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SECURITIES AND EXCHANGE COMMISSION

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Self-Regulatory Organizations; MIAX Emerald, LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend Its Fee Schedule To Adopt a Monthly Trading Permit Fees

December 8, 2020.

Pursuant to 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 27, 2020, 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 is filing a proposal to amend the MIAX Emerald Fee Schedule (the “Fee Schedule”) to establish monthly Trading Permit³ fees for Exchange Members.⁴

The text of the proposed rule change is available on the Exchange’s website at <http://www.miaxoptions.com/rule-filings/emerald>, at MIAX’s principal office, and at the Commission’s Public Reference Room.

¹ 15 U.S.C. 78s(b)(1).

² 17 CFR 240.19b-4.

³ The term “Trading Permit” means a permit issued by the Exchange that confers the ability to transact on the Exchange. See Exchange Rule 100.

⁴ 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 and the Definitions Section of the Fee Schedule.

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 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 amend the Fee Schedule to adopt monthly Trading Permit fees (the “Proposed Access Fees”) depending on the Member’s status as either an Electronic Exchange Member (“EEM”)⁵ or as a Market Maker.⁶ MIAX Emerald commenced operations as a national securities exchange registered under Section 6 of the Act⁷ on March 1, 2019.⁸ The Exchange adopted its transaction fees and certain of its non-transaction fees in its filing SR-EMERALD-2019-15.⁹ In that filing, the Exchange expressly waived, among other fees, the Proposed Access Fees, to provide an incentive to prospective EEMs and Market Makers to become Members of the Exchange. Accordingly, since the launch of the Exchange, all such

⁵ “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. See Exchange Rule 100 and the Definitions Section of the Fee Schedule.

⁶ The term “Market Makers” refers to “Lead Market Makers”, “Primary Lead Market Makers” and “Registered Market Makers” collectively. See Exchange Rule 100 and the Definitions Section of the Fee Schedule.

⁷ 15 U.S.C. 78f.

⁸ See Securities Exchange Act Release No. 84891 (December 20, 2018), 83 FR 67421 (December 28, 2018) (File No. 10-233) (order approving application of MIAX Emerald, LLC for registration as a national securities exchange).

⁹ See Securities Exchange Act Release No. 85393 (March 21, 2019), 84 FR 11599 (March 27, 2019) (SR-EMERALD-2019-15) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Establish the MIAX Emerald Fee Schedule).

membership fees have been waived for the Waiver Period.¹⁰ When the Exchange adopted the framework for its fees, it stated that it would provide notice to market participants when the Exchange intended to terminate the Waiver Period for the Proposed Access Fees. Accordingly, on September 15, 2020, the Exchange issued a Regulatory Circular which announced that the Exchange would be ending the Waiver Period for the Proposed Access Fees, among other non-transaction fees, beginning October 1, 2020.¹¹

The Exchange initially filed its proposal to establish the Proposed Access Fees on October 1, 2020.¹² The First Proposed Rule Change was published for comment in the Federal Register on October 21, 2020.¹³ On November 25, 2020, the Exchange withdrew the First Proposed Rule Change and refiled its proposal to establish monthly Trading Permit fees.¹⁴

Trading Permits are issued to Members who are either EEMs or Market Makers. The Exchange proposes to assess the Proposed Access Fees depending upon the category of Member that is issued a Trading Permit. Members issued Trading Permits during a calendar month will be assessed monthly Trading Permit Fees. The Exchange notes that the Exchange's affiliate,

¹⁰ “Waiver Period” means, for each applicable fee, the period of time from the initial effective date of the MIAX Emerald Fee Schedule until such time that the Exchange has an effective fee filing establishing the applicable fee. The Exchange will issue a Regulatory Circular announcing the establishment of an applicable fee that was subject to a Waiver Period at least fifteen (15) days prior to the termination of the Waiver Period and effective date of any such applicable fee. See the Definitions Section of the Fee Schedule.

¹¹ See MIAX Emerald Regulatory Circular 2020-41 available at https://www.miaxoptions.com/sites/default/files/circular-files/MIAX_Emerald_RC_2020_41.pdf.

¹² See Securities Exchange Act Release Nos. 90196 (October 15, 2020), 85 FR 67064 (October 21, 2020) (SR-EMERALD-2020-11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt One-Time Membership Application Fees and Monthly Trading Permit Fees) (the “First Proposed Rule Change”). The Exchange notes that it will refile its proposal to establish the one-time membership application fee in a separate filing.

