

Required fields are shown with yellow backgrounds and asterisks.

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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
Form 19b-4

File No. * SR 2024 - * 27

Amendment No. (req. for Amendments *)

Filing by MIAX Emerald, LLC

Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934

Initial * <input checked="" type="checkbox"/>	Amendment * <input type="checkbox"/>	Withdrawal <input type="checkbox"/>	Section 19(b)(2) * <input type="checkbox"/>	Section 19(b)(3)(A) * <input checked="" type="checkbox"/>	Section 19(b)(3)(B) * <input type="checkbox"/>
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Pilot <input type="checkbox"/>	Extension of Time Period for Commission Action * <input type="checkbox"/>	Date Expires * <input type="text"/>
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Rule

<input type="checkbox"/> 19b-4(f)(1)	<input type="checkbox"/> 19b-4(f)(4)
<input checked="" type="checkbox"/> 19b-4(f)(2)	<input type="checkbox"/> 19b-4(f)(5)
<input type="checkbox"/> 19b-4(f)(3)	<input type="checkbox"/> 19b-4(f)(6)

Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010
Section 806(e)(1) *

Section 806(e)(2) *

Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934
Section 3C(b)(2) *

Exhibit 2 Sent As Paper Document

Exhibit 3 Sent As Paper Document

Description

Provide a brief description of the action (limit 250 characters, required when Initial is checked *).

Proposal to amend the Fee Schedule to establish a fee for market participants that choose to utilize the testing systems environment via a dedicated cross connection.

Contact Information

Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.

First Name * Michael Last Name * Slade

Title * AVP, Associate Counsel

E-mail * mslade@miaxglobal.com

Telephone * (609) 955-0460 Fax

Signature

Pursuant to the requirements of the Securities Exchange of 1934, MIAX Emerald, LLC has duty caused this filing to be signed on its behalf by the undersigned thereunto duty authorized.

Date 11/29/2024

(Title *)

By Michael Slade

AVP, Associate Counsel

(Name *)

NOTE: Clicking the signature block at right will initiate digitally signing the form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.

Michael Slade Date: 2024.11.26 16:35:42 -05'00'

Required fields are shown with yellow backgrounds and astericks.

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EDFS website.

Form 19b-4 Information *

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SR-EMERALD-2024-27 - 19b4 FINAL

The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

Exhibit 1 - Notice of Proposed Rule Change *

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SR-EMERALD-2024-27 - Exhibit 1.doc

The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

Exhibit 1A - Notice of Proposed Rule Change, Security-Based Swap Submission, or Advanced Notice by Clearing Agencies *

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

Exhibit 2- Notices, Written Comments, Transcripts, Other Communications

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Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

Exhibit Sent As Paper Document

Exhibit 3 - Form, Report, or Questionnaire

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Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

Exhibit Sent As Paper Document

Exhibit 4 - Marked Copies

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

Exhibit 5 - Proposed Rule Text

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SR-EMERALD-2024-27 - Exhibit 5 DR

The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change

Partial Amendment

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

1. Text of Proposed Rule Change

(a) MIAX Emerald, LLC (“MIAX Emerald” or “Exchange”), pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act” or “Exchange Act”)¹ and Rule 19b-4 thereunder,² proposes to amend the MIAX Emerald Options Exchange Fee Schedule (“Fee Schedule”) to establish a fee for market participants that choose to utilize the Exchange’s testing systems environment via a dedicated cross connection.

Notice of the proposed rule change for publication in the Federal Register is attached hereto as Exhibit 1, and a copy of the applicable section of the Fee Schedule is attached hereto as Exhibit 5.

(b) Not applicable.

(c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposed rule change was approved by the Chief Executive Officer of the Exchange or his designee pursuant to authority delegated by the Exchange Board of Directors on January 19, 2024. Exchange staff will advise the Board of Directors of any action taken pursuant to delegated authority. No other action by the Exchange is necessary for the filing of the proposed rule change.

Questions and comments on the proposed rule change may be directed to Chris Solgan, VP, Senior Counsel, at (609) 423-9414.

3. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

a. Purpose

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

The Exchange proposes to establish a fee for market participants that choose to utilize the Exchange's testing systems environment via a dedicated cross connection. The testing systems environment is a virtual trading system environment for Members³ and non-Members to test (i) upcoming Exchange software and code releases, (ii) product enhancements, and (iii) firm-developed software, prior to implementation in the Exchange's production (e.g., live trading) environment. Further, the testing systems environment allows unlimited testing of existing functionality, such as order types, order entry, order management, order throughput, acknowledgements, risk settings, mass cancelations, and purge requests. The testing systems environment is built to closely approximate the production environment to enable Members and non-Members the ability to test their systems and mimics the live trading environment.⁴

There are currently three methods by which Members and non-Members may access the Exchange's testing systems environment. One, Members and non-Members may access the Exchange's testing systems environment via a virtual private network ("VPN") that operates over the internet and provides site-to-site access. VPN access is provided for free to all Members and non-Members.

A second method is via a dedicated cross connection that allows Members and non-Members to access the testing systems environment and is available as either a 1 gigabit ("Gb") or 10Gb connection. Members and non-Members that utilize a VPN or a dedicated cross connection to access the testing systems environment of the Exchange are also able to access the testing systems environments of each of the Exchange's affiliated options markets – MIAX

³ 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. See Exchange Rule 100.

⁴ Business continuity and disaster recovery testing is performed separately and not within the testing systems environment that is the subject of this filing.

Sapphire, LLC (“MIAX Sapphire”), MIAX PEARL, LLC⁵ (“MIAX Pearl Options”), and Miami International Securities Exchange, LLC (“MIAX”). This dedicated cross connection would provide subscribers access to the testing systems environment of the Exchange, as well as each of its affiliate options exchanges, via a single connection.

