (other than the committees of the Board) and may designate, with the approval of the Board, a Chairman thereof. Except as may be otherwise provided in these By-Laws or the Rules, the Chairman or his or her designee may, at any time, with or without cause, remove any member of any such Exchange committee.

Section 4.2 Board Committees - Appointment and Removal; Vacancies; Term

(a) Except as may be otherwise provided in these By-Laws, the Rules or the resolution of the Board establishing any committee, the Chairman, with the approval of the Board, shall appoint, consistent with these By-Laws, the members of all committees of the Board, and the Chairman may, at any time, with or without cause, remove any member of a committee so appointed, with the approval of the Board. Each committee shall be comprised of at least three (3) people and except as provided in these By-Laws may include persons who are not members of the Board; provided, however, that such committee members who are not also members of the Board shall only participate in committee actions to the extent permitted by law. In appointing members to committees of the Board, the Chairman is responsible for determining that any such committee meets the composition requirements set forth in this Article IV.

(b) Upon request of the Secretary, each prospective committee member who is not a Director shall provide to the Secretary such information as is reasonably necessary to serve as the basis for a determination of the prospective committee member's classification as an Industry, Non-Industry, or Independent member. The Secretary shall certify to the Board each prospective committee member's classification. Such committee members shall update the information submitted under this subsection at least annually and upon request of the Secretary, and shall report immediately to the Secretary any change in such information. A committee member may not be subject to a statutory disqualification.

(c) The term of office of a committee member shall terminate immediately upon a determination by the Board, by a majority vote of the Directors, (i) that the committee member no longer satisfies the classification for which the committee member was selected; and (ii) that the committee member's continued service as such would violate the compositional requirements of such committee set forth in this Article IV.

(d) Any vacancy occurring in a committee shall be filled by the Chairman for the remainder of the term, with the approval of the Board.

(e) Except as otherwise provided by the By-Laws, members of a committee shall hold office for a one-year period.

Section 4.3 Conduct of Proceedings

Except as otherwise provided in these By-Laws, the Rules, the Charter of the committee or by the Board by resolution, each committee may adopt its own rules of procedure and may meet at stated times or on such notice as such committee may determine. In the absence of any such established procedures, each committee shall conduct its business in the same manner as the Board of Directors conducts its business pursuant to Article II of these By-Laws. Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

Section 4.4 Voting, Quorum and Action by Committees

Each committee member shall be entitled to one (1) vote. Unless otherwise required by the By-Laws, the Rules or the Charter of the committee, the presence of a majority of the number of committee members serving on a committee shall constitute a quorum for the transaction of business of such committee. If a quorum shall not be present at any meeting of a committee, the committee members present at such meeting may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present. The act of a majority of the committee members present at any meeting at which there is a quorum shall be the act of such committee except as may be otherwise specifically provided by statute or these By-Laws, the Rules or the Charter of the committee.

Section 4.5 Specified Board Committees

(a) **Compensation Committee**. The Chairman, with the approval of the Board, shall appoint a Compensation Committee consisting of Non-Industry Directors. The Compensation Committee shall consider and recommend compensation policies, programs, and practices for officers and other employees of the Company.

(b) **Audit Committee**. The Chairman, with the approval of the Board, shall appoint an Audit Committee consisting of Directors. A majority of the Audit Committee members shall be Non-Industry Directors. A Non-Industry Director shall serve as Chairman of the Audit Committee. The Audit Committee shall perform the following primary functions, as well as such other functions as may be specified in the charter of the Audit Committee: (i) provide oversight over the Company's financial reporting process and the financial information that is provided to the LLC Member and others; (ii) provide oversight over the systems of internal controls established by management and the Board and the Company's legal and compliance process; and (iii) direct and oversee all the

activities of the Company's internal audit function, including but not limited to management's responsiveness to internal audit recommendations. The Audit Committee shall have exclusive authority to: (i) hire or terminate the head of the Company's Internal Audit Department; (ii) determine the compensation of the head of the Internal Audit Department; and (iii) determine the budget for the Internal Audit Department. The Internal Audit Department and its head shall report directly to the Audit Committee. The Audit Committee may, in its discretion, direct that the Internal Audit Department also report to senior management of the Company on matters the Audit Committee deems appropriate and may request that senior management of the Company perform such operational oversight as necessary and proper, consistent with preservation of the independence of the internal audit function.

(c) **Regulatory Oversight Committee**. The Chairman, with the approval of the Board, shall appoint a Regulatory Oversight Committee consisting of Non-Industry Directors. The Regulatory Oversight Committee shall oversee the adequacy and effectiveness of Exchange's regulatory and self-regulatory organization responsibilities, and shall be responsible for assessing the Exchange's regulatory performance and recommending compensation and personnel actions involving the Chief Regulatory Officer and senior regulatory personnel to the Board's Compensation Committee for action. The Regulatory Oversight Committee shall also assist the Board and committees of the Board in reviewing the regulatory plan and the overall effectiveness of Exchange's regulatory functions. In furtherance of its functions, the Regulatory Oversight Committee (i) shall review the Exchange's regulatory budget, which shall be approved by the Board of Directors, and shall specifically inquire into the adequacy of resources available in the budget for regulatory activities; and (ii) shall meet regularly with the Chief Regulatory Officer in executive session.

(d) **Appeals Committee**. The Chairman, with the approval of the Board, shall appoint an Appeals Committee. The Appeals Committee shall preside over all appeals related to disciplinary and adverse action determinations in accordance with the Exchange Rules. The Appeals Committee shall consist of one Independent Director, one Industry Director, and one Member Representative Director. If the Independent Director recuses himself or herself from an appeal, due to a conflict of interest or otherwise, such Independent Director may be replaced by a Non-Industry Director for purposes of the applicable appeal if there is no other Independent Director able to serve as the replacement.

(e) **Executive Committee**. The Chairman, with the approval of the Board, may appoint an Executive Committee consisting of Directors, which shall, to the fullest extent permitted by Delaware law and other applicable law, have and be permitted to exercise all the powers and authority of the Board in the management of the business and affairs of the Company between meetings of the Board. The number of Non-Industry Directors on the Executive Committee shall equal or exceed the number of Industry Directors on the Executive Committee. The percentage of Independent Directors on the Executive Committee shall be at least as great as the percentage of Independent Directors on the whole Board, and the percentage of Member Representative Directors on the Executive Committee shall be at least as great as the percentage of Member Representative Directors on the whole Board.

(f) **Finance Committee**. The Chairman, with the approval of the Board, may appoint a Finance Committee consisting of Directors. A majority of the Finance Committee members shall be Non–Industry Directors. The Finance Committee shall advise the Board with respect to the oversight of the financial operations and conditions of the Company, including recommendations for Company's annual operating and capital budgets.

Section 4.6 Quality of Markets Committee.

The Chairman, with the approval of the Board, shall appoint a Quality of Markets Committee. The Quality of Markets Committee shall provide advice and guidance to the Board on issues relating to the fairness, integrity, efficiency and competitiveness of the information, order handling and execution mechanisms of the Exchange from the perspective of investors, both individual and institutional, retail firms, market making firms, Exchange listed companies and other market participants. The Quality of Markets Committee shall include broad representation of participants in the Exchange, including investors, market makers, integrated retail firms and order entry firms. The Quality of Markets Committee shall include a number of Member Representative members that is equal to at least 20 percent of the total number of members of the Quality of Markets Committee. The number of Non-Industry members of the Quality of Markets Committee shall equal or exceed the sum of the number of Industry members and Member Representative members.

Section 4.7 Business Conduct Committee

There shall be a Business Conduct Committee which shall not be a Board Committee but shall be a committee of the Exchange. The Chairman shall appoint a Business Conduct Committee composed of such number of Exchange Members and individuals who are not Exchange Members as the Chairman shall deem necessary, none of whom shall be Directors. The Business Conduct Committee or any panel thereof shall include at least one officer, director or employee of an Exchange Member.

The jurisdiction, function and powers shall be exercised by the Business Conduct Committee in accordance with the provisions set forth in the Exchange Rules.

ARTICLE V
Nominating Committees

Section 5.1 Election of Nominating Committee and Member Nominating Committee

The Nominating Committee and the Member Nominating Committee shall each be elected on an annual basis by vote of the LLC Member. The LLC Member shall appoint the initial Nominating Committee and Member Nominating Committee consistent with the compositional requirements of this Article V within fifteen (15) days after the Exchange's application for registration as a national securities exchange is granted. Because the first annual meeting of the LLC Member is intended to be held within ninety (90) days after the Exchange's application for registration as a national securities exchange is granted, the initial Nominating Committee and Member Nominating Committee shall serve until the second annual meeting of the LLC Member. Not later than sixty (60) days prior to the date announced as the date for each annual meeting of the LLC Member commencing with the second annual meeting of the LLC Member, the Nominating Committee and the Member Nominating Committee shall nominate candidates to serve on the succeeding year's Nominating Committee and Member Nominating Committee, as applicable, and notify the Secretary of such nominees. Such candidates shall be voted on by the LLC Member at the annual meeting of the LLC Member. Additional candidates for the Member Nominating Committee may be nominated and elected pursuant to the same process as provided for in Article II, Section 2.4.

Section 5.2 Nominating Committee

The Nominating Committee shall nominate candidates for election to the Board at the annual LLC Member meeting and all other vacant or new Director positions on the Board. The Nominating Committee, in making such nominations, is responsible for ensuring that candidates meet the compositional requirements of Article II, Section 2.2(b). The number of Non-Industry members on the Nominating Committee shall equal or exceed the number of Industry members on the Nominating Committee. A Nominating Committee member may not simultaneously serve on the Nominating Committee and the Board, unless such member is in his or her final year of service on the Board, and following that year, that member may not stand for election to the Board until such time as he or she is no longer a member of the Nominating Committee. No more than one (1) member of the Nominating Committee shall be a current Director, and such Director shall be a Non-Industry Director.

Section 5.3 Member Nominating Committee

The Member Nominating Committee shall nominate candidates for each Member Representative Director position on the Board that is to be elected by Exchange Members or the LLC Member under the terms of these By-Laws. Each member of the Member Nominating Committee shall be a Member Representative member and shall not be required to be a Director of the Company.