¹³ See id.

¹⁴ See Comment Letter from Joseph W. Ferraro III, SVP, Deputy General Counsel, the Exchange, dated November 20, 2020, notifying the Commission that the Exchange will withdraw the First Proposed Rule Change.

Miami International Securities Exchange, LLC (“MIAX”), charges a similar, fixed trading permit fee to its EEMs, and a similar, varying trading permit fee to its Market Makers, based upon the number of assignments of option classes or the percentage of volume in option classes.¹⁵

The Exchange proposes that monthly Trading Permit fees will be assessed, with respect to the calculation of such fee to EEMs (other than clearing firms), in any month the EEM is certified in the membership system and is credentialed to use one or more Financial Information Exchange (“FIX”)¹⁶ ports in the production environment. Further, the Exchange proposes that monthly Trading Permit fees will be assessed with respect to EEM clearing firms in any month the clearing firm is certified in the membership system to clear transactions on the Exchange.

The Exchange proposes to assess EEMs a monthly fee of \$1,000 for each Trading Permit. Below is the proposed table showing the Trading Permit fees for EEMs:

Type of Trading Permit	Monthly MIAX Emerald Trading Permit Fee
Electronic Exchange Member	\$1,000.00

The Exchange proposes to assess monthly Trading Permit fees for Market Makers in any month the Market Maker (including a Registered Market Maker, Lead Market Maker, and Primary Lead Market Maker) is certified in the membership system, is credentialed to use one or more MIAX Emerald Express Interface (“MEI”)¹⁷ ports in the production environment and is

¹⁵ See the MIAX Fee Schedule, Section 3)b).

¹⁶ “FIX Port” means an interface with MIAX Emerald systems that enables the Port user to submit simple and complex orders electronically to MIAX Emerald. See the Definitions Section of the Fee Schedule.

¹⁷ The MEI is a connection to the MIAX Emerald System that enables Market Makers to submit simple and complex electronic quotes to MIAX Emerald. The Exchange offers Full Service MEI Ports, which provide Market Makers with the ability to send Market Maker simple and complex quotes, eQuotes, and quote purge messages to the MIAX Emerald System. Full Service MEI Ports are also capable of receiving administrative information. Market Makers are limited to two Full Service MEI Ports per Matching Engine. The Exchange also offers Limited Service MEI Ports, which provide Market Makers with the ability to send simple and complex eQuotes and quote purge messages

assigned to quote in one or more classes. Specifically, the Exchange proposes to adopt the following Trading Permit fees for Market Makers: (i) \$7,000 for Market Maker Assignments in up to 10 option classes or up to 20% of option classes by national average daily volume (“ADV”); (ii) \$12,000 for Market Maker Assignments in up to 40 option classes or up to 35% of option classes by ADV; (iii) \$17,000 for Market Maker Assignments in up to 100 option classes or up to 50% of option classes by ADV; and (iv) \$22,000 for Market Maker Assignments in over 100 option classes or over 50% of option classes by ADV up to all option classes listed on MIAX Emerald.

The Exchange also proposes to adopt an alternative lower Trading Permit fee for Market Makers who fall within the following Trading Permit fee levels, which represent the 3rd and 4th levels of the Market Maker Trading Permit fee table: (i) Market Maker Assignments in up to 100 option classes or up to 50% of option classes by volume; and (ii) Market Maker Assignments in over 100 option classes or over 50% of option classes by volume up to all option classes listed on MIAX Emerald. Specifically, the Exchange proposes to adopt footnote “■” following the Market Maker Trading Permit fee table for these Monthly Trading Permit tier levels, if the Market Maker’s total monthly executed volume during the relevant month is less than 0.025% of the total monthly executed volume reported by OCC in the customer account type for MIAX Emerald–listed option classes for that month, then the fee will be \$15,500 instead of the fee otherwise applicable to such level.

Below is the proposed table showing the Trading Permit fees for Market Makers:

Type of	Monthly MIAX	Market Maker Assignments
Trading	Emerald Trading	(the lesser of the applicable measurements below)

only, but not Market Maker Quotes, to the MIAX Emerald System. Limited Service MEI Ports are also capable of receiving administrative information. Market Makers initially receive two Limited Service MEI Ports per Matching Engine. See the Definitions Section of the Fee Schedule.