Third, access is also provided through the production connections for each 1Gb or 10Gb ULL connection for the applicable fee⁶ for such connection and no additional charge. These 1Gb and 10Gb ULL connections provide access to the Exchange’s production environment (i.e., live trading) and allow the receipt of proprietary real-time market data. However, the Exchange previously announced that it will phase out the ability to connect to the testing systems environment via the existing 1Gb and 10Gb ULL production connections by February 28, 2025.⁷

* * * * *

The Exchange now proposes to amend the Fee Schedule to establish a monthly fee for Members and non-Members that choose to access the testing systems environment via a dedicated cross connect. In particular, the Exchange proposes to establish a monthly fee of \$1,000 per dedicated cross connection to the testing systems environment for Members and non-Members. The proposed fee is the same whether a Member or non-Member chooses to connect

⁵ All references to “MIAX PEARL” in this filing are to the options trading facility of MIAX PEARL, LLC, referred to herein as “MIAX Pearl Options.” Members and non-Members that choose to utilize the testing systems environment of MIAX Pearl Equities, the equities trading facility of MIAX PEARL, LLC, must utilize a separate dedicated cross connection as MIAX Pearl Equities’ testing systems environment operates on a separate network from the affiliated options markets.

⁶ See MIAX Emerald Fee Schedule, Sections 5)a)-b) for the fees for 1Gb and 10Gb ULL production connectivity.

⁷ See MIAX Options, MIAX Pearl Options and MIAX Emerald Options Exchanges - Announcing New Extranet Access to Firm Test Beds (FTB1 and FTB2) and Decommissioning of Access via Production Connections Beginning in October 2024, dated September 12, 2024, available at <https://www.miaxglobal.com/alert/2024/09/12/miax-options-miax-pearl-options-and-miax-emerald-options-exchanges-2?nav=all>; and Securities Exchange Act Release No. 100855 (August 28, 2024), 89 FR 71941 (September 4, 2024) (SR-EMERALD-2024-25).

to the testing systems environment via a 1Gb or 10Gb cross connect. The proposed fees would be set forth under new Sections 4)e) and 4)f) of the Fee Schedule. Proposed Sections 4)e) and 4)f) would also codify that VPN access to the test environment is provided for free for all Members and non-Members.

* * * * *

Members and non-Members that access the testing systems environment through any one of the available access methods, including a dedicated cross connection, receive functionally the same testing experience. Each Member or non-Member is free to decide how to access the testing systems environment based on their own needs and trading architecture or not utilize the testing systems environment at all. Again, accessing the testing systems environment via a dedicated direct connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated direct connection. Regardless of access method, all Members and non-Members are provided the same testing systems environment experience and are able to perform all of the same functions.

Implementation

The proposed fee change will be effective December 1, 2024.

b. Statutory Basis

The Exchange believes that the proposed rule change is consistent with Section 6(b) of the Act,⁸ in general, and furthers the objectives of Section 6(b)(5) of the Act,⁹ in particular, in that it is not designed to permit unfair discrimination among customers, brokers, or dealers. The Exchange also believes that its proposal is consistent with Section 6(b)(4) of the Act¹⁰ because it

⁸ 15 U.S.C. 78f(b).

⁹ 15 U.S.C. 78f(b)(5).

¹⁰ 15 U.S.C. 78f(b)(4).

represents an equitable allocation of reasonable dues, fees and other charges among market participants using any facility or system which the Exchange operates or controls.

Free VPN Access to the Firm Test Bed is a Reasonable Substitute

In 2019, Commission staff published guidance suggesting the types of information that self-regulatory organizations (“SROs”) may use to demonstrate that their fee filings comply with the standards of the Exchange Act (the “Staff Guidance”).¹¹ The Staff Guidance provides that in assessing the reasonableness of a fee, the Staff would consider whether the fee is constrained by significant competitive forces. To determine whether a proposed fee is constrained by significant competitive forces, the Staff Guidance further provides that the Staff would consider whether the evidence provided by an SRO in a Fee Filing proposal demonstrates (i) that there are reasonable substitutes for the product or service that is the subject of a proposed fee; (ii) that “platform” competition constrains the fee; and/or (iii) that the revenue and cost analysis provided by the SRO otherwise demonstrates that the proposed fee would not result in the SRO taking supra-competitive profits.¹² The proposed fee is reasonable because there is a reasonable substitute for the service that is the subject of this proposed fee as set forth below.

This filing includes the following evidence that demonstrates that there is a reasonable substitute to purchasing a dedicated cross connection to access the Exchange’s testing systems environment. That reasonable substitute is VPN access, which is provided for free and will continue to be free for all Members and non-Members. Members and non-Members may access the testing systems environment through either a VPN or a dedicated cross connection and will receive functionally the same testing environment and are able to perform all of the same

¹¹ See Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), [available at https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees](https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees).

¹² [Id.](#)

functions. The testing systems environment, whether accessed via a dedicated cross connection or VPN, provides Members and non-Members the same scope of abilities to test their systems and software in the Exchange's testing systems environment, which replicates the Exchange's production trading environment. Like a dedicated cross connection, a VPN provides access to the testing systems environment of not only the Exchange, but also each of its affiliate options exchanges over the same single access point. Accessing the testing systems environment via a dedicated cross connection provides no advantage to Members and non-Members compared to those market participants that elect to access the testing systems environment via a VPN for free.

Each Member or non-Member is free to decide how to access the testing systems environment based on their own needs and trading architecture. Again, accessing the testing systems environment via a dedicated direct connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated direct connection. Accessing the testing systems environment via the proposed dedicated cross connection may not provide utility to all Members and non-Members based on their business models and needs, and such users may choose to access the testing systems environment for free through the VPN and perform the same testing functions. As such, the Exchange believes that the proposed fee for access to the testing systems environment is reasonable and Members and non-Members have the choice, but are not obligated to access the testing systems environment via a dedicated cross connection. Otherwise, a user may choose to access the test environment via a VPN for free to test system functionality. For example, of the Exchange's thirty-seven Members¹³ and one non-Member that provide connectivity to the

¹³ See the Exchange's Membership Directory available at https://www.miaxglobal.com/miax_emerald_options_exchange_members.pdf.

Exchange, ten Members and non-Members currently use a VPN to access the Exchange's testing systems environment instead of the other two currently available options, i.e., a dedicated cross connection or their existing 1Gb or 10Gb ULL connection to the production environment. Some Members and non-Members also choose not to access the testing systems environment at all.