ARTICLE VI
Officers, Agents and Employees

Section 6.1 General

The officers of the Company shall include a Chief Executive Officer, a President, a Chief Financial Officer, a Chief Regulatory Officer, a Secretary, a Treasurer, and such other officers as in the Board's opinion are desirable for the conduct of the business of the Company, including but not limited to a Vice Chairman. Any two or more offices may be held by the same person, except that the offices of the President and Secretary may not be held by the same person. No person that is subject to any statutory disqualification may be an officer of the Company.

Section 6.2 Appointment and Tenure

Each officer of the Company shall be appointed by the Board on an annual basis, and shall hold office until his or her successor is appointed and qualified or until his or her earlier death, disability, disqualification, removal or resignation. An officer may serve for any number of terms, consecutive or otherwise.

Section 6.3 Resignation and Removal of Officers; Vacancies

(a) Any officer may resign at any time upon notice of resignation to the Chairman and Chief Executive Officer, the President, or the Secretary. Any such resignation shall take effect upon receipt of such notice or at any later time specified therein, or if the time is not specified, upon receipt thereof, and the acceptance of such resignation, unless required by the terms thereof, shall not be necessary to make such resignation effective.

(b) Any officer of the Company may be removed, with or without cause, by the Board. Such removal shall be without prejudice to the contractual rights of the affected officer, if any, with the Company.

(c) Vacancies in any office of the Company may be filled for the unexpired term by the Board.

Section 6.4 Compensation

The Compensation of the Chairman, the Vice Chairman and the Chief Executive Officer shall be fixed by the Compensation Committee. The salaries of all other officers and agents of the Company shall be fixed by the Chief Executive Officer, in consultation with the Compensation Committee.

Section 6.5 Powers and Duties; Delegation

Each of the officers of the Company shall, unless otherwise ordered by the Board, have such powers and duties as customarily pertain to the respective office, and such further powers and duties as from time to time may be conferred by the Board, or by an officer delegated such authority by the Board. The Board may delegate the duties and powers of any officer of the Company to any other officer or to any Director for a specified period of time and for any reason that the Board may deem sufficient.

Section 6.6 Chief Executive Officer

The Chief Executive Officer shall be the chief executive officer of the Company, shall have general supervision over the business and affairs of the Company and shall serve at the pleasure of the Board. The Chief Executive Officer shall have all powers and duties usually incident to the office of the Chief Executive Officer, except as specifically limited by a resolution of the Board. The Chief Executive Officer shall exercise such other powers and perform such other duties as may be assigned to the Chief Executive Officer from time to time by the Board.

Section 6.7 President

The President shall, in the absence of the Chairman, the Vice Chairman and Chief Executive Officer, preside at all meetings of the Board at which the President is present. The President shall have general supervision over the operations of the Company. The President shall have all powers and duties usually incident to the office of the President, except as specifically limited by a resolution of the Board. The President shall exercise such other powers and perform such other duties as may be assigned to the President from time to time by the Board.

Section 6.8 Vice President

The Board shall appoint one or more Vice Presidents. In the absence or disability of the President or if the office of President becomes vacant, the Vice Presidents in the order determined by the Board, or if no such determination has been made, in the order of their seniority, shall perform the duties and exercise the powers of the President, subject to the right of the Board at any time to extend or restrict such powers and duties or to assign them to others. Any Vice President may have such additional designations in such Vice President's title as the Board may determine. The Vice

Presidents shall generally assist the President in such manner as the President shall direct. Each Vice President shall exercise such other powers and perform such other duties as may be assigned to such Vice President from time to time by the Board, the Chief Executive Officer or the President. The term "Vice President" used in this Section shall include the positions of Executive Vice President, Senior Vice President, and Vice President.

Section 6.9 Chief Financial Officer

The Chief Financial Officer shall perform such duties and possess such powers as the Board or the Chief Executive Officer may from time to time prescribe. The Chief Financial Officer shall have the custody of the Company's funds and securities; shall keep full and accurate all books and accounts of the Company as shall be necessary or desirable in accordance with applicable law or generally accepted accounting principles; shall deposit all monies and other valuable effects in the name and to the credit of the Company as may be ordered by the Chief Executive Officer or the Board; shall cause the funds of the Company to be disbursed when such disbursements have been duly authorized, taking proper vouchers for such disbursements; and shall render to the Board, at its regular meeting or when the Board so requires, an account of the Company.

Section 6.10 Chief Regulatory Officer

An officer of the Company with the position of Vice President, Senior Vice President or Executive Vice President shall be designated as the Chief Regulatory Officer of the Company. The Chief Regulatory Officer shall have general supervision of the regulatory operations of the Company, including responsibility for overseeing the Company's surveillance, examination, and enforcement functions and for administering any regulatory services agreements with another self-regulatory organization to which the Company is a party. The Chief Regulatory Officer shall report to the Regulatory Oversight Committee. The Chief Regulatory Officer shall meet with the Regulatory Oversight Committee of the Company in executive session at regularly scheduled meetings of such committee, and at any time upon request of the Chief Regulatory Officer or any member of the Regulatory Oversight Committee. The Chief Regulatory Officer may, but is not required to, also serve as the General Counsel of the Company.

Section 6.11 Secretary

The Secretary shall act as Secretary of all meetings of the Board at which the Secretary is present, shall record all the proceedings of all such meetings in a book to be kept for that purpose, shall have supervision over the giving and service of notices of the Company, and shall have supervision over the care and custody of the books and records of the Company. The Secretary shall be empowered to affix the Company's seal, if any, to documents, the execution of which on behalf of the Company under its seal is duly authorized, and when so affixed, may attest the same. The Secretary shall have all powers and duties usually incident to the office of Secretary, except as specifically limited by a resolution of the Board. The Secretary shall exercise such other powers and perform such other duties as may be assigned to the Secretary from time to time by the Board, the Chief Executive Officer or the President.

Section 6.12 Assistant Secretary

In the absence of the Secretary or in the event of the Secretary's inability or refusal to act, any Assistant Secretary, approved by the Board, shall exercise all powers and perform all duties of

the Secretary. An Assistant Secretary shall also exercise such other powers and perform such other duties as may be assigned to such Assistant Secretary from time to time by the Board or the Secretary.

Section 6.13 Treasurer

The Treasurer shall have general supervision over the care and custody of the funds and over the receipts and disbursements of the Company and shall cause the funds of the Company to be deposited in the name of the Company in such banks or other depositories as the Board may designate. The Treasurer shall have supervision over the care and safekeeping of the securities of the Company. The Treasurer shall have all powers and duties usually incident to the office of Treasurer except as specifically limited by a resolution of the Board. The Treasurer shall exercise such other powers and perform such other duties as may be assigned to the Treasurer from time to time by the Board, the Chief Executive Officer or the President.

Section 6.14 Assistant Treasurer

In the absence of the Treasurer or in the event of the Treasurer's inability or refusal to act, any Assistant Treasurer, approved by the Board, shall exercise all powers and perform all duties of the Treasurer. An Assistant Treasurer shall also exercise such other powers and perform such other duties as may be assigned to such Assistant Treasurer from time to time by the Board or the Treasurer.

ARTICLE VII
Indemnification and Insurance

Section 7.1 Right to Indemnification

Each person who was or is made a party or is threatened to be made a party to or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she or a person of whom he or she is the legal representative is or was a director or an officer of the Company or is or was serving at the request of the Company as a director, officer, employee or agent of any other corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to any employee benefit plan (hereinafter an "indemnitee"), whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the Company to the fullest extent authorized by the LLC Act, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Company to provide broader indemnification rights than the LLC Act permitted the Company to provide prior to such amendment), against all expense, liability and loss (including, without limitation, attorneys' fees, judgments, fines, excise taxes or penalties under the Employee Retirement Income Security Act of 1974, as amended, and amounts paid or to be paid in settlement) reasonably incurred by such indemnitee in connection therewith; provided, however, that except as provided in Section 7.3 with respect to proceedings seeking to enforce rights to indemnification, the Company shall indemnify any such indemnitee seeking indemnification in connection with a proceeding (or part thereof) initiated by such indemnitee only if such proceeding (or part thereof) was authorized by the Board of Directors.

Section 7.2 Right to Advancement of Expenses

The right to indemnification conferred in Section 7.1 shall include the right to be paid by the Company the expenses (including attorneys' fees) incurred in defending any such proceeding in advance of its final disposition (hereinafter an "advancement of expenses"); provided, however, that, if the LLC Act requires, an advancement of expenses incurred by an indemnitee in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the Company of an undertaking (hereinafter an "undertaking"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "final adjudication") that such indemnitee is not entitled to be indemnified for such expenses under this Section 7.2 or otherwise.

Section 7.3 Right of Indemnitee to Bring Suit

If a claim under Section 7.1 or Section 7.2 is not paid in full by the Company within thirty (30) days after a written claim has been received by the Company, except in the case of a claim for an advancement of expenses, in which case the applicable period shall be twenty (20) days, the indemnitee may at any time thereafter bring suit against the Company to recover the unpaid amount of the claim. If successful in whole or in part in any such suit, or in a suit brought by the Company to recover an advancement of expenses pursuant to the terms of an undertaking, the indemnitee shall also be entitled to be paid the expense of prosecuting or defending such suit.

In (i) any suit brought by the indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the indemnitee to enforce a right of an advancement of expenses) it shall be a defense that, and (ii) in any suit brought by the Company to recover an advancement of expenses pursuant to the terms of an undertaking, the Company shall be entitled to recover such expenses upon a final adjudication that, the indemnitee has not met any applicable standard for indemnification set forth in the LLC Act. Neither the failure of the Company (including its Board of Directors, independent legal counsel or the LLC Member) to have made a determination prior to the commencement of such action that indemnification of the indemnitee is proper in the circumstances because the indemnitee has met the applicable standard of conduct set forth in the Act, nor an actual determination by the Company (including its Board of Directors, independent legal counsel or the LLC Member) that the indemnitee has not met such applicable standard of conduct, shall create a presumption that the indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the indemnitee, be a defense to such suit. In any suit brought by the indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Company to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article VII or otherwise shall be on the Company.