Permit	Permit Fee	Per Class	% of National Average Daily Volume
Market Maker (includes RMM, LMM, PLMM)	\$7,000.00	Up to 10 Classes	Up to 20% of Classes by volume
	\$12,000.00	Up to 40 Classes	Up to 35% of Classes by volume
	\$17,000.00 [■]	Up to 100 Classes	Up to 50% of Classes by volume
	\$22,000.00 [■]	Over 100 Classes	Over 50% of Classes by volume up to all Classes listed on MIAX Emerald

■ For these Monthly MIAX Emerald Trading Permit tier levels, if the Market Maker’s total monthly executed volume during the relevant month is less than 0.025% of the total monthly executed volume reported by OCC in the customer account type for MIAX Emerald-listed option classes for that month, then the fee will be \$15,500 instead of the fee otherwise applicable to such level.

For the calculation of the monthly Market Maker Trading Permit fees, the number of classes is defined as the greatest number of classes the Market Maker was assigned to quote in on any given day within the calendar month and the class volume percentage is based on the total national ADV in classes listed on MIAX Emerald in the prior calendar quarter. Newly listed option classes are excluded from the calculation of the monthly Market Maker Trading Permit fee until the calendar quarter following their listing, at which time the newly listed option classes will be included in both the per class count and the percentage of total national average daily volume. The Exchange proposes to assess MIAX Emerald Market Makers the monthly Market Maker Trading Permit fee based on the greatest number of classes listed on MIAX Emerald that the Market Maker was assigned to quote in on any given day within a calendar month and the

applicable fee rate that is the lesser of either the per class basis or percentage of total national ADV measurement.

The purpose of the alternative lower fee designated in proposed footnote “■” is to provide a lower fixed cost to those Market Makers who are willing to quote the entire Exchange market (or substantial amount of the Exchange market), as objectively measured by either number of classes assigned or national ADV, but who do not otherwise execute a significant amount of volume on the Exchange. The Exchange believes that, by offering lower fixed costs to Market Makers that execute less volume, the Exchange will retain and attract smaller-scale Market Makers, which are an integral component of the option marketplace, but have been decreasing in number in recent years, due to industry consolidation and lower market maker profitability. Since these smaller-scale Market Makers utilize less Exchange capacity due to lower overall volume executed, the Exchange believes it is reasonable and equitable to offer such Market Makers a lower fixed cost. The Exchange notes that the Exchange’s affiliate, MIAX, provides a similar alternative lower Trading Permit fee for Market Makers who quote the entire MIAX market (or substantial amount of the MIAX market), as objectively measured by either number of classes assigned or national ADV, but who do not otherwise execute a significant amount of volume on MIAX.¹⁸ The Exchange also notes that other options exchanges assess certain of their membership fees at different rates, based upon a member’s participation on that exchange,¹⁹ and, as such, this concept is not new or novel. The proposed changes to the Trading

¹⁸ See supra note 15.

¹⁹ See e.g., NYSE Arca Options Fees and Charges, p.1 (assessing market makers \$6,000 for up to 175 option issues, an additional \$5,000 for up to 350 option issues, an additional \$4,000 for up to 1,000 option issues, an additional \$3,000 for all option issues on the exchange, and an additional \$1,000 for the fifth trading permit and for each trading permit thereafter); NYSE American Options Fee Schedule, p. 23 (assessing market makers \$8,000 for up to 60 plus the bottom 45% of option issues, an additional \$6,000 for up to 150 plus the bottom 45% of option issues, an additional \$5,000 for up to 500 plus the bottom 45% of option issues, and additional \$4,000 for up to 1,100 plus the bottom 45% of option issues, an additional \$3,000 for all issues traded on the exchange, and an additional \$2,000 for 6th to 9th ATPs; plus an addition fee for premium products). See also Cboe BZX Options Exchange (“BZX Options”) assesses the Participant Fee,

Permit fees for Market Makers who fall within the 3rd and 4th levels of the fee table are based upon a business determination of current Market Maker assignments and trading volume.

MIAX Emerald believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee increase meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among members and markets. MIAX Emerald believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. MIAX Emerald deems Trading Permit fees to be access fees. The Exchange believes that it is important to demonstrate that these fees are based on its costs and reasonable business needs. Accordingly, the Exchange believes the Proposed Access Fees will allow the Exchange to offset expense the Exchange has and will incur, and that the Exchange is providing sufficient transparency (as described below) into how the Exchange determined to charge such fees. Accordingly, the Exchange is providing an analysis of its revenues, costs, and profitability (before the proposed changes), and the Exchange's revenues, costs, and profitability (following the proposed changes) for the Proposed Access Fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the Proposed Access Fees.