Lastly, supporting a proposed non-transaction fee change by arguing the availability of reasonable substitutes is not novel. Commission Staff has published for immediate effectiveness filings regarding non-transaction fees by exchanges who argued that the fees were consistent with the Exchange Act because of reasonable substitutes were available as provided for in the Commission Staff Guidance.¹⁴

Fee is Constrained by Competition and the Availability of Free VPN Access

If the Exchange prices the fee for dedicated cross connection access to the testing systems environment too high, Members and non-Members may choose not to subscribe and continue to perform the same testing functions via VPN internet access for no fee if they do not find the fee for accessing the testing systems environment via a dedicated cross connection to be of value. Again, the Exchange notes that accessing the testing systems environment via a dedicated cross connection would be completely voluntary and is simply an additional optional means to access the test environment. The Exchange also has Members and non-Members that do not utilize the testing systems environment at all.

The Exchange operates in a highly competitive environment in which 18 U.S. registered equity options exchanges compete for market share. Based on publicly available information for the month of October 2024, no single options exchange had more than approximately 12-13% of

¹⁴ See, e.g., Securities Exchange Act Release Nos. 101096 (September 18, 2024), 89 FR 77913 (September 24, 2024) (SR-ISE-2024-46); 98974 (November 16, 2023), 88 FR 81468 (November 22, 2023) (SR-NYSEARCA-2023-78); 87795 (December 18, 2019), 84 FR 71043 (December 26, 2019) (SR-NYSEArca-2019-88); and 90409 (November 12, 2020), 85 FR 73522 (November 18, 2020) (SR-NYSEArca-2020-95).

the equity options market share and the Exchange represented only approximately 4.48% of the market share of equity options for that month.¹⁵ The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Particularly, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues and recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”¹⁶ The proposed fee for optional access via a dedicated cross connection to the test environment is the result of the competitive environment of the U.S. options industry.

Exchanges compete for order flow by providing testing opportunities and robust testing environments. Services like a testing environment provide Members and non-Members with the opportunity to test Exchange functionality prior to sending real order flow to be executed in the Exchange’s production environment. As mentioned above, numerous exchanges provide testing environments to market participants to test functionality and gain comfort with their exchange offering.¹⁷ This is intended to attract market share by offering a risk free way to gain comfort that their orders would be handled within the Exchange’s production environment as expected.

¹⁵ See the “Market Share” section of the Exchange’s website, available at <https://www.miaxglobal.com/> (last visited November 18, 2024).

¹⁶ See Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005) (“Regulation NMS Adopting Release”).

¹⁷ The Exchange notes that other exchange families offer a similar dedicated connection to their testing environment for their members and non-members. See, e.g., Nasdaq Options Test Facility (NTF) Abstract, Version 1.4.4 (March 2024), available at https://www.nasdaq.com/Nasdaq_Test_Facility_NTF_Guide (last visited July 16, 2024) (“...the Nasdaq Test Facility...where market participants can test their trading applications with the INET trading system. The NTF environment allows members to test sending and executing quotes and orders offered by our six options exchanges...”); see also Securities Exchange Act Release No. 100442 (June 27, 2024), 89 FR 55296 (July 3, 2024) (SR-CboeBZX-2024-058) (“...the Exchange also offers corresponding ports which provide Members and non-Members access to the Exchange’s certification environment to test proprietary systems and applications...The certification environment facilitates testing using replicas of the Exchange’s production environment process configurations which provide for a robust and realistic testing experience...”).

Exchanges seek to further encourage market participants to utilize their testing environments by providing multiple methods to connect. Some are provided for free while others and require a fee. Providing multiple methods to connect to a test environment provides market participants a choice on how to engage with the testing environment and a choice regarding the access method that best meets their business and operational needs.

If the Exchange proposed a fee that Members and non-Members viewed as excessively high, then the proposed fee would simply serve to reduce demand for access via a dedicated cross connection to the test environment, which as noted, is entirely optional as the Exchange will continue to provide free access to the test environment through VPN through the internet for site-to-site access. This could, in turn, reduce the attractiveness of the Exchange's live trading production environment because Members and non-Members may be unwilling to test functionality prior to entering live orders. Again, other options exchanges currently offer, or are able to introduce at their own cost, their own comparable testing environments with lower prices to better compete with the Exchange's offering and several competing exchanges already provide a similar service.

Selling different products and services, such as proposed herein, is a means by which exchanges compete to attract business. To the extent that the Exchange is successful in attracting market participants to purchase the dedicated cross connection to the test environment proposed herein, the Exchange may earn revenue and further enhance market participants' interactions on the Exchange, which would increase value of its other products and services to all market participants. If the market deems the proposed fee to be too high, Members and non-Members can choose not to use or discontinue their use of dedicated cross connection to the test environment and perform the same testing functions via the VPN internet access for free. The

Exchange, therefore, believes that the proposed fee for dedicated cross connection to the test environment reflects the competitive environment of U.S. options exchanges and would be properly assessed to Members and non-Members that subscribe.

The Proposed Fee is Reasonable because it is Similar to or Lower than Like Fees Charged by other Exchanges

The Exchange believes the proposed fees are reasonable as the proposed fees are similar to or lower than fees charged by competing exchanges for similar services. For example, The Nasdaq Stock Market, LLC assesses a fee of \$1,000 per hand-off, per month for subscribers to the testing facility via either a 1Gb or 10Gb switch port plus a one-time installation fee of \$1,000 per hand-off.¹⁸ The Exchange's proposed fee is, therefore, lower because it does not charge a separate installation fee. Cboe BZX Exchange, Inc. ("Cboe BZX") Options assesses a lower fee of \$250 per month for each certification logical port, which only provides access to the Cboe BZX testing environment, and not to the testing environment of any of Cboe BZX's affiliates.¹⁹ The fee to access the Cboe BZX testing environment and the testing environment of each of its three affiliated options exchange becomes incrementally higher with each Cboe BZX affiliate charging a \$250 monthly fee to access each testing environment, totaling as much as \$1,000.00

¹⁸ See, e.g., Nasdaq, Options 7: Pricing Schedule, Section 13 Testing Facilities, [available at https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/Nasdaq%20Options%207](https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/Nasdaq%20Options%207). Nasdaq's affiliates, like Nasdaq PHLX LLC ("PHLX"), also charge the same fee. See e.g., PHLX Options 7: Pricing Schedule, Section 9. Other Member Fees, E. Testing Facilities, [available at https://listingcenter.nasdaq.com/rulebook/phlx/rules/Phlx%20Options%207](https://listingcenter.nasdaq.com/rulebook/phlx/rules/Phlx%20Options%207) (assessing a fee of \$1,000 per hand-off, per month for subscribers to the testing facility via either a 1Gb or 10Gb switch port and a one-time installation fee of \$1,000 per hand-off). See also Securities Exchange Act Release No. 76259 (October 26, 2015), 80 FR 66947 (October 30, 2015) (SR-NASDAQ-2015-117) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Options Testing Facility). Like the Exchange's testing environment, a single connection to Nasdaq's test environment provides access to the other test environments of its affiliate options markets, PHLX and Nasdaq BX, Inc.