Section 7.4 Non-Exclusivity of Rights

The right to indemnification and the advancement of expenses conferred in this Article VII shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provision of the LLC Agreement, provision of these By-Laws, agreement, vote of the LLC Member or disinterested directors or otherwise.

Section 7.5 Insurance

The Company may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Company or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Company would have the power to indemnify such person against such expense, liability or loss under the law.

Section 7.6 Indemnification of Employees and Agents of the Company

The Company may, to the extent authorized from time to time by the Board of Directors, grant rights to indemnification, and rights to the advancement of expenses, to any employee or agent of the Company to the fullest extent of the provisions of this Article VII with respect to the indemnification and advancement of expenses of directors and officers of the Company.

Section 7.7 Contract Rights

The rights to indemnification and to the advancement of expenses conferred in Section 7.1 and Section 7.2 shall be contract rights and such rights shall continue as to an indemnitee who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the indemnitee's heirs, executors and administrators.

Section 7.8 Company Not Liable

Except as provided in the Exchange Rules, the Company shall not be liable for any loss or damage sustained by any current or former Exchange Member growing out of the use or enjoyment by such Exchange Member of the facilities afforded by the Company (or any predecessor or successor thereof) or its subsidiaries.

ARTICLE VIII
Amendments; Emergency By-Laws

Section 8.1 By the LLC Member or Board

These By-Laws may be altered, amended, or repealed, or new By-Laws may be adopted, (i) by the written consent of the LLC Member, or (ii) at any regular or special meeting of the Board by a resolution adopted by the Board.

Section 8.2 Emergency By-Laws

The Board may adopt emergency By-Laws subject to repeal or change by action of the LLC Member which shall, notwithstanding any different provision of law, the Certificate of Formation, the LLC Agreement or these By-Laws, be operative during any emergency resulting from any nuclear or atomic disaster, an attack on the United States or on a locality in which the Company conducts its business or customarily holds meetings of the Board, any catastrophe, or other emergency condition, as a result of which a quorum of the Board or a committee thereof cannot readily be convened for action. Such emergency By-Laws may make any provision that may be practicable and necessary under the circumstances of the emergency.

Section 8.3 Authority to Take Action Under Extraordinary Market Conditions

The Board, or such person or persons as may be designated by the Board, in the event of extraordinary market conditions, shall have the authority to take any action regarding:

(a) the trading in or operation of the national securities exchange operated by the Company or any other organized securities markets that may be operated by the Company, the operation of any automated system owned or operated by the Company, and the participation in any such system or any or all persons or the trading therein of any or all securities; and

(b) the operation of any or all systems of Exchange Members, if, in the opinion of the Board or the person or persons hereby designated, such action is necessary or appropriate for the protection of investors or the public interest or for the orderly operation of the marketplace or the system.

Section 8.4 Commission Approval

Before any amendment to, alteration or repeal of any provision of the By-Laws of the Company under this Article VIII shall be effective, those changes shall be submitted to the Board and if the same must be filed with or filed with and approved by the Commission, then the proposed changes to the By-Laws of the Company shall not become effective until filed with or filed with and approved by the Commission, as the case may be.

ARTICLE IX
Exchange Authorities

Section 9.1 Rules

The Board, acting in accordance with the terms of these By-Laws and the Rules, shall be vested with all powers necessary for the government of the Company as an "exchange" within the meaning of the Act. To promote and enforce just and equitable principles of trade and business, to maintain high standards of commercial honor and integrity among Exchange Members, to collaborate with governmental and other agencies in the promotion of fair practices and the elimination of fraud, and in general to carry out the purposes of the Company and of the Act, the Board is hereby authorized to adopt such rules and such amendments thereto as it may, from time to time, deem necessary or appropriate. If any such rules or amendments thereto are approved by the Commission or otherwise become effective as provided in the Act, they shall become operative Exchange Rules as of the date of Commission approval or effectiveness under the Act unless a later operative date is declared by the Company. The Board is hereby authorized, subject to the provisions of these By-Laws and the Act, to administer, enforce, interpret, issue exemptions from, suspend, or cancel any Rules adopted hereunder.

Section 9.2 Disciplinary Proceedings

(a) The Board is authorized to establish procedures relating to disciplinary proceedings involving Exchange Members and their associated persons.

(b) The Board is authorized to impose appropriate sanctions applicable to Exchange Members, including censure, fine, suspension, or expulsion from membership, suspension or bar

from being associated with all Exchange Members, limitation of activities, functions, and operations of an Exchange Member, or any other fitting sanction, and to impose appropriate sanctions applicable to persons associated with Exchange Members, including censure, fine, suspension, or barring a person associated with an Exchange Member from being associated with all Exchange Members, limitation of activities, functions, and operations of a person associated with an Exchange Member, or any other fitting sanction, for:

(i) a breach by an Exchange Member or a person associated with an Exchange Member of any covenant with the Company or its LLC Member;

(ii) violation by an Exchange Member or a person associated with an Exchange Member of any of the terms, conditions, covenants, and provisions of the By-Laws, the Rules, or the federal securities laws, including the rules and regulations adopted thereunder;

(iii) failure by an Exchange Member or person associated with an Exchange Member to: (A) submit a dispute for arbitration as may be required by the Rules; (B) appear or produce any document in the Exchange Member's or person's possession or control as directed pursuant to the Rules; (C) comply with an award of arbitrators properly rendered, where a timely motion to vacate or modify such award has not been made pursuant to applicable law or where such a motion has been denied; or (D) comply with a written and executed settlement agreement obtained in connection with an arbitration or mediation submitted for disposition; or

(iv) failure by an Exchange Member or person associated with an Exchange Member to adhere to any ruling, order, direction, or decision of or to pay any sanction, fine, or costs imposed by the Board or any entity to which the Board has delegated its powers.

Section 9.3 Membership Qualifications

(a) The Board shall have authority to adopt rules and regulations applicable to Exchange Members, applicants seeking to become Exchange Members, and persons associated with applicants or Exchange Members, establishing specified and appropriate standards with respect to the training, experience, competence, financial responsibility, operational capability, and such other qualifications as the Board finds necessary or desirable.

(b) The Board may from time to time make such changes in such rules, regulations, and standards as it deems necessary or appropriate.

(c) Uniform standards for regulatory and other access issues, such as admission to membership and conditions to becoming an Exchange market maker, shall be promulgated and applied on a consistent basis, and the Company shall institute safeguards to ensure fair and evenhanded access to all of its services and facilities.

Section 9.4 Fees, Dues, Assessments, and Other Charges

The Board shall have authority to fix and levy the amount of fees, dues, assessments, and other charges to be paid by Exchange Members and issuers and any other persons using any facility or system that the Company operates or controls; provided, however, that such fees, dues, assessments, and other charges shall be equitably allocated among Exchange Members and any other persons using any facility or system that the Company operates or controls. Any Regulatory Funds

will not be used for non-regulatory purposes or distributed to the LLC Member, but rather, shall be applied to fund the legal and regulatory operations of the Company (including surveillance and enforcement activities), or, as the case may be, shall be used to pay restitution and disgorgement of funds intended for customers.

ARTICLE X
Miscellaneous Provisions

Section 10.1 Operational Date of Exchange

The Company has been formed in anticipation of its registration by the Commission as a national securities exchange. During the period between formation and the first date on which the Company commences operating a national securities exchange (the "Operational Date"):

(a) references in the Agreement and By-Laws to "the national securities exchange operated by the Company" shall be construed as references to "the national securities exchange to be operated by the Company"; and

(b) the Board of Directors of the Company may appoint members of the committees to be established under the By-Laws, but shall not be required to appoint all such committee members until the date immediately prior to the Operational Date.

Section 10.2 Fiscal Year

The fiscal year of the Company shall be as determined from time to time by the Board.

Section 10.3 Participation in Board and Committee Meetings

All meetings of the Board (and any committees of the Company) pertaining to the self-regulatory function of the Company (including disciplinary matters) shall be closed to all persons other than members of the Board, officers, staff, counsel or other advisors whose participation is necessary or appropriate to the proper discharge of such regulatory functions and any representatives of the Commission. In no event shall members of the Board of Directors of Miami International Holdings, Inc. who are not also members of the Board, or any officers, staff, counsel or advisors of Miami International Holdings, Inc. who are not also officers, staff, counsel or advisors of the Company (or any committees of the Company), be allowed to participate in any meetings of the Board (or any committee of the Company) pertaining to the self-regulatory function of the Company (including disciplinary matters).

Section 10.4 Books and Records; Confidentiality of Information and Records Relating to SRO Function

The books and records of the Company shall be maintained at a location within the United States. All books and records of the Company reflecting confidential information pertaining to the self-regulatory function of the Company (including but not limited to disciplinary matters, trading data, trading practices, and audit information) shall be retained in confidence by the Company and its personnel and will not be used by the Company for any non-regulatory purposes and shall not be made available to any person (including, without limitation, any Exchange Member) other than to personnel of the Commission, and those personnel of the Company, members of committees of the

Company, members of the Board, hearing officers and other agents of the Company to the extent necessary or appropriate to properly discharge the self-regulatory responsibilities of the Company.

Section 10.5 Execution of Instruments, Contracts, etc.

(a) All checks, drafts, bills of exchange, notes, or other obligations or orders for the payment of money shall be signed in the name of the Company by such officer or officers or person or persons as the Board, or a duly authorized committee thereof, may from time to time designate. Except as otherwise provided by law, the Board, any committee given specific authority in the premises by the Board, or any committee given authority to exercise generally the powers of the Board during intervals between meetings of the Board may authorize any officer, employee, or agent, in the name of and on behalf of the Company, to enter into or execute and deliver deeds, bonds, mortgages, contracts, and other obligations or instruments, and such authority may be general or confined to specific instances.

(b) All applications, written instruments, and papers required by any department of the United States government or by any state, county, municipal, or other governmental authority may be executed in the name of the Company by any officer of the Company, or, to the extent designated for such purpose from time to time by the Board, by an employee or agent of the Company. Such designation may contain the power to substitute, in the discretion of the person named, one or more other persons.