In order to determine the Exchange's costs associated with providing the Proposed Access Fees, the Exchange conducted an extensive cost review in which the Exchange analyzed every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports the services included in the Proposed Access Fees. The sum of all such portions of expenses represents the total cost of the Exchange to provide the

which is a membership fee, according to a member's ADV. See Cboe BZX Options Exchange Fee Schedule under "Membership Fees". The Participant Fee is \$500 if the member ADV is less than 5000 contracts and \$1,000 if the member ADV is equal to or greater than 5000 contracts. Id.

Proposed Access Fees. For the avoidance of doubt, no expense amount was allocated twice.

The Exchange is also providing detailed information regarding the Exchange's cost allocation methodology – namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the total cost to the Exchange to provide the Proposed Access Fees.

In order to determine the Exchange's projected revenues associated with providing the Proposed Access Fees, the Exchange analyzed the number of Members currently utilizing the Exchange's services associated with the Proposed Access Fees during 2020, and, utilizing a recently completed monthly billing cycle, extrapolated annualized revenue on a going-forward basis.

The Exchange is presenting its revenue and expense associated with the Proposed Access Fees in this filing in a manner that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2019. However, since the revenue and expense associated with the Proposed Access Fees were not in place in 2019 or for the first three quarters of 2020, the Exchange believes its 2019 Audited Unconsolidated Financial Statement is not useful for analyzing the reasonableness of the total annual revenue and costs associated with the Proposed Access Fees. Accordingly, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2020 actual (for the first 9 months) and projected (for the final 3 months) revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the Proposed Access Fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit when comparing the Exchange's total annual expense associated with providing the services associated with the Proposed Access Fees versus the total projected annual revenue the Exchange will collect for providing those services.

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On March 29, 2019, the Commission issued its Order Disapproving Proposed Rule Changes to Amend the Fee Schedule on the BOX Market LLC Options Facility to Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network (the “BOX Order”).²⁰ On May 21, 2019, the Commission issued the Staff Guidance on SRO Rule Filings Relating to Fees.²¹ Accordingly, the Exchange believes that the Proposed Access Fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are supported by evidence (including comprehensive revenue and cost data and analysis) that they are fair and reasonable because they not result in excessive pricing or supra-competitive profit; and (iv) utilize a cost-based justification framework that is substantially similar to a framework previously used by the Exchange to establish other non-transaction fees. Accordingly, the Exchange believes that the Commission should find that the Proposed Access Fees are consistent with the Act.

The proposed rule change is immediately effective upon filing with the Commission pursuant to Section 19(b)(3)(A) of the Act.

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act²² in general, and furthers the objectives of Section 6(b)(4) of the Act²³ in particular, in that it is an equitable allocation of reasonable dues, fees and other charges among its members and issuers and other persons using its facilities. The Exchange also believes the

²⁰ See Securities Exchange Act Release No. 85459 (March 29, 2019), 84 FR 13363 (April 4, 2019) (SR-BOX-2018-24, SR-BOX-2018-37, and SR-BOX-2019-04).

²¹ See Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at <https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees> (the “Guidance”).

²² 15 U.S.C. 78f(b).

²³ 15 U.S.C. 78f(b)(4) and (5).

proposal furthers the objectives of Section 6(b)(5) of the Act in that it is designed to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general to protect investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

The Exchange only has four primary sources of revenue: transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees.

Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue.

The Exchange believes that the Proposed Access Fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense of MIAX Emerald associated with providing these services versus the total projected annual revenue that the Exchange projects to collect. For 2020, the total annual expense for providing the services associated with the Proposed Access Fees for MIAX Emerald is projected to be approximately \$2.5 million. The \$2.5 million in projected total annual expense is comprised of the following, all of which are directly related to the services associated with the Proposed Access Fees: (1) third-party expense, relating to fees paid by MIAX Emerald to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of MIAX Emerald to provide the services associated with the Proposed Access Fees. As noted above, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2020 actual (for the first 9 months) and projected (for the final 3 months) revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements.²⁴

²⁴ For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled "Operating Expenses Incurred Directly or Allocated From Parent," in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. See Securities Exchange Act Release No. 87877 (December 31,

The \$2.5 million in projected total annual expense is directly related to the services associated with the Proposed Access Fees, and not any other product or service offered by the Exchange. It does not include general costs of operating matching systems and other trading technology, and no expense amount was allocated twice.