¹⁹ See also Cboe BZX Options Fee Schedule, Options Logical Port Fees, Certification Logical Ports, [available at https://www.cboe.com/us/options/membership/fee_schedule/bzx/](https://www.cboe.com/us/options/membership/fee_schedule/bzx/). See, e.g., Cboe EDGX Exchange, Inc. Options Fee Schedule, Options Logical Port Fees, Certification Logical Ports, [available at https://www.cboe.com/us/options/membership/fee_schedule/edgx/](https://www.cboe.com/us/options/membership/fee_schedule/edgx/).

per month.²⁰ Accordingly, the Exchange believes that comparable and competitive pricing are key factors in determining whether a proposed fee meets the requirements of the Act.

The Proposed Fee is Not Unfairly Discriminatory

The Exchange also believes the proposed fee is equitable and not unfairly discriminatory as the fee would apply equally to all Members and non-Members who choose to subscribe. It is a business and operational decision of each Member or non-Member that chooses to subscribe. The Exchange's proposed fee would not differentiate between Members and non-Members or connectivity types and is set at a modest level that would allow any interested Member and non-Member to subscribe based on their business and operational needs.

The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act²¹ in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and is not designed to permit unfair discrimination between customer, issuers, brokers and dealers. The Exchange does not believe that the proposed fee is unfairly discriminatory to subscribers to the test environment via a dedicated cross connection because, unlike the live trading environment where the capacity of connectivity to the Exchange may confer a competitive advantage to a market participant and therefore price differentiation is appropriate for the benefit conferred, there is no such benefit conferred in the testing systems environment.

²⁰ See also Cboe EDGX Exchange, Inc. Options Fee Schedule, Options Logical Port Fees, Certification Logical Ports, available at https://www.cboe.com/us/options/membership/fee_schedule/edgx/; Cboe Exchange, Inc. Fee Schedule, Logical Connectivity Fees, Certification Logical Ports, available at [Cboe_FeeSchedule.pdf](#); and Cboe C2 Exchange, Inc. Options Fee Schedule, Options Logical Port Fees, Certification Logical Ports, available at https://www.cboe.com/us/options/membership/fee_schedule/c2/.

²¹ 15 U.S.C. 78f(b)(5).

The Exchange does not believe that the proposed fee is unfairly discriminatory among subscribers to the test environment because all Members and non-Members that subscribe to the service will be assessed the same fee. Because the proposed fee does not discriminate between 1Gb and 10Gb cross connection options, Members and non-Members are able to subscribe to the test environment without regard to the cost of their capacity election. The Exchange believes that not discriminating on this basis will encourage participants to connect to the test environment in the same manner as they do to the live trading environment, and thereby help the test environment more closely mirror the live trading environment. Providing a more useful and accurate test environment will serve to improve live trading on the Exchange and the national market system by permitting Members and non-Members the ability to accurately test changes prior to implementing them in the live trading environment, thereby reducing the likelihood of a potentially disruptive system failure in the live trading environment, which has the potential to affect all market participants.

The Proposed Fee is Equitable

The Exchange believes that the proposed fee is equitably allocated because all Members and non-Members that choose to connect to the test environment will be assessed a uniform fee for those services. The Exchange believes that offering subscribers the option to subscribe to either a 1Gb or 10Gb dedicated cross connection for the same fee is an equitable allocation of fees because, unlike the live trading environment, there is no competitive advantage to possessing a higher capacity connection in the test environment. The test environment is designed to closely mirror the live trading environment for Members and non-Members, including matching the capacity of the live trading environment connection of each Member and non-Member. In the absence of any competitive advantage, charging a uniform fee for both a

1Gb or 10Gb dedicated cross connection is an equitable allocation of fees. The Exchange believes that charging a uniform fee rather than mirroring the fees for the live trading environment will encourage Members and non-Members to subscribe to the test environment and further encourage those that subscribe to use the same hardware as is used by them for connectivity to the live trading environment.

* * * * *

Finally, and as noted above, the Exchange's test environment provides a robust and realistic testing experience using a replica of the Exchange's production environment process configurations. This environment enables market participants to test upcoming Exchange software and code releases, product enhancements, as well as test firm software prior to implementation in the production environment. Further, the test environment allows unlimited firm-level testing of order types, order entry, order management, order throughput, acknowledgements, risk settings, mass cancelations, and purge requests. By providing firms the ability to test all of these features in the test environment prior to implementing them in the live trading environment, the Exchange believes this will reduce the likelihood of a potentially disruptive system failure in the live trading environment, which has the potential to affect all market participants.

4. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange made connectivity access to the test environment available to keep pace with technological changes in the industry and evolving customer needs and demands, and believes the product will contribute to robust competition among national securities exchanges. As a

result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges.

The Exchange believes the proposed fee would not cause any unnecessary or inappropriate burden on intermarket competition as other exchanges are free to introduce their own comparable testing environments for free or lower prices, which several competing exchanges already provide.²² The Exchange operates in a highly competitive environment, and its ability to price access to the test environment is constrained by the optional nature of accessing the test environment via a dedicated cross connect. Providing access to the test environment via dedicated cross connection is provided purely for convenience, in response to Member demand, and, again, would be entirely optional. The Exchange notes that use of accessing the test environment via a dedicated cross connection would be completely voluntary and is simply an additional optional means to access the test environment. Members who do not prefer the to access the test environment via a dedicated cross connection and pay the applicable fee will be able to continue to perform the same testing functions when accessing the test environment via the existing VPN internet access for free. The Exchange must consider this in its pricing discipline in order to attract subscribers. The Exchange believes that if it were to propose a fee that is excessively high, it would simply serve to reduce demand for the Exchange's product, which as discussed, Members and non-Members are under no obligation to utilize.