Section 10.6 Power to Vote Stock

Unless otherwise instructed by the Board, the Chairman or the Chief Executive Officer of the Company shall have the power and authority on behalf of the Company to attend and to vote at any meeting of the stockholders, partners or equity holders of any corporation, partnership or any other entity in which the Company may hold stock, partnership or other equity interests, as the case may be, and may exercise on behalf of the Company any and all of the rights and powers incident to the ownership of such stock, partnership or other equity interest at such meeting, and shall have the power and authority to execute and deliver proxies, waivers and consents on behalf of the Company in connection with the exercise by the Company of the rights and powers incident to the ownership of such stock, partnership or other equity interest. The Board may from time to time confer like powers upon any other person or persons.

Section 10.7 Severability

If any provision of these By-Laws, or the application of any provision of these By-Laws to any person or circumstances, is held invalid, the remainder of these By-Laws and the application of such provision to other persons or circumstances shall not be affected.

Effective Date: December 5, 2016

D

State of Delaware
Secretary of State
Division of Corporations
Delivered 11:38 AM 06/29/2011
FILED 11:38 AM 06/29/2011
SRV 110774902 - 4812494 FILE

STATE OF DELAWARE
AMENDED AND RESTATED
CERTIFICATE OF FORMATION
OF
MIAMI INTERNATIONAL TECHNOLOGIES, LLC

This filing has been executed and filed in accordance with Section 18-208 of the Limited Liability Company Act. This document is being executed for the purpose of amending and restating the original Certificate of Formation, filed under Miami International Technologies, LLC on May 12, 2010 under file number: 4812494

FIRST: The name of the limited liability company is **Miami International Technologies, LLC.**

SECOND: The address of the registered office of the Company is located at Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle, Zip Code 19801. The registered agent in charge thereof is The Corporation Trust Company.

THIRD: The members agree to be bound by the signed limited liability company agreements except as they may be contradicted by the Limited Liability Company Act of the State of Delaware.

FOURTH: The duration of this limited liability company will be perpetual.

IN WITNESS WHEREOF, the undersigned, an authorized person, has executed this Amended and Restated Certificate of Formation on this date of June 28, 2011.

MIAMI INTERNATIONAL TECHNOLOGIES, LLC

By: _____

Thomas P. Gallagher
Chairman

FIRST AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
of
MIAMI INTERNATIONAL TECHNOLOGIES, LLC

Miami International Holdings, Inc., a Delaware corporation, the sole member (the "Member") of Miami International Technologies, LLC, a Delaware limited liability company (the "Company"), pursuant to and in accordance with the Delaware Limited Liability Company Act, 6 Del.C. § 18-101, et seq. (the "Act"), hereby declares the following to be the First Amended and Restated Limited Liability Company Agreement (the "Agreement") of the Company which amends and restates in its entirety the Operating Agreement dated June 29, 2010 of the Company (the "Original Operating Agreement").

Section 1. **Formation**. The Company has been formed as a limited liability company under the Act by the filing of a Certificate of Formation with the Office of the Secretary of State of the State of Delaware. The Member agrees to be bound by and comply with the provisions thereof and hereof.

Section 2. **Name.** The name of the limited liability company shall be "Miami International Technologies, LLC", or such other name as the Member may from time to time hereafter designate.

Section 3. **Definitions.** Capitalized terms not otherwise defined herein shall have the meanings set forth therefor in Section 18-101 of the Act.

Section 4. **Purpose.** The Company is formed for the purpose of engaging in any lawful business permitted by the Act or the laws of any jurisdiction in which the Company may do business. The Company shall have the power to engage in all activities and transactions which the Member deems necessary or advisable in connection with the foregoing.

Section 5. **Offices.** The principal place of business and office of the Company shall be located at, and the Company's business shall be conducted from, such place or places as the Member may designate from time to time.

The registered office of the Company in the State of Delaware shall be located at c/o Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. The name and address of the registered agent of the Company for service of process on the Company in the State of Delaware shall be The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. The Member may from time to time change the registered agent or office by an amendment to the certificate of formation of the Company.

Section 6. **Member.** Miami International Holdings, Inc. is the sole member of the Company (the "Member") holding 100% of the membership interests of the Company. The name and business or residence address of the Member is 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540.

Section 7. **Term.** The term of the Company shall commence on the date of filing of the certificate of formation of the Company in accordance with the Act and shall continue until the Company is dissolved and its affairs are wound up in accordance with Section 17 of this Agreement and a certificate of cancellation is filed in accordance with the Act.

Section 8. **Board of Directors; Delegation of Authority and Duties.**

(a) Member and Board of Directors. The Member, acting through the Board (defined below), shall manage and control the business and affairs of the Company, and shall possess all rights and powers as provided in the Act and otherwise by law. Except as otherwise expressly provided for herein, the Member hereby consents to the exercise by the Board of all such powers and rights conferred on them by the Act with respect to the management and control of the Company. Notwithstanding the foregoing and except as explicitly set forth in this Agreement, if a vote, consent or approval of the Member is required by the Act or other applicable law with respect to any act to be taken by the Company or matter considered by the Board, the Member agrees that it shall be deemed to have consented to or approved such act or voted on such matter in accordance with a vote of the Board on such act or matter.

(b) Delegation by Board. The Board shall have the power and authority to delegate to one or more other persons the Board's rights and powers to manage and control the business and affairs of the Company, including to delegate to agents and employees of the Member, a Director (as defined below) or the Company (including Officers), and to delegate by a management agreement or another agreement with, or otherwise to, other persons. The Board may authorize any person (including, without limitation, the Member or any Officer or Director) to enter into and perform under any document on behalf of the Company.

(c) Committees. The Board may, from time to time, designate one or more committees, each of which shall be comprised of at least two Directors. Any such committee, to the extent provided in the enabling resolution and until dissolved by the Board, shall have and may exercise any or all of the authority of the Board. At every meeting of any such committee, the presence of a majority of all the representatives thereof shall constitute a quorum, and the affirmative vote of a majority of the representatives present shall be necessary for the adoption of any resolution. The Board may dissolve any committee at any time, unless otherwise provided in this Agreement.

Section 9. **Establishment of Board of Directors.**

(a) Directors. There shall be established a Board of Directors (the "Board") composed of not less than (1) and no more than fifteen (15) persons as determined from time to time by the Member ("Directors"), each of whom shall be elected by the Member. Any Director may be removed from the Board at any time by the Member. Each Director shall remain in office until his or her death, resignation or removal. In the event of death, resignation or removal of a Director, the party or parties, as applicable, which appointed such Director shall fill the vacancy created. Notwithstanding anything in this Agreement to the contrary, Directors shall not be deemed to be "members" or "managers" (as such terms are defined in the Act) of the Company.

(b) No Individual Authority. No Director has the authority or power to act for or on behalf of the Company, to do any act that would be binding on the Company or to make any expenditures or incur any obligations on behalf of the Company or authorize any of the foregoing, other than acts that are authorized by the Board.

(c) Chairman. The Board shall designate a Director to serve as chairman. The chairman shall, unless a majority of Directors present determine otherwise, preside at all meetings of the Board. If the chairman is absent at any meeting of the Board, a majority of the Directors present shall designate another Director to serve as interim chairman for that meeting.

Section 10. Officers. The Member may, from time to time as it deems advisable, designate natural persons as officers of the Company (the "Officers") or successor Officers of the Company and assign titles to any such person. Unless the Member decides otherwise, if the title is one commonly used for officers of a business corporation formed under the Delaware General Corporation Law, the assignment of such title shall constitute the delegation to such person of the authorities and duties that are normally associated with that office. Any delegation pursuant to this Section 8 may be revoked at any time by the Member. An Officer may be removed with or without cause at any time by the Member.

Section 11. Advisory Board. The Member may appoint any person or persons to act in an advisory capacity to the Company. Such a group shall be known as the Advisory Board.

Section 12. Capital Contributions. The Member shall make capital contributions to the Company from time to time, which amounts shall be set forth in the books and records of the Company.

Section 13. Transfers of Member Interest. The Member may sell, assign, pledge or otherwise transfer or encumber (collectively, a "Transfer") any of its Limited Liability Company Interest in the Company to any Person so long as such Transfer is in writing.

Section 14. Resignation. The Member shall have the right to resign from the Company so long as such resignation is in writing. The provisions hereof with respect to distributions upon resignation are exclusive and no Member shall be entitled to claim any further or different distribution upon resignation under Section 18-604 of the Act or otherwise.

Section 15. Allocations and Distributions. Distributions of cash or other assets of the Company shall be made at such times and in such amounts as the Member may determine. Distributions shall be made to (and profits and losses of the Company shall be allocated among) the Member.

Section 16. Return of Capital. The Member has the right to receive any distributions which include a return of all or any part of such Member's capital contribution, provided that upon the dissolution and winding up of the Company, the assets of the Company shall be distributed as provided in Section 18-804 of the Act.

Section 17. **Dissolution**. The Company shall be dissolved and its affairs wound up upon the occurrence of an event causing a dissolution of the Company under Section 18-801 of the Act, except the Company shall not be dissolved upon the occurrence of an event that terminates the continued membership of a Member if (i) at the time of the occurrence of such event there are at least two Members of the Company, or (ii) within ninety (90) days after the occurrence of such event, all remaining Members agree in writing to continue the business of the Company and to the appointment, effective as of the date of such event, of one or more additional Members. In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority set forth in Section 18-804 of the Act.

Section 18. **Amendments**. This Agreement may be amended only upon the written consent of the Member.

Section 19. **Other Business**. The Member may engage in or possess an interest in other business ventures of every kind and description, independently or with others. The Company shall not have any rights in or to such independent ventures or the income or profits therefrom by virtue of this Agreement.

Section 20. **Limited Liability**. The Member shall not have any liability for the debts, obligations or liabilities of the Company except to the extent provided by the Act.

Section 21. **Exculpation; Indemnification**. Neither the Member, the Officers nor any of their respective affiliates or agents (collectively, "Covered Persons") shall be liable to the Company or any other person or entity who has an interest in the Company for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement. To the fullest extent permitted by applicable law, each Covered Person shall be entitled to indemnification from the Company for any loss, damage or claim incurred by such Covered Person by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement; provided, however, that any indemnity under this Section 21 shall be provided out of and to the extent of Company assets only, and neither the Member nor the Officer, as applicable, nor any other Covered Person, shall have personal liability on account thereof.