As discussed, the Exchange conducted an extensive cost review in which the Exchange analyzed every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the services associated with the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, "in nature and closeness," directly related to those services. The sum of all such portions of expenses represents the total cost of the Exchange to provide services associated with the Proposed Access Fees.

For 2020, total third-party expense, relating to fees paid by MIAX Emerald to third-parties for certain products and services for the Exchange to be able to provide the services associated with the Proposed Access Fees, is projected to be \$190,621. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix, for data center services, for the primary, secondary, and disaster recovery locations of the MIAX Emerald trading system infrastructure; (2) Zayo Group Holdings, Inc. ("Zayo") for network services (fiber and bandwidth products and services) linking MIAX Emerald's office locations in Princeton, NJ and Miami, FL to all data center locations; (3) Secure Financial Transaction Infrastructure ("SFTI")²⁵, which supports connectivity and feeds for the entire U.S. options industry; (4)

2019), 85 FR 738 (January 7, 2020) (SR-EMERALD-2019-39). Accordingly, the third-part expense described in this filing is attributed to the same line item for the Exchange's 2020 Form 1 Amendment, which will be filed in 2021.

²⁵ In fact, on October 22, 2019, the Exchange was notified by SFTI that it is again raising its fees charged to the Exchange by approximately 11%, without having to show that such fee change complies with the Act by being reasonable, equitably allocated, and not unfairly discriminatory. It is unfathomable to the Exchange that, given the critical nature of the infrastructure services provided by SFTI, that its fees are not required to be rule-

various other services providers (including Thompson Reuters, NYSE, Nasdaq, and Internap), which provide content, connectivity services, and infrastructure services for critical components of options connectivity and network services; and (5) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.).

For clarity, only a portion of all fees paid to such third-parties is included in the third-party expense herein, and no expense amount is allocated twice. Accordingly, MIAX Emerald does not allocate its entire information technology and communication costs to the services associated with the Proposed Access Fees.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange to provide the services associated with the Proposed Access Fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure. This includes, among other things, the necessary storage space, which continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange's network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the services associated with the Proposed Access Fees, only that portion which the Exchange identified as being specifically mapped to providing the services associated with the Proposed Access Fees, approximately 10% of the total Equinix expense. The Exchange believes this allocation is

filed with the Commission pursuant to Section 19(b)(1) of the Act and Rule 19b-4 thereunder. See 15 U.S.C. 78s(b)(1) and 17 CFR 240.19b-4, respectively.

reasonable because it represents the Exchange's actual cost to provide the services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking MIAX Emerald with its affiliates, MIAX and MIAX PEARL, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the services associated with the Proposed Access Fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the Proposed Access Fees, approximately 1% of the total Zayo expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.

The Exchange believes it is reasonable to allocate the identified portions of the SFTI expense and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) expense because those entities provide connectivity and feeds for the entire U.S. options industry, as well as the content, connectivity services, and infrastructure services for critical components of the network. Without these services from SFTI and various other service providers, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the SFTI and other service providers' expense toward the cost of providing the services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the services associated with the Proposed Access Fees, approximately 1% of the total SFTI and other service providers' expense. The Exchange

believes this allocation is reasonable because it represents the Exchange's actual cost to provide the services associated with the Proposed Access Fees.

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the services associated with the Proposed Access Fees, approximately 10% of the total hardware and software provider expense. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the services associated with the Proposed Access Fees.

For 2020, total projected internal expense, relating to the internal costs of MIA X Emerald to provide the services associated with the Proposed Access Fees, is projected to be \$2,046,137. This includes, but is not limited to, costs associated with: (1) employee compensation and benefits for full-time employees that support the services associated with the Proposed Access Fees, including staff in network operations, trading operations, development, system operations, business, as well as staff in general corporate departments (such as legal, regulatory, and finance) that support those employees and functions (including an increase as a result of the higher determinism project); (2) depreciation and amortization of hardware and software used to provide the services associated with the Proposed Access Fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs for leased office space for staff that provide the services associated with the Proposed Access Fees. The

breakdown of these costs is more fully-described below. For clarity, only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, MIAX Emerald does not allocate its entire costs contained in those items to the services associated with the Proposed Access Fees.