The Exchange does not believe the proposed rule change would cause any unnecessary or inappropriate burden on intramarket competition. Particularly, the proposed fee applies uniformly to any purchaser in that the Exchange does not differentiate between subscribers that

²² See supra note 18.

wish to access the testing systems environment via a dedicated cross connect via either a 1Gb or 10Gb connection. The proposed fee is set at a modest level that would allow any interested market participant to purchase access to the test environment based on their business needs.

5. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

Written comments were neither solicited nor received.

6. Extension of Time Period for Commission Action

Not Applicable.

7. Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)

Pursuant to Section 19(b)(3)(A)(ii) of the Act,²³ and Rule 19b-4(f)(2) thereunder²⁴ the Exchange has designated this proposal as establishing or changing a due, fee, or other charge imposed on any person, whether or not the person is a member of the SRO, which renders the proposed rule change effective upon filing.

8. Proposed Rule Change Based on rules of Another Self-Regulatory Organization or of the Commission

Not applicable.

9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act

Not applicable.

10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act

Not applicable.

11. Exhibits

²³ 15 U.S.C. 78s(b)(3)(A)(ii).

²⁴ 17 CFR 240.19b-4.

1. Completed notice of proposed rule change for publication in the Federal Register.
5. Copy of the applicable section of the Fee Schedule.

EXHIBIT 1

SECURITIES AND EXCHANGE COMMISSION
(Release No. 34- ; File No. SR-EMERALD-2024-27)

November ___, 2024

Self-Regulatory Organizations: Notice of Filing and Immediate Effectiveness of a Proposed Rule Change by MIAX Emerald, LLC to Amend Its Fee Schedule to Adopt Testing Systems Environment Fees

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)¹ and Rule 19b-4 thereunder,² notice is hereby given that on November ___, 2024, MIAX Emerald, LLC (“MIAX Emerald” or “Exchange”) filed with the Securities and Exchange Commission (“Commission”) a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend the MIAX Emerald Options Exchange Fee Schedule (the “Fee Schedule”) to establish a fee for market participants that choose to utilize the Exchange’s testing systems environment via a dedicated cross connection.

The text of the proposed rule change is available on the Exchange’s website at <https://www.miaxglobal.com/markets/us-options/miax-options/rule-filings>, at the Exchange’s principal office, and at the Commission’s Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to establish a fee for market participants that choose to utilize the Exchange's testing systems environment via a dedicated cross connection. The testing systems environment is a virtual trading system environment for Members³ and non-Members to test (i) upcoming Exchange software and code releases, (ii) product enhancements, and (iii) firm-developed software, prior to implementation in the Exchange's production (e.g., live trading) environment. Further, the testing systems environment allows unlimited testing of existing functionality, such as order types, order entry, order management, order throughput, acknowledgements, risk settings, mass cancelations, and purge requests. The testing systems environment is built to closely approximate the production environment to enable Members and non-Members the ability to test their systems and mimics the live trading environment.⁴

There are currently three methods by which Members and non-Members may access the Exchange's testing systems environment. One, Members and non-Members may access the Exchange's testing systems environment via a virtual private network ("VPN") that operates over the internet and provides site-to-site access. VPN access is provided for free to all Members and non-Members.

³ 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. See Exchange Rule 100.

⁴ Business continuity and disaster recovery testing is performed separately and not within the testing systems environment that is the subject of this filing.

A second method is via a dedicated cross connection that allows Members and non-Members to access the testing systems environment and is available as either a 1 gigabit (“Gb”) or 10Gb connection. Members and non-Members that utilize a VPN or a dedicated cross connection to access the testing systems environment of the Exchange are also able to access the testing systems environments of each of the Exchange’s affiliated options markets – MIAX Sapphire, LLC (“MIAX Sapphire”), MIAX PEARL, LLC⁵ (“MIAX Pearl Options”), and Miami International Securities Exchange, LLC (“MIAX”). This dedicated cross connection would provide subscribers access to the testing systems environment of the Exchange, as well as each of its affiliate options exchanges, via a single connection.

Third, access is also provided through the production connections for each 1Gb or 10Gb ULL connection for the applicable fee⁶ for such connection and no additional charge. These 1Gb and 10Gb ULL connections provide access to the Exchange’s production environment (i.e., live trading) and allow the receipt of proprietary real-time market data. However, the Exchange previously announced that it will phase out the ability to connect to the testing systems environment via the existing 1Gb and 10Gb ULL production connections by February 28, 2025.⁷

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⁵ All references to “MIAX PEARL” in this filing are to the options trading facility of MIAX PEARL, LLC, referred to herein as “MIAX Pearl Options.” Members and non-Members that choose to utilize the testing systems environment of MIAX Pearl Equities, the equities trading facility of MIAX PEARL, LLC, must utilize a separate dedicated cross connection as MIAX Pearl Equities’ testing systems environment operates on a separate network from the affiliated options markets.

⁶ See MIAX Emerald Fee Schedule, Sections 5)a)-b) for the fees for 1Gb and 10Gb ULL production connectivity.

⁷ See MIAX Options, MIAX Pearl Options and MIAX Emerald Options Exchanges - Announcing New Extranet Access to Firm Test Beds (FTB1 and FTB2) and Decommissioning of Access via Production Connections Beginning in October 2024, dated September 12, 2024, available at <https://www.miaxglobal.com/alert/2024/09/12/miax-options-miax-pearl-options-and-miax-emerald-options-exchanges-2?nav=all>; and Securities Exchange Act Release No. 100855 (August 28, 2024), 89 FR 71941 (September 4, 2024) (SR-EMERALD-2024-25).

The Exchange now proposes to amend the Fee Schedule to establish a monthly fee for Members and non-Members that choose to access the testing systems environment via a dedicated cross connect. In particular, the Exchange proposes to establish a monthly fee of \$1,000 per dedicated cross connection to the testing systems environment for Members and non-Members. The proposed fee is the same whether a Member or non-Member chooses to connect to the testing systems environment via a 1Gb or 10Gb cross connect. The proposed fees would be set forth under new Sections 4)e) and 4)f) of the Fee Schedule. Proposed Sections 4)e) and 4)f) would also codify that VPN access to the test environment is provided for free for all Members and non-Members.