Section 22. **Banking Matters**. The Member and each Officer and any agent or employee of the Company, or other person designated by such Member or Officer is hereby authorized and empowered (A) to (i) establish one or more domestic or international accounts (including but not limited to, depository, checking, disbursement, custodian, or investment accounts, and other accounts as deemed necessary or expeditious for business purposes of the Company) ("Accounts"), in the name of the Company with any bank, trust company, savings and loan institution, brokerage firm or other financial institution which said Member or Officer shall from time to time designate as a depository of funds, securities or other property of the

Company, for any purpose and on terms and conditions deemed appropriate by such person on behalf of the Company; and (ii) close Accounts of the Company now or hereafter established; and (B) to assign, limit or revoke any and all authority of any agent or employee of the Company, or other person designated by such Member or Officer to (i) sign checks, drafts and orders for the payment of money drawn on the Company's Accounts, and all notes of the Company and all acceptances and endorsements of the Company; (ii) execute or initiate electronic fund transfers; (iii) execute or initiate foreign currency exchange transactions; (iv) execute or initiate the investment of monies; and (v) initiate requests for information for any Account of the Company.

Section 23. **Amendment**. This Agreement may only be amended by a writing duly signed by the Member.

Section 24. **Governing Law**. This Agreement shall be governed by, and construed under, the laws of the State of Delaware, without regard to conflict of law rules.

IN WITNESS WHEREOF, the undersigned has duly executed this Agreement as of May 20, 2011.

MIAMI INTERNATIONAL HOLDINGS, INC.

By: _____
Thomas P. Gallagher
Chairman

E

State of Delaware
Secretary of State
Division of Corporations
Delivered 10:33 AM 06/30/2015
FILED 10:33 AM 06/30/2015
SRV 150990702 - 5776534 FILE

CERTIFICATE OF FORMATION

OF

MIAX GLOBAL, LLC

THIS IS TO CERTIFY that there is hereby formed a limited liability company under and by virtue of the Delaware Limited Liability Company Act (the "Act") (6 Del. C. §18-101, et seq.).

1. The name of the limited liability company is **MIAX Global, LLC** (the "Company").

2. The address of the registered office of the Company in the State of Delaware is 1209 Orange Street in the City of Wilmington, County of New Castle, and the name of the registered agent at such address for service of process is The Corporation Trust Company.

3. This Certificate shall be effective upon filing.

4. The duration of this limited liability company will be perpetual.

IN WITNESS WHEREOF, the undersigned, an authorized person, has signed this certificate this 30th day of June, 2015.

Barbara Comly

BARBARA COMLY
7 Roszel Road, Suite 5-A
Princeton, NJ 08540

LIMITED LIABILITY COMPANY AGREEMENT
OF
MIAX GLOBAL, LLC

The undersigned is executing this Limited Liability Company Agreement (the "Agreement") as of June 30, 2015 for the purpose of forming a limited liability company (the "Company") pursuant to the provisions of the Delaware Limited Liability Company Act, 6 Del. C. § 18-101 et seq., as amended from time to time (the "Act"), and does hereby agree as follows:

1. **Formation.** A certificate of formation of the Company (the "Certificate") was executed and filed with the Office of the Secretary of State of the State of Delaware on June 30, 2015.

2. **Name.** The name of the limited liability company shall be **"MIAX Global, LLC"**, or such other name as the Member may from time to time hereafter designate.

3. **Definitions.** Capitalized terms not otherwise defined herein shall have the meanings set forth therefor in Section 18-101 of the Act.

4. **Purpose.** The Company is formed for the purpose of engaging in any lawful business permitted by the Act or the laws of any jurisdiction in which the Company may do business. The Company shall have the power to engage in all activities and transactions which the Member deems necessary or advisable in connection with the foregoing.

5. **Offices.** The principal place of business and office of the Company shall be located at, and the Company's business shall be conducted from, such place or places as the Member may designate from time to time.

The registered office of the Company in the State of Delaware shall be located at c/o The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801. The name and address of the registered agent of the Company for service of process on the Company in the State of Delaware shall The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801. The Member may from time to time change the registered agent or office by an amendment to the certificate of formation of the Company.

6. **Member.** Miami International Holdings, Inc. is the sole member of the Company (the "Member") holding 100% of the membership interests of the Company. The name and business or residence address of the Member is 7 Roszel Road, Suite 5-A, Princeton, NJ 08504.

7. **Term.** The term of the Company shall commence on the date of filing of the certificate of formation of the Company in accordance with the Act and shall continue until the Company is dissolved and its affairs are wound up in accordance with Section 17 of this Agreement and a certificate of cancellation is filed in accordance with the Act.

8. **Board of Directors; Delegation of Authority and Duties.**

(a) Member and Board of Directors. The Member, acting through the Board (defined below), shall manage and control the business and affairs of the Company, and shall possess all rights and powers as provided in the Act and otherwise by law. Except as otherwise expressly provided for herein, the Member hereby consents to the exercise by the Board of all such powers and rights conferred on them by the Act with respect to the management and control of the Company. Notwithstanding the foregoing and except as explicitly set forth in this Agreement, if a vote, consent or approval of the Member is required by the Act or other applicable law with respect to any act to be taken by the Company or matter considered by the Board, the Member agrees that it shall be deemed to have consented to or approved such act or voted on such matter in accordance with a vote of the Board on such act or matter.

(b) Delegation by Board. The Board shall have the power and authority to delegate to one or more other persons the Board's rights and powers to manage and control the business and affairs of the Company, including to delegate to agents and employees of the Member, a Director (as defined below) or the Company (including Officers), and to delegate by a management agreement or another agreement with, or otherwise to, other persons. The Board may authorize any person (including, without limitation, the Member or any Officer or Director) to enter into and perform under any document on behalf of the Company.

(c) Committees. The Board may, from time to time, designate one or more committees, each of which shall be comprised of at least two Directors. Any such committee, to the extent provided in the enabling resolution and until dissolved by the Board, shall have and may exercise any or all of the authority of the Board. At every meeting of any such committee, the presence of a majority of all the representatives thereof shall constitute a quorum, and the affirmative vote of a majority of the representatives present shall be necessary for the adoption of any resolution. The Board may dissolve any committee at any time, unless otherwise provided in this Agreement.

9. **Establishment of Board of Directors.**

(a) Directors. There shall be established a Board of Directors (the "Board") composed of not less than (1) and no more than twenty-one (21) persons as determined from time to time by the Member ("Directors"), each of whom shall be elected by the Member. Any Director may be removed from the Board at any time by the Member. Each Director shall remain in office until his or her death, resignation or removal. In the event of death, resignation or removal of a Director, the party or parties, as applicable, which appointed such Director shall fill the vacancy created. Notwithstanding anything in this Agreement to the contrary, Directors shall not be deemed to be "members" or "managers" (as such terms are defined in the Act) of the Company.

(b) No Individual Authority. No Director has the authority or power to act for or on behalf of the Company, to do any act that would be binding on the Company or to make any expenditures or incur any obligations on behalf of the Company or authorize any of the foregoing, other than acts that are authorized by the Board.

(c) Chairman. The Board shall designate a Director to serve as chairman. The chairman shall, unless a majority of Directors present determine otherwise, preside at all meetings of the Board. If the chairman is absent at any meeting of the Board, a majority of the Directors present shall designate another Director to serve as interim chairman for that meeting.

10. **Officers.** The Member may, from time to time as it deems advisable, designate natural persons as officers of the Company (the "Officers") or successor Officers of the Company and assign titles to any such person. Unless the Member decides otherwise, if the title is one commonly used for officers of a business corporation formed under the Delaware General Corporation Law, the assignment of such title shall constitute the delegation to such person of the authorities and duties that are normally associated with that office. Any delegation pursuant to this Section 8 may be revoked at any time by the Member. An Officer may be removed with or without cause at any time by the Member.

11. **Advisory Board.** The Member may appoint any person or persons to act in an advisory capacity to the Company. Such a group shall be known as the Advisory Board.

12. **Capital Contributions**. The Member shall make capital contributions to the Company from time to time, which amounts shall be set forth in the books and records of the Company.

13. **Transfers of Member Interest.** The Member may sell, assign, pledge or otherwise transfer or encumber (collectively, a "Transfer") any of its Limited Liability Company Interest in the Company to any Person so long as such Transfer is in writing.

14. **Resignation**. The Member shall have the right to resign from the Company so long as such resignation is in writing. The provisions hereof with respect to distributions upon resignation are exclusive and no Member shall be entitled to claim any further or different distribution upon resignation under Section 18-604 of the Act or otherwise.

15. **Allocations and Distributions.** Distributions of cash or other assets of the Company shall be made at such times and in such amounts as the Member may determine. Distributions shall be made to (and profits and losses of the Company shall be allocated among) the Member.

16. **Return of Capital**. The Member has the right to receive any distributions which include a return of all or any part of such Member's capital contribution, provided that upon the dissolution and winding up of the Company, the assets of the Company shall be distributed as provided in Section 18-804 of the Act.

17. **Dissolution**. The Company shall be dissolved and its affairs wound up upon the occurrence of an event causing a dissolution of the Company under Section 18-801 of the Act, except the Company shall not be dissolved upon the occurrence of an event that terminates the continued membership of a Member if (i) at the time of the occurrence of such event there are at least two Members of the Company, or (ii) within ninety (90) days after the occurrence of such

event, all remaining Members agree in writing to continue the business of the Company and to the appointment, effective as of the date of such event, of one or more additional Members. In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority set forth in Section 18-804 of the Act.

18. **Amendments**. This Agreement may be amended only upon the written consent of the Member.

19. **Other Business**. The Member may engage in or possess an interest in other business ventures of every kind and description, independently or with others. The Company shall not have any rights in or to such independent ventures or the income or profits therefrom by virtue of this Agreement.

20. **Limited Liability**. The Member shall not have any liability for the debts, obligations or liabilities of the Company except to the extent provided by the Act.