The Exchange believes it is reasonable to allocate such internal expense described above towards the total cost to the Exchange to provide the services associated with the Proposed Access Fees. In particular, MIAX Emerald's employee compensation and benefits expense relating to providing the services associated with the Proposed Access Fees is projected to be \$1,403,101, which is only a portion of the \$9,354,009 total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features and enhancements), Trade Operations, Finance (who provide billing and accounting services relating to the network), and Legal (who provide legal services relating to the network, such as rule filings and various license agreements and other contracts). As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by each employee on matters relating to the provision of services associated with the Proposed Access Fees. Without these employees, the Exchange would not be able to provide the services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the services associated with the Proposed Access Fees, approximately 15% of the total employee compensation and benefits expense. The Exchange believes this allocation is

reasonable because it represents the Exchange's actual cost to provide the services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.

MIAX Emerald's depreciation and amortization expense relating to providing the services associated with the Proposed Access Fees is projected to be \$571,888, which is only a portion of the \$3,812,590 total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network and provide the services associated with the Proposed Access Fees. Without this equipment, the Exchange would not be able to operate the network and provide the services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the services associated with the Proposed Access Fees, approximately 15% of the total depreciation and amortization expense, as these services would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.

MIAX Emerald's occupancy expense relating to providing the services associated with the Proposed Access Fees is projected to be \$71,148, which is only a portion of the \$474,323 total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the services associated with the Proposed Access

Fees. This amount consists primarily of rent for the Exchange's Princeton, NJ office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center ("NOC") and Security Operations Center ("SOC") from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network. The Exchange currently has approximately 150 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some role in the operation and performance of the services associated with the proposed Trading Permit fees. Without this office space, the Exchange would not be able to operate and support the network and provide the services associated with the Proposed Access Fees to its Members and their customers. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the services associated with the Proposed Access Fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network, approximately 15% of the total occupancy expense. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the services associated with the Proposed Access Fees, and not any other service, as supported by its cost review [sic]

Accordingly, based on the facts and circumstances presented, the Exchange believes that its provision of the services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit. To illustrate, for 2020, the Exchange's total projected revenue associated with the Proposed Access Fees for the remaining three months of 2020 is approximately \$625,000. Total projected expense for the Exchange for 2020 for the provision of the Proposed Access Fees is approximately \$2,236,758. Accordingly, the

provision of the services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit (rather, it will result in a loss of \$1,611,758 for 2020).

On a going-forward, fully-annualized basis, the Exchange projects that its annualized revenue for providing the services associated with the Proposed Access Fees would be approximately \$2.5 million per annum, based on a most recently completed billing cycle. The Exchange projects that its annualized expense for providing the services associated with the Proposed Access Fees would be approximately \$2,236,758 per annum. Accordingly, on a fully-annualized basis, the Exchange believes its total projected revenue for the providing the services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit, as the Exchange will make only a 10% profit margin on the Proposed Access Fees (\$2.5 million – \$2,236,758 = \$263,242 per annum).

For the avoidance of doubt, none of the expenses included herein relating to the services associated with the Proposed Access Fees relate to the provision of any other services offered by MIAX Emerald. Stated differently, no expense amount of the Exchange is allocated twice.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the services associated with the Proposed Access Fees because the Exchange performed a line-by-line item analysis of all the expenses of the Exchange, and has determined the expenses that directly relate to operation and support of the network. Further, the Exchange notes that, without the specific third-party and internal items listed above, the Exchange would not be able to operate and support the network, including providing the services associated with the Proposed Access Fees to its Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to the operation and support of the network. The Proposed Access Fees

are intended to recover the Exchange's costs of operating and supporting the network. Accordingly, the Exchange believes that the Proposed Access Fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual network operation and support costs to the Exchange versus the projected annual revenue from the Proposed Access Fees.