* * * * *

Members and non-Members that access the testing systems environment through any one of the available access methods, including a dedicated cross connection, receive functionally the same testing experience. Each Member or non-Member is free to decide how to access the testing systems environment based on their own needs and trading architecture or not utilize the testing systems environment at all. Again, accessing the testing systems environment via a dedicated direct connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated direct connection. Regardless of access method, all Members and non-Members are provided the same testing systems environment experience and are able to perform all of the same functions.

Implementation

The proposed fee change will be effective December 1, 2024.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with Section 6(b) of the Act,⁸ in general, and furthers the objectives of Section 6(b)(5) of the Act,⁹ in particular, in that it is not designed to permit unfair discrimination among customers, brokers, or dealers. The Exchange also believes that its proposal is consistent with Section 6(b)(4) of the Act¹⁰ because it represents an equitable allocation of reasonable dues, fees and other charges among market participants using any facility or system which the Exchange operates or controls.

Free VPN Access to the Firm Test Bed is a Reasonable Substitute

In 2019, Commission staff published guidance suggesting the types of information that self-regulatory organizations (“SROs”) may use to demonstrate that their fee filings comply with the standards of the Exchange Act (the “Staff Guidance”).¹¹ The Staff Guidance provides that in assessing the reasonableness of a fee, the Staff would consider whether the fee is constrained by significant competitive forces. To determine whether a proposed fee is constrained by significant competitive forces, the Staff Guidance further provides that the Staff would consider whether the evidence provided by an SRO in a Fee Filing proposal demonstrates (i) that there are reasonable substitutes for the product or service that is the subject of a proposed fee; (ii) that “platform” competition constrains the fee; and/or (iii) that the revenue and cost analysis provided by the SRO otherwise demonstrates that the proposed fee would not result in the SRO taking supra-competitive profits.¹² The proposed fee is reasonable because there is a reasonable substitute for the service that is the subject of this proposed fee as set forth below.

⁸ 15 U.S.C. 78f(b).

⁹ 15 U.S.C. 78f(b)(5).

¹⁰ 15 U.S.C. 78f(b)(4).

¹¹ See Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), [available at https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees](https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees).

¹² Id.

This filing includes the following evidence that demonstrates that there is a reasonable substitute to purchasing a dedicated cross connection to access the Exchange's testing systems environment. That reasonable substitute is VPN access, which is provided for free and will continue to be free for all Members and non-Members. Members and non-Members may access the testing systems environment through either a VPN or a dedicated cross connection and will receive functionally the same testing environment and are able to perform all of the same functions. The testing systems environment, whether accessed via a dedicated cross connection or VPN, provides Members and non-Members the same scope of abilities to test their systems and software in the Exchange's testing systems environment, which replicates the Exchange's production trading environment. Like a dedicated cross connection, a VPN provides access to the testing systems environment of not only the Exchange, but also each of its affiliate options exchanges over the same single access point. Accessing the testing systems environment via a dedicated cross connection provides no advantage to Members and non-Members compared to those market participants that elect to access the testing systems environment via a VPN for free.

Each Member or non-Member is free to decide how to access the testing systems environment based on their own needs and trading architecture. Again, accessing the testing systems environment via a dedicated direct connection is entirely optional and no Member or non-Member is required by rule or regulation to make use of the testing systems environment via a dedicated direct connection. Accessing the testing systems environment via the proposed dedicated cross connection may not provide utility to all Members and non-Members based on their business models and needs, and such users may choose to access the testing systems environment for free through the VPN and perform the same testing functions. As such, the Exchange believes that the proposed fee for access to the testing systems environment is reasonable and Members and non-Members have the choice, but are not obligated to access the

testing systems environment via a dedicated cross connection. Otherwise, a user may choose to access the test environment via a VPN for free to test system functionality. For example, of the Exchange's thirty-seven Members¹³ and one non-Member that provide connectivity to the Exchange, ten Members and non-Members currently use a VPN to access the Exchange's testing systems environment instead of the other two currently available options, i.e., a dedicated cross connection or their existing 1Gb or 10Gb ULL connection to the production environment. Some Members and non-Members also choose not to access the testing systems environment at all.

Lastly, supporting a proposed non-transaction fee change by arguing the availability of reasonable substitutes is not novel. Commission Staff has published for immediate effectiveness filings regarding non-transaction fees by exchanges who argued that the fees were consistent with the Exchange Act because of reasonable substitutes were available as provided for in the Commission Staff Guidance.¹⁴

Fee is Constrained by Competition and the Availability of Free VPN Access

If the Exchange prices the fee for dedicated cross connection access to the testing systems environment too high, Members and non-Members may choose not to subscribe and continue to perform the same testing functions via VPN internet access for no fee if they do not find the fee for accessing the testing systems environment via a dedicated cross connection to be of value. Again, the Exchange notes that accessing the testing systems environment via a dedicated cross connection would be completely voluntary and is simply an additional optional means to access

¹³ See the Exchange's Membership Directory available at https://www.miaxglobal.com/miax_emerald_options_exchange_members.pdf.

¹⁴ See, e.g., Securities Exchange Act Release Nos. 101096 (September 18, 2024), 89 FR 77913 (September 24, 2024) (SR-ISE-2024-46); 98974 (November 16, 2023), 88 FR 81468 (November 22, 2023) (SR-NYSEARCA-2023-78); 87795 (December 18, 2019), 84 FR 71043 (December 26, 2019) (SR-NYSEArca-2019-88); and 90409 (November 12, 2020), 85 FR 73522 (November 18, 2020) (SR-NYSEArca-2020-95).

the test environment. The Exchange also has Members and non-Members that do not utilize the testing systems environment at all.

The Exchange operates in a highly competitive environment in which 18 U.S. registered equity options exchanges compete for market share. Based on publicly available information for the month of October 2024, no single options exchange had more than approximately 12-13% of the equity options market share and the Exchange represented only approximately 4.48% of the market share of equity options for that month.¹⁵ The Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Particularly, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues and recognized that current regulation of the market system “has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.”¹⁶ The proposed fee for optional access via a dedicated cross connection to the test environment is the result of the competitive environment of the U.S. options industry.

Exchanges compete for order flow by providing testing opportunities and robust testing environments. Services like a testing environment provide Members and non-Members with the opportunity to test Exchange functionality prior to sending real order flow to be executed in the Exchange’s production environment. As mentioned above, numerous exchanges provide testing environments to market participants to test functionality and gain comfort with their exchange offering.¹⁷ This is intended to attract market share by offering a risk free way to gain comfort

¹⁵ See the “Market Share” section of the Exchange’s website, available at <https://www.miaxglobal.com/> (last visited November 18, 2024).