21. **Exculpation; Indemnification**. Neither the Member, the Officers nor any of their respective affiliates or agents (collectively, "Covered Persons") shall be liable to the Company or any other person or entity who has an interest in the Company for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement. To the fullest extent permitted by applicable law, each Covered Person shall be entitled to indemnification from the Company for any loss, damage or claim incurred by such Covered Person by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement; provided, however, that any indemnity under this Section 21 shall be provided out of and to the extent of Company assets only, and neither the Member nor the Officer, as applicable, nor any other Covered Person, shall have personal liability on account thereof.

22. **Banking Matters**. The Member and each Officer and any agent or employee of the Company, or other person designated by such Member or Officer is hereby authorized and empowered (A) to (i) establish one or more domestic or international accounts (including but not limited to, depository, checking, disbursement, custodian, or investment accounts, and other accounts as deemed necessary or expeditious for business purposes of the Company) ("Accounts"), in the name of the Company with any bank, trust company, savings and loan institution, brokerage firm or other financial institution which said Member or Officer shall from time to time designate as a depository of funds, securities or other property of the Company, for any purpose and on terms and conditions deemed appropriate by such person on behalf of the Company; and (ii) close Accounts of the Company now or hereafter established; and (B) to assign, limit or revoke any and all authority of any agent or employee of the Company, or other person designated by such Member or Officer to (i) sign checks, drafts and orders for the payment of money drawn on the Company's Accounts, and all notes of the Company and all

acceptances and endorsements of the Company; (ii) execute or initiate electronic fund transfers; (iii) execute or initiate foreign currency exchange transactions; (iv) execute or initiate the investment of monies; and (v) initiate requests for information for any Account of the Company.

23. **Authorized Person**. Delaware Business Incorporators, Inc. is hereby designated as an "authorized person" within the meaning of the Act, and has executed, delivered and filed the Certificate with the Secretary of State of the State of Delaware. Upon the filing of the Certificate with the Secretary of State of Delaware, Delaware Business Incorporators, Inc.'s powers as an "authorized person" ceased.

24. **Amendment**. This Agreement may only be amended by a writing duly signed by the Member.

25. **Governing Law**. This Agreement shall be governed by, and construed under, the laws of the State of Delaware, without regard to conflict of law rules.

IN WITNESS WHEREOF, the undersigned has duly executed this Agreement as of the date first written above.

MIAMI INTERNATIONAL HOLDINGS, INC.

By: Thomas P. Gallagher

THOMAS P. GALLAGHER
Chairman and Chief Executive Officer
7 Roszel Road, Suite 5-A
Princeton, NJ 08540

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State of Delaware
Secretary of State
Division of Corporations
Delivered 12:35 PM 06/17/2011
FILED 12:35 PM 06/17/2011
SRV 110734855 - 4465980 FILE

STATE OF DELAWARE
AMENDED AND RESTATED
CERTIFICATE OF FORMATION
OF
MIAMI INTERNATIONAL FUTURES EXCHANGE, LLC

This filing has been executed and filed in accordance with Section 18-208 of the Limited Liability Company Act. This document is being executed for the purpose of amending and restating the original Certificate of Formation, filed under Miami Board of Trade, LLC on November 30, 2007, as amended by the Certificate of Amendment, filed on April 14, 2010 under file number: 4465980.

FIRST: The name of the limited liability company is **Miami International Futures Exchange, LLC.**

SECOND: The address of the registered office of the Company is located at Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle, Zip Code 19801. The registered agent in charge thereof is The Corporation Trust Company.

THIRD: The members agree to be bound by the signed limited liability company agreements except as they may be contradicted by the Limited Liability Company Act of the State of Delaware.

FOURTH: The duration of this limited liability company will be perpetual.

IN WITNESS WHEREOF, the undersigned, an authorized person, has executed this Amended and Restated Certificate of Formation on this date of June 17, 2011.

MIAMI INTERNATIONAL FUTURES EXCHANGE, LLC

By: _____

Thomas P. Gallagher
Chairman

FIRST AMENDED AND RESTATED
LIMITED LIABILITY COMPANY AGREEMENT
of
MIAMI INTERNATIONAL FUTURES EXCHANGE, LLC

Miami International Holdings, Inc., a Delaware corporation, the sole member (the "Member") of Miami International Futures Exchange, LLC, a Delaware limited liability company (the "Company"), pursuant to and in accordance with the Delaware Limited Liability Company Act, 6 Del.C. § 18-101, et seq. (the "Act"), hereby declares the following to be the First Amended and Restated Limited Liability Company Agreement (the "Agreement") of the Company which amends and restates in its entirety the Operating Agreement dated February 1, 2008 of the Company (the "Original Operating Agreement").

Section 1. **Formation**. The Company has been formed as a limited liability company under the Act by the filing of a Certificate of Formation with the Office of the Secretary of State of the State of Delaware. The Member agrees to be bound by and comply with the provisions thereof and hereof.

Section 2. **Name.** The name of the limited liability company shall be "Miami Board of Trade, LLC", or such other name as the Member may from time to time hereafter designate.

Section 3. **Definitions.** Capitalized terms not otherwise defined herein shall have the meanings set forth therefor in Section 18-101 of the Act.

Section 4. **Purpose.** The Company is formed for the purpose of engaging in any lawful business permitted by the Act or the laws of any jurisdiction in which the Company may do business. The Company shall have the power to engage in all activities and transactions which the Member deems necessary or advisable in connection with the foregoing.

Section 5. **Offices.** The principal place of business and office of the Company shall be located at, and the Company's business shall be conducted from, such place or places as the Member may designate from time to time.

The registered office of the Company in the State of Delaware shall be located at c/o The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. The name and address of the registered agent of the Company for service of process on the Company in the State of Delaware shall be The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801. The Member may from time to time change the registered agent or office by an amendment to the certificate of formation of the Company.

Section 6. **Member.** Miami International Holdings, Inc. is the sole member of the Company (the "Member") holding 100% of the membership interests of the Company. The name and business or residence address of the Member is 7 Roszel Road, 5th Floor, Princeton, New Jersey 08540.

Section 7. **Term.** The term of the Company shall commence on the date of filing of the certificate of formation of the Company in accordance with the Act and shall continue until the Company is dissolved and its affairs are wound up in accordance with Section 17 of this Agreement and a certificate of cancellation is filed in accordance with the Act.

Section 8. **Board of Directors; Delegation of Authority and Duties.**

(a) Member and Board of Directors. The Member, acting through the Board (defined below), shall manage and control the business and affairs of the Company, and shall possess all rights and powers as provided in the Act and otherwise by law. Except as otherwise expressly provided for herein, the Member hereby consents to the exercise by the Board of all such powers and rights conferred on them by the Act with respect to the management and control of the Company. Notwithstanding the foregoing and except as explicitly set forth in this Agreement, if a vote, consent or approval of the Member is required by the Act or other applicable law with respect to any act to be taken by the Company or matter considered by the Board, the Member agrees that it shall be deemed to have consented to or approved such act or voted on such matter in accordance with a vote of the Board on such act or matter.

(b) Delegation by Board. The Board shall have the power and authority to delegate to one or more other persons the Board's rights and powers to manage and control the business and affairs of the Company, including to delegate to agents and employees of the Member, a Director (as defined below) or the Company (including Officers), and to delegate by a management agreement or another agreement with, or otherwise to, other persons. The Board may authorize any person (including, without limitation, the Member or any Officer or Director) to enter into and perform under any document on behalf of the Company.

(c) Committees. The Board may, from time to time, designate one or more committees, each of which shall be comprised of at least two Directors. Any such committee, to the extent provided in the enabling resolution and until dissolved by the Board, shall have and may exercise any or all of the authority of the Board. At every meeting of any such committee, the presence of a majority of all the representatives thereof shall constitute a quorum, and the affirmative vote of a majority of the representatives present shall be necessary for the adoption of any resolution. The Board may dissolve any committee at any time, unless otherwise provided in this Agreement.

Section 9. **Establishment of Board of Directors.**

(a) Directors. There shall be established a Board of Directors (the "Board") composed of not less than (1) and no more than twenty-one (21) persons as determined from time to time by the Member ("Directors"), each of whom shall be elected by the Member. Any Director may be removed from the Board at any time by the Member. Each Director shall remain in office until his or her death, resignation or removal. In the event of death, resignation or removal of a Director, the party or parties, as applicable, which appointed such Director shall fill the vacancy created. Notwithstanding anything in this Agreement to the contrary, Directors shall

not be deemed to be "members" or "managers" (as such terms are defined in the Act) of the Company.

(b) No Individual Authority. No Director has the authority or power to act for or on behalf of the Company, to do any act that would be binding on the Company or to make any expenditures or incur any obligations on behalf of the Company or authorize any of the foregoing, other than acts that are authorized by the Board.

(c) Chairman. The Board shall designate a Director to serve as chairman. The chairman shall, unless a majority of Directors present determine otherwise, preside at all meetings of the Board. If the chairman is absent at any meeting of the Board, a majority of the Directors present shall designate another Director to serve as interim chairman for that meeting.

Section 10. Officers. The Member may, from time to time as it deems advisable, designate natural persons as officers of the Company (the "Officers") or successor Officers of the Company and assign titles to any such person. Unless the Member decides otherwise, if the title is one commonly used for officers of a business corporation formed under the Delaware General Corporation Law, the assignment of such title shall constitute the delegation to such person of the authorities and duties that are normally associated with that office. Any delegation pursuant to this Section 10 may be revoked at any time by the Member. An Officer may be removed with or without cause at any time by the Member.

Section 11. Advisory Board. The Member may appoint any person or persons to act in an advisory capacity to the Company. Such a group shall be known as the Advisory Board.

Section 12. Capital Contributions. The Member shall make capital contributions to the Company from time to time, which amounts shall be set forth in the books and records of the Company.

Section 13. Transfers of Member Interest. The Member may sell, assign, pledge or otherwise transfer or encumber (collectively, a "Transfer") any of its Limited Liability Company Interest in the Company to any Person so long as such Transfer is in writing.

Section 14. Resignation. The Member shall have the right to resign from the Company so long as such resignation is in writing. The provisions hereof with respect to distributions upon resignation are exclusive and no Member shall be entitled to claim any further or different distribution upon resignation under Section 18-604 of the Act or otherwise.