Further, the Exchange no longer believes it is necessary to waive these fees to attract market participants to the MIAX Emerald market since this market is now established and MIAX Emerald no longer needs to rely on such waivers to attract market participants. The Exchange believes that the proposal is equitable and not unfairly discriminatory because the elimination of the fee waiver for the Proposed Access Fees will uniformly apply to all EEMs and Market Makers seeking to become Members of the Exchange. The Exchange also notes that the Exchange's affiliate, MIAX, charges a similar, fixed trading permit fee to its EEMs, and a similar, varying trading permit fee to its Market Makers, based upon the number of assignments of option classes or the percentage of volume in option classes.²⁶

The Exchange believes that the Proposed Access Fees are reasonable, equitable and not unfairly discriminatory because they are within the range of comparable fees at other competing options exchanges.²⁷ The Proposed Access Fees are fair and equitable and not unreasonably discriminatory because they apply equally to all Market Makers regardless of type and access to the Exchange is offered on terms that are not unfairly discriminatory. The Exchange designed the fee rates in order to provide objective criteria for Market Makers of different sizes and business models that best matches their quoting activity on the Exchange. The Exchange notes that trading volume and quoting activity in the options market tends to be concentrated in the top ranked options classes; with the vast majority of options classes being thinly quoted and traded. The Exchange believes that the proposed fee rates and criteria provide an objective and flexible

²⁶ See supra note 15.

²⁷ See supra note 19.

framework that will encourage Market Makers to be assigned and quote in option classes with lower total national average daily volume while also equitably allocating the fees in a reasonable manner amongst Market Maker assignments to account for quoting and trading activity.

Finally, the Exchange notes that it operates in a highly competitive market in which market participants can readily favor competing venues if they deem fee levels at a particular venue to be excessive. In such an environment, the Exchange must continually adjust its fees for services and products, in addition to order flow, to remain competitive with other exchanges.

The Exchange believes that the proposed changes reflect this competitive environment.

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

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.

Intra-Market Competition

The Exchange believes that the Proposed Access Fees do not place certain market participants at a relative disadvantage to other market participants because the Proposed Access Fees do not favor certain categories of market participants in a manner that would impose a burden on competition; rather, the fee rates are designed in order to provide objective criteria for Market Makers of different sizes and business models that best matches their quoting activity on the Exchange. The Exchange notes that trading volume and quoting activity in the options market tends to be concentrated in the top ranked options classes; with the vast majority of options classes being thinly quoted and traded. The Exchange believes that the proposed fee rates and criteria provide an objective and flexible framework that will encourage Market Makers to be assigned and quote in option classes with lower total national average daily volume while also equitably allocating the fees in a reasonable manner amongst Market Maker assignments to account for quoting and trading activity.

Inter-Market Competition

The Exchange believes the Proposed Access Fees do not place an undue burden on competition on other SROs that is not necessary or appropriate. In particular, options market participants are not forced to become members of all options exchanges. The Exchange notes that it has far less Members as compared to the much greater number of members at other options exchanges. There are a number of large market makers and broker-dealers that are members of other options exchange but not Members of MIAX Emerald. The Exchange is also unaware of any assertion that its existing fee levels or the Proposed Access Fees would somehow unduly impair its competition with other options exchanges. To the contrary, if the fees charged are deemed too high by market participants, they can simply discontinue their membership with the Exchange.

The Exchange operates in a highly competitive market in which market participants can readily favor one of the 15 competing options venues if they deem fee levels at a particular venue to be excessive. Based on publicly-available information, and excluding index-based options, no single exchange has more than 16% market share. Therefore, no exchange possesses significant pricing power in the execution of multiply-listed equity and ETF options order flow. For the month of October 2020, the Exchange had a market share of approximately 3.60% of executed multiply-listed equity options²⁸ and the Exchange believes that the ever-shifting market share among exchanges from month to month demonstrates that market participants can discontinue or reduce use of certain categories of products, or shift order flow, in response to fee changes. In such an environment, the Exchange must continually adjust its fees and fee waivers to remain competitive with other exchanges and to attract order flow to the Exchange.

C. 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.

²⁸ See The Options Clearing Corporation ("OCC") publishes options and futures volume in a variety of formats, including daily and monthly volume by exchange, available here: <https://www.theocc.com/market-data/volume/default.jsp>.

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,²⁹ and Rule 19b-4(f)(2)³⁰ 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 (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to rule-comments@sec.gov. Please include File Number SR-EMERALD-2020-18 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-2020-18. This file number should be included on the subject line if e-mail 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 (<http://www.sec.gov/rules/sro.shtml>). Copies

²⁹ 15 U.S.C. 78s(b)(3)(A)(ii).

³⁰ 17 CFR 240.19b-4(f)(2).

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 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to

make available publicly. All submissions should refer to File Number SR-EMERALD-2020-18 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.³¹

J. Matthew DeLesDernier,
Assistant Secretary.

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³¹ 17 CFR 200.30-3(a)(12).