¹⁶ See Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005) (“Regulation NMS Adopting Release”).

¹⁷ The Exchange notes that other exchange families offer a similar dedicated connection to their testing environment for their members and non-members. See, e.g., Nasdaq Options Test Facility (NTF) Abstract, Version 1.4.4 (March 2024), available at https://www.nasdaq.com/Nasdaq_Test_Facility_NTF_Guide (last

that their orders would be handled within the Exchange's production environment as expected. Exchanges seek to further encourage market participants to utilize their testing environments by providing multiple methods to connect. Some are provided for free while others and require a fee. Providing multiple methods to connect to a test environment provides market participants a choice on how to engage with the testing environment and a choice regarding the access method that best meets their business and operational needs.

If the Exchange proposed a fee that Members and non-Members viewed as excessively high, then the proposed fee would simply serve to reduce demand for access via a dedicated cross connection to the test environment, which as noted, is entirely optional as the Exchange will continue to provide free access to the test environment through VPN through the internet for site-to-site access. This could, in turn, reduce the attractiveness of the Exchange's live trading production environment because Members and non-Members may be unwilling to test functionality prior to entering live orders. Again, other options exchanges currently offer, or are able to introduce at their own cost, their own comparable testing environments with lower prices to better compete with the Exchange's offering and several competing exchanges already provide a similar service.

Selling different products and services, such as proposed herein, is a means by which exchanges compete to attract business. To the extent that the Exchange is successful in attracting market participants to purchase the dedicated cross connection to the test environment proposed

visited July 16, 2024) ("...the Nasdaq Test Facility...where market participants can test their trading applications with the INET trading system. The NTF environment allows members to test sending and executing quotes and orders offered by our six options exchanges..."); see also Securities Exchange Act Release No. 100442 (June 27, 2024), 89 FR 55296 (July 3, 2024) (SR-CboeBZX-2024-058) ("...the Exchange also offers corresponding ports which provide Members and non-Members access to the Exchange's certification environment to test proprietary systems and applications...The certification environment facilitates testing using replicas of the Exchange's production environment process configurations which provide for a robust and realistic testing experience...").

herein, the Exchange may earn revenue and further enhance market participants' interactions on the Exchange, which would increase value of its other products and services to all market participants. If the market deems the proposed fee to be too high, Members and non-Members can choose not to use or discontinue their use of dedicated cross connection to the test environment and perform the same testing functions via the VPN internet access for free. The Exchange, therefore, believes that the proposed fee for dedicated cross connection to the test environment reflects the competitive environment of U.S. options exchanges and would be properly assessed to Members and non-Members that subscribe.

The Proposed Fee is Reasonable because it is Similar to or Lower than Like Fees Charged by other Exchanges

The Exchange believes the proposed fees are reasonable as the proposed fees are similar to or lower than fees charged by competing exchanges for similar services. For example, The Nasdaq Stock Market, LLC assesses a fee of \$1,000 per hand-off, per month for subscribers to the testing facility via either a 1Gb or 10Gb switch port plus a one-time installation fee of \$1,000 per hand-off.¹⁸ The Exchange's proposed fee is, therefore, lower because it does not charge a separate installation fee. Cboe BZX Exchange, Inc. ("Cboe BZX") Options assesses a lower fee of \$250 per month for each certification logical port, which only provides access to the Cboe BZX testing environment, and not to the testing environment of any of Cboe BZX's affiliates.¹⁹

¹⁸ See, e.g., Nasdaq, Options 7: Pricing Schedule, Section 13 Testing Facilities, available at <https://listingcenter.nasdaq.com/rulebook/nasdaq/rules/Nasdaq%20Options%207>. Nasdaq's affiliates, like Nasdaq PHLX LLC ("PHLX"), also charge the same fee. See e.g., PHLX Options 7: Pricing Schedule, Section 9. Other Member Fees, E. Testing Facilities, available at <https://listingcenter.nasdaq.com/rulebook/phlx/rules/Phlx%20Options%207> (assessing a fee of \$1,000 per hand-off, per month for subscribers to the testing facility via either a 1Gb or 10Gb switch port and a one-time installation fee of \$1,000 per hand-off). See also Securities Exchange Act Release No. 76259 (October 26, 2015), 80 FR 66947 (October 30, 2015) (SR-NASDAQ-2015-117) (Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Options Testing Facility). Like the Exchange's testing environment, a single connection to Nasdaq's test environment provides access to the other test environments of its affiliate options markets, PHLX and Nasdaq BX, Inc.

¹⁹ See also Cboe BZX Options Fee Schedule, Options Logical Port Fees, Certification Logical Ports, available at https://www.cboe.com/us/options/membership/fee_schedule/bzx/. See, e.g., Cboe EDGX Exchange, Inc.

The fee to access the Cboe BZX testing environment and the testing environment of each of its three affiliated options exchange becomes incrementally higher with each Cboe BZX affiliate charging a \$250 monthly fee to access each testing environment, totaling as much as \$1,000.00 per month.²⁰ Accordingly, the Exchange believes that comparable and competitive pricing are key factors in determining whether a proposed fee meets the requirements of the Act.

The Proposed Fee is Not Unfairly Discriminatory

The Exchange also believes the proposed fee is equitable and not unfairly discriminatory as the fee would apply equally to all Members and non-Members who choose to subscribe. It is a business and operational decision of each Member or non-Member that chooses to subscribe. The Exchange's proposed fee would not differentiate between Members and non-Members or connectivity types and is set at a modest level that would allow any interested Member and non-Member to subscribe based on their business and operational needs.

The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act²¹ in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and is not designed to permit unfair discrimination between customer, issuers, brokers and dealers. The Exchange does not believe that the proposed fee is unfairly discriminatory to subscribers to the test environment via a dedicated cross connection because, unlike the live trading environment where the capacity of

Options Fee Schedule, Options Logical Port Fees, Certification Logical Ports, available at https://www.cboe.com/us/options/membership/fee_schedule/edgx/.