Section 15. Allocations and Distributions. Distributions of cash or other assets of the Company shall be made at such times and in such amounts as the Member may determine. Distributions shall be made to (and profits and losses of the Company shall be allocated among) the Member.

Section 16. Return of Capital. The Member has the right to receive any distributions which include a return of all or any part of such Member's capital contribution, provided that

upon the dissolution and winding up of the Company, the assets of the Company shall be distributed as provided in Section 18-804 of the Act.

Section 17. **Dissolution**. The Company shall be dissolved and its affairs wound up upon the occurrence of an event causing a dissolution of the Company under Section 18-801 of the Act, except the Company shall not be dissolved upon the occurrence of an event that terminates the continued membership of a Member if (i) at the time of the occurrence of such event there are at least two Members of the Company, or (ii) within ninety (90) days after the occurrence of such event, all remaining Members agree in writing to continue the business of the Company and to the appointment, effective as of the date of such event, of one or more additional Members. In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority set forth in Section 18-804 of the Act.

Section 18. **Amendments**. This Agreement may be amended only upon the written consent of the Member.

Section 19. **Other Business**. The Member may engage in or possess an interest in other business ventures of every kind and description, independently or with others. The Company shall not have any rights in or to such independent ventures or the income or profits therefrom by virtue of this Agreement.

Section 20. **Limited Liability**. The Member shall not have any liability for the debts, obligations or liabilities of the Company except to the extent provided by the Act.

Section 21. **Exculpation; Indemnification**. Neither the Member, the Officers nor any of their respective affiliates or agents (collectively, "Covered Persons") shall be liable to the Company or any other person or entity who has an interest in the Company for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement. To the fullest extent permitted by applicable law, each Covered Person shall be entitled to indemnification from the Company for any loss, damage or claim incurred by such Covered Person by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement; provided, however, that any indemnity under this Section 21 shall be provided out of and to the extent of Company assets only, and neither the Member nor the Officer, as applicable, nor any other Covered Person, shall have personal liability on account thereof.

Section 22. **Banking Matters**. The Member and each Officer and any agent or employee of the Company, or other person designated by such Member or Officer is hereby authorized and empowered (A) to (i) establish one or more domestic or international accounts (including but not limited to, depository, checking, disbursement, custodian, or investment accounts, and other accounts as deemed necessary or expeditious for business purposes of the

Company) ("Accounts"), in the name of the Company with any bank, trust company, savings and loan institution, brokerage firm or other financial institution which said Member or Officer shall from time to time designate as a depository of funds, securities or other property of the Company, for any purpose and on terms and conditions deemed appropriate by such person on behalf of the Company; and (ii) close Accounts of the Company now or hereafter established; and (B) to assign, limit or revoke any and all authority of any agent or employee of the Company, or other person designated by such Member or Officer to (i) sign checks, drafts and orders for the payment of money drawn on the Company's Accounts, and all notes of the Company and all acceptances and endorsements of the Company; (ii) execute or initiate electronic fund transfers; (iii) execute or initiate foreign currency exchange transactions; (iv) execute or initiate the investment of monies; and (v) initiate requests for information for any Account of the Company.

Section 23. **Amendment**. This Agreement may only be amended by a writing duly signed by the Member.

Section 24. **Governing Law**. This Agreement shall be governed by, and construed under, the laws of the State of Delaware, without regard to conflict of law rules.

IN WITNESS WHEREOF, the undersigned has duly executed this Agreement as of May 20, 2011.

MIAMI INTERNATIONAL HOLDINGS, INC.

By: _____
Thomas P. Gallagher
Chairman

G

Form **LLC-5.5**	**Illinois** **Limited Liability Company Act** **Articles of Organization**	**FILE # 07506945**
Secretary of State Jesse White Department of Business Services Limited Liability Division www.cyberdriveillinois.com	**Filing Fee:** $150 **Approved By:** TLB	**FILED** **JAN 25 2019** **Jesse White** **Secretary of State**

1. Limited Liability Company Name: MIAX PRODUCTS, LLC

2. Address of Principal Place of Business where records of the company will be kept:
   7 ROSZEL ROAD, SUITE 5-A

   PRINCETON, NJ 08540

3. The Limited Liability Company has one or more members on the filing date.

4. Registered Agent's Name and Registered Office Address:

   CT CORPORATION SYSTEM
   208 S LA SALLE ST STE 814
   CHICAGO, IL 60604-1135

5. Purpose for which the Limited Liability Company is organized:
   "The transaction of any or all lawful business for which Limited Liability Companies may be organized under this Act."

6. The LLC is to have perpetual existence.

7. Name and business addresses of all the managers and any member having the authority of manager:

   MIAMI INTERNATIONAL HOLDINGS, INC.
   7 ROSZEL ROAD, SUITE 5-A
   PRINCETON, NJ 08540

8. **Name and Address of Organizer**
   I affirm, under penalties of perjury, having authority to sign hereto, that these Articles of Organization are to the best of my knowledge and belief, true, correct and complete.

   Dated: JANUARY 25, 2019

   BARBARA J. COMLY
   7 ROSZEL ROAD, SUITE 5-A
   PRINCETON, NJ 08540

This document was generated electronically at www.cyberdriveillinois.com

LIMITED LIABILITY COMPANY AGREEMENT
OF
MIAX PRODUCTS, LLC

The undersigned is executing this Limited Liability Company Agreement (the "Agreement") as of January 25, 2019, for the purpose of forming a limited liability company (the "Company") pursuant to the provisions of the Illinois Limited Liability Company Act, 805 ILCS 180/, as amended from time to time (the "Act"), and does hereby agree as follows:

1. **Formation.** A certificate of formation of the Company (the "Certificate") was executed and filed with the Office of the Secretary of State of the State of Illinois on January 25, 2019.

2. **Name.** The name of the limited liability company shall be **"MIAX Products, LLC"**, or such other name as the Member may from time to time hereafter designate.

3. **Definitions.** Capitalized terms not otherwise defined herein shall have the meanings set forth therefor in Section 1-5 of the Act.

4. **Purpose.** The Company is formed for the purpose of engaging in any lawful business permitted by the Act or the laws of any jurisdiction in which the Company may do business. The Company shall have the power to engage in all activities and transactions which the Member deems necessary or advisable in connection with the foregoing.

5. **Offices.** The principal place of business and office of the Company shall be located at, and the Company's business shall be conducted from, such place or places as the Member may designate from time to time.

The registered office of the Company in the State of Illinois shall be located at c/o CT Corporation System, 208 South LaSalle Street, Suite 814, Chicago, IL 60604. The name and address of the registered agent of the Company for service of process on the Company in the State of Illinois shall be CT Corporation System, 208 South LaSalle Street, Suite 814, Chicago, IL 60604. The Member may from time to time change the registered agent or office by an amendment to the certificate of formation of the Company.

6. **Member.** Miami International Holdings, Inc. is the sole member of the Company (the "Member") holding 100% of the membership interests of the Company. The name and business or residence address of the Member is 7 Roszel Road, Suite 5-A, Princeton, NJ 08504.

7. **Term.** The term of the Company shall commence on the date of filing of the certificate of formation of the Company in accordance with the Act and shall continue until the Company is dissolved and its affairs are wound up in accordance with Section 17 of this Agreement and a certificate of cancellation is filed in accordance with the Act.

8. **Board of Directors; Delegation of Authority and Duties.**

(a) Member and Board of Directors. The Member, acting through the Board (defined below), shall manage and control the business and affairs of the Company, and shall possess all rights and powers as provided in the Act and otherwise by law. Except as otherwise expressly provided for herein, the Member hereby consents to the exercise by the Board of all such powers and rights conferred on them by the Act with respect to the management and control of the Company. Notwithstanding the foregoing and except as explicitly set forth in this Agreement, if a vote, consent or approval of the Member is required by the Act or other applicable law with respect to any act to be taken by the Company or matter considered by the Board, the Member agrees that it shall be deemed to have consented to or approved such act or voted on such matter in accordance with a vote of the Board on such act or matter.

(b) Delegation by Board. The Board shall have the power and authority to delegate to one or more other persons the Board's rights and powers to manage and control the business and affairs of the Company, including to delegate to agents and employees of the Member, a Director (as defined below) or the Company (including Officers), and to delegate by a management agreement or another agreement with, or otherwise to, other persons. The Board may authorize any person (including, without limitation, the Member or any Officer or Director) to enter into and perform under any document on behalf of the Company.

(c) Committees. The Board may, from time to time, designate one or more committees, each of which shall be comprised of at least two Directors. Any such committee, to the extent provided in the enabling resolution and until dissolved by the Board, shall have and may exercise any or all of the authority of the Board. At every meeting of any such committee, the presence of a majority of all the representatives thereof shall constitute a quorum, and the affirmative vote of a majority of the representatives present shall be necessary for the adoption of any resolution. The Board may dissolve any committee at any time, unless otherwise provided in this Agreement.

9. **Establishment of Board of Directors.**

(a) Directors. There shall be established a Board of Directors (the "Board") composed of not less than (1) and no more than twenty-one (21) persons as determined from time to time by the Member ("Directors"), each of whom shall be elected by the Member. Any Director may be removed from the Board at any time by the Member. Each Director shall remain in office until his or her death, resignation or removal. In the event of death, resignation or removal of a Director, the party or parties, as applicable, which appointed such Director shall fill the vacancy created. Notwithstanding anything in this Agreement to the contrary, Directors shall not be deemed to be "members" or "managers" (as such terms are defined in the Act) of the Company.

(b) No Individual Authority. No Director has the authority or power to act for or on behalf of the Company, to do any act that would be binding on the Company or to make any expenditures or incur any obligations on behalf of the Company or authorize any of the foregoing, other than acts that are authorized by the Board.

(c) Chairman. The Board shall designate a Director to serve as chairman. The chairman shall, unless a majority of Directors present determine otherwise, preside at all meetings of the Board. If the chairman is absent at any meeting of the Board, a majority of the Directors present shall designate another Director to serve as interim chairman for that meeting.