²⁰ See also Cboe EDGX Exchange, Inc. Options Fee Schedule, Options Logical Port Fees, Certification Logical Ports, available at https://www.cboe.com/us/options/membership/fee_schedule/edgx/; Cboe Exchange, Inc. Fee Schedule, Logical Connectivity Fees, Certification Logical Ports, available at [Cboe_FeeSchedule.pdf](#); and Cboe C2 Exchange, Inc. Options Fee Schedule, Options Logical Port Fees, Certification Logical Ports, available at https://www.cboe.com/us/options/membership/fee_schedule/c2/.

²¹ 15 U.S.C. 78f(b)(5).

connectivity to the Exchange may confer a competitive advantage to a market participant and therefore price differentiation is appropriate for the benefit conferred, there is no such benefit conferred in the testing systems environment.

The Exchange does not believe that the proposed fee is unfairly discriminatory among subscribers to the test environment because all Members and non-Members that subscribe to the service will be assessed the same fee. Because the proposed fee does not discriminate between 1Gb and 10Gb cross connection options, Members and non-Members are able to subscribe to the test environment without regard to the cost of their capacity election. The Exchange believes that not discriminating on this basis will encourage participants to connect to the test environment in the same manner as they do to the live trading environment, and thereby help the test environment more closely mirror the live trading environment. Providing a more useful and accurate test environment will serve to improve live trading on the Exchange and the national market system by permitting Members and non-Members the ability to accurately test changes prior to implementing them in the live trading environment, thereby reducing the likelihood of a potentially disruptive system failure in the live trading environment, which has the potential to affect all market participants.

The Proposed Fee is Equitable

The Exchange believes that the proposed fee is equitably allocated because all Members and non-Members that choose to connect to the test environment will be assessed a uniform fee for those services. The Exchange believes that offering subscribers the option to subscribe to either a 1Gb or 10Gb dedicated cross connection for the same fee is an equitable allocation of fees because, unlike the live trading environment, there is no competitive advantage to possessing a higher capacity connection in the test environment. The test environment is designed to closely mirror the live trading environment for Members and non-Members,

including matching the capacity of the live trading environment connection of each Member and non-Member. In the absence of any competitive advantage, charging a uniform fee for both a 1Gb or 10Gb dedicated cross connection is an equitable allocation of fees. The Exchange believes that charging a uniform fee rather than mirroring the fees for the live trading environment will encourage Members and non-Members to subscribe to the test environment and further encourage those that subscribe to use the same hardware as is used by them for connectivity to the live trading environment.

* * * * *

Finally, and as noted above, the Exchange's test environment provides a robust and realistic testing experience using a replica of the Exchange's production environment process configurations. This environment enables market participants to test upcoming Exchange software and code releases, product enhancements, as well as test firm software prior to implementation in the production environment. Further, the test environment allows unlimited firm-level testing of order types, order entry, order management, order throughput, acknowledgements, risk settings, mass cancelations, and purge requests. By providing firms the ability to test all of these features in the test environment prior to implementing them in the live trading environment, the Exchange believes this will reduce the likelihood of a potentially disruptive system failure in the live trading environment, which has the potential to affect all market participants.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange made connectivity access to the test environment available to keep pace with technological changes in the industry and evolving customer needs and demands, and believes

the product will contribute to robust competition among national securities exchanges. As a result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges.

The Exchange believes the proposed fee would not cause any unnecessary or inappropriate burden on intermarket competition as other exchanges are free to introduce their own comparable testing environments for free or lower prices, which several competing exchanges already provide.²² The Exchange operates in a highly competitive environment, and its ability to price access to the test environment is constrained by the optional nature of accessing the test environment via a dedicated cross connect. Providing access to the test environment via dedicated cross connection is provided purely for convenience, in response to Member demand, and, again, would be entirely optional. The Exchange notes that use of accessing the test environment via a dedicated cross connection would be completely voluntary and is simply an additional optional means to access the test environment. Members who do not prefer the to access the test environment via a dedicated cross connection and pay the applicable fee will be able to continue to perform the same testing functions when accessing the test environment via the existing VPN internet access for free. The Exchange must consider this in its pricing discipline in order to attract subscribers. The Exchange believes that if it were to propose a fee that is excessively high, it would simply serve to reduce demand for the Exchange's product, which as discussed, Members and non-Members are under no obligation to utilize.

The Exchange does not believe the proposed rule change would cause any unnecessary or inappropriate burden on intramarket competition. Particularly, the proposed fee applies

²² See supra note 18.

uniformly to any purchaser in that the Exchange does not differentiate between subscribers that wish to access the testing systems environment via a dedicated cross connect via either a 1Gb or 10Gb connection. The proposed fee is set at a modest level that would allow any interested market participant to purchase access to the test environment based on their business needs.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A)(ii) of the Act,²³ and Rule 19b-4(f)(2)²⁴ thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act.

Comments may be submitted by any of the following methods:

Electronic Comments:

- Use the Commission's internet comment form (<https://www.sec.gov/rules/sro.shtml>); or

²³ 15 U.S.C. 78s(b)(3)(A)(ii).

²⁴ 17 CFR 240.19b-4(f)(2).

- Send an email to rule-comments@sec.gov. Please include file number SR-EMERALD-2024-27 on the subject line.

Paper Comments:

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549-1090.

All submissions should refer to file number SR-EMERALD-2024-27. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (<https://www.sec.gov/rules/sro.shtml>).

Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection. All submissions should refer to file number SR-EMERALD-2024-27 and should be submitted on or before [INSERT DATE 21 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

For the Commission, by the Division of Trading and Markets, pursuant to delegated

authority.²⁵

Sherry R. Haywood,

Assistant Secretary.

²⁵ 17 CFR 200.30-3(a)(12).

Exhibit 5

New text is underlined;
 Deleted text is in [brackets]

MIAX Emerald Options Exchange Fee Schedule

* * * * *

4) Testing and Certification Fees

* * * * *

e) Member Testing Systems Environment Fees

<u>Access Type</u>	<u>Monthly Fee (Per Connection)</u>
<u>Virtual Private Network</u>	<u>Free</u>
<u>Dedicated Cross Connect</u>	<u>\$1,000.00</u>

f) Non-Member Testing Systems Environment Fees

<u>Access Type</u>	<u>Monthly Fee (Per Connection)</u>
<u>Virtual Private Network</u>	<u>Free</u>
<u>Dedicated Cross Connect</u>	<u>\$1,000.00</u>

* * * * *