10. **Officers.** The Member may, from time to time as it deems advisable, designate natural persons as officers of the Company (the "Officers") or successor Officers of the Company and assign titles to any such person. Unless the Member decides otherwise, if the title is one commonly used for officers of a business corporation formed under the Illinois Business Corporation Act, the assignment of such title shall constitute the delegation to such person of the authorities and duties that are normally associated with that office. Any delegation pursuant to this Section 10 may be revoked at any time by the Member. An Officer may be removed with or without cause at any time by the Member.

11. **Advisory Board.** The Member may appoint any person or persons to act in an advisory capacity to the Company. Such a group shall be known as the Advisory Board.

12. **Capital Contributions**. The Member shall make capital contributions to the Company from time to time, which amounts shall be set forth in the books and records of the Company.

13. **Transfers of Member Interest.** The Member may sell, assign, pledge or otherwise transfer or encumber (collectively, a "Transfer") any of its Limited Liability Company Interest in the Company to any Person so long as such Transfer is in writing.

14. **Resignation**. The Member shall have the right to resign from the Company so long as such resignation is in writing. The provisions hereof with respect to distributions upon resignation are exclusive and no Member shall be entitled to claim any further or different distribution upon resignation under the Act or otherwise.

15. **Allocations and Distributions.** Distributions of cash or other assets of the Company shall be made at such times and in such amounts as the Member may determine. Distributions shall be made to (and profits and losses of the Company shall be allocated among) the Member.

16. **Return of Capital**. The Member has the right to receive any distributions which include a return of all or any part of such Member's capital contribution, provided that upon the dissolution and winding up of the Company, the assets of the Company shall be distributed as provided in the Act.

17. **Dissolution**. The Company shall be dissolved and its affairs wound up upon the occurrence of an event causing a dissolution of the Company under the Act, except the Company shall not be dissolved upon the occurrence of an event that terminates the continued membership of a Member if (i) at the time of the occurrence of such event there are at least two Members of the Company, or (ii) within ninety (90) days after the occurrence of such event, all remaining Members agree in writing to continue the business of the Company and to the appointment,

effective as of the date of such event, of one or more additional Members. In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority set forth in the Act.

18. **Amendments**. This Agreement may be amended only upon the written consent of the Member.

19. **Other Business**. The Member may engage in or possess an interest in other business ventures of every kind and description, independently or with others. The Company shall not have any rights in or to such independent ventures or the income or profits therefrom by virtue of this Agreement.

20. **Limited Liability**. The Member shall not have any liability for the debts, obligations or liabilities of the Company except to the extent provided by the Act.

21. **Exculpation; Indemnification**. Neither the Member, the Officers nor any of their respective affiliates or agents (collectively, "Covered Persons") shall be liable to the Company or any other person or entity who has an interest in the Company for any loss, damage or claim incurred by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement. To the fullest extent permitted by applicable law, each Covered Person shall be entitled to indemnification from the Company for any loss, damage or claim incurred by such Covered Person by reason of any act or omission performed or omitted by such Covered Person in good faith on behalf of the Company and in a manner reasonably believed to be within the scope of the authority conferred on such Member or Officer, as applicable, by this Agreement; provided, however, that any indemnity under this Section 21 shall be provided out of and to the extent of Company assets only, and neither the Member nor the Officer, as applicable, nor any other Covered Person, shall have personal liability on account thereof.

22. **Banking Matters**. The Member and each Officer and any agent or employee of the Company, or other person designated by such Member or Officer is hereby authorized and empowered (A) to (i) establish one or more domestic or international accounts (including but not limited to, depository, checking, disbursement, custodian, or investment accounts, and other accounts as deemed necessary or expeditious for business purposes of the Company) ("Accounts"), in the name of the Company with any bank, trust company, savings and loan institution, brokerage firm or other financial institution which said Member or Officer shall from time to time designate as a depository of funds, securities or other property of the Company, for any purpose and on terms and conditions deemed appropriate by such person on behalf of the Company; and (ii) close Accounts of the Company now or hereafter established; and (B) to assign, limit or revoke any and all authority of any agent or employee of the Company, or other person designated by such Member or Officer to (i) sign checks, drafts and orders for the payment of money drawn on the Company's Accounts, and all notes of the Company and all acceptances and endorsements of the Company; (ii) execute or initiate electronic fund transfers; (iii) execute or initiate foreign currency

exchange transactions; (iv) execute or initiate the investment of monies; and (v) initiate requests for information for any Account of the Company.

23. **Amendment**. This Agreement may only be amended by a writing duly signed by the Member.

24. **Governing Law**. This Agreement shall be governed by, and construed under, the laws of the State of Illinois, without regard to conflict of law rules.

IN WITNESS WHEREOF, the undersigned has duly executed this Agreement as of the date first written above.

MIAMI INTERNATIONAL HOLDINGS, INC.

By: _____

THOMAS P. GALLAGHER
Chairman and Chief Executive Officer
7 Roszel Road, Suite 5-A
Princeton, NJ 08540

Exhibit J

EXHIBIT J

Exhibit Request:

A list of the officers, governors, members of all standing committees, or persons performing similar functions, who presently hold or have held their offices or positions during the previous year, indicating the following for each:

1. **Name.**

2. **Title.**

3. **Dates of commencement and termination of term of office or position.**

4. **Type of business in which each is primarily engaged (e.g., floor broker, specialist, odd lot dealer, etc.).**

Response:

1. **Officers of MIAX Emerald, LLC**

The following persons are the officers of the Exchange:

Name	Title
Thomas P. Gallagher	Chairman and Chief Executive Officer
Douglas M. Schafer, Jr.	Chief Information Officer and Executive Vice President
Barbara Comly	Executive Vice President, General Counsel and Corporate Secretary
Paul Warner	Executive Vice President and Chief Financial Officer
Edward Deitzel	Executive Vice President, Chief Regulatory Officer and Chief Compliance Officer
Shelly Brown	Executive Vice President – Strategic Planning and Business Development
John Smollen	Executive Vice President – Head of Exchange Traded Products and Strategic Relations
Randy Foster	Senior Vice President – Business Systems Development
Harish Jayabalan	Senior Vice President – Chief Risk Officer & Chief Information Security Officer
Matthew Rotella	Senior Vice President – Chief Technology Officer
Joseph W. Ferraro III	Senior Vice President – Deputy General Counsel
Deborah Carroll	Senior Vice President, Associate General Counsel and Assistant Corporate Secretary
Richard Ross	Senior Vice President of Exchange Traded Products

Name	Title
Joseph S. Bracco	Senior Vice President – Head of Sales
Amy Neiley	Senior Vice President – Trading Operations and Listings
Roli Bhotika	Vice President – Head of Business Development
Rodney Hester	Vice President – Systems Infrastructure
Shawn Hughes	Vice President – Project Management
Lawrence O'Leary	Vice President – Market Surveillance
Laurence Gardner	Vice President – Regulatory Operations
James O'Neil	Vice President and Director of Physical Security and Safety
Vinay Rao	Vice President – Trading Systems Development
Siddharth Sahoo	Vice President – Trading Systems Development
Tia Toms	Vice President – Administration
Kelly Fitzgerald	Assistant Vice President – Controller
Christopher Solgan	Assistant Vice President – Senior Counsel
Gregory Ziegler	Assistant Vice President – Senior Associate Counsel

The officers of the Exchange serve until their successors are appointed in accordance with the By-Laws of the Exchange. Officers of the Exchange serve at the direction of the Board of Directors.

2. **Directors of MIAX Emerald, LLC**

The following persons are the directors of the Exchange as of March 20, 2019:

Name	Classification	Term of Office	Type of Business
Thomas P. Gallagher	Industry	So long as CEO of the Company	Securities Exchange
Kurt M. Eckert	Industry/Member Representative	Class I - 2020	Partner – Wolverine Trading, LLC
Kimberly M. Guadagno	Non-Industry/ Independent	Class I – 2020	Law Firm Partner – Connell Foley LLP; Former NJ Lt. Governor and Secretary of State
Robert D. Prunetti	Non-Industry/ Independent	Class I – 2020	President – Phoenix Ventures, LLC
Lindsay L. Burbage	Non-Industry/ Independent	Class II - 2021	Attorney

Name	Classification	Term of Office	Type of Business
Paul Jiganti	Industry/Member Representative	Class II – 2021	Managing Director Options Business Development – IMC Financial Markets
John E. McCormac	Non-Industry/ Independent	Class II – 2021	Township Mayor – Woodbridge, New Jersey; Former New Jersey State Treasurer
Marianne Deane	Non-Industry/ Independent	Class III - 2022	Community Volunteer
Leslie Florio	Non-Industry/ Independent	Class III – 2022	Board of Trustees – The Hun School of Princeton; President – Maxwell Place Condominium Association
Joseph M. Kyrillos, Jr.	Non-Industry/ Independent	Class III - 2022	Director of Newport Capital Group; Former NJ Senator, 13th District

3. **Committees of MIAX Emerald, LLC**

The standing committees of the Board and the persons appointed to sit on the standing committees are as follows:

AUDIT COMMITTEE	
Name	**Classification**
Robert D. Prunetti (Chair)	Non-Industry/Independent
Joseph M. Kyrillos Jr.	Non-Industry/Independent
John E. McCormac	Non-Industry/Independent

COMPENSATION COMMITTEE	
Name	**Classification**
Robert D. Prunetti (Chair)	Non-Industry/Independent
Marianne Deane	Non-Industry/Independent
Joseph M. Kyrillos Jr.	Non-Industry/Independent

REGULATORY OVERSIGHT COMMITTEE	
Name	**Classification**
Lindsay L. Burbage (Chair)	Non-Industry/Independent
Leslie Florio	Non-Industry/Independent
Kimberly M. Guadagno	Non-Industry/Independent

APPEALS COMMITTEE	
Name	**Classification**
Marianne Deane (Chair)	Non-Industry/Independent
Kurt M. Eckert	Industry/Member Representative
Paul Jiganti	Industry/Member Representative

TECHNOLOGY COMMITTEE	
Name	**Classification**
Leslie Florio (Chair)	Non-Industry/Independent
Marianne Deane	Non-Industry/Independent
John E. McCormac	Non-Industry/Independent