MARKET REGULATION ADVISORY NOTICE

Exchanges NEXSEF

Subject CME Globex Operator ID Requirements

Rule References Rules 208, 302, 309

Advisory Date March 8, 2022
Advisory Number NEX SEF 2022-02

Effective Date April 4, 2022

This Advisory Notice being issued to inform market participants of the regulatory requirements attendant to operator IDs on Globex, effective on trade date April 4, 2022¹, and pending all relevant CFTC regulatory review periods. Note, all capitalized terms shall have the meaning outlined in the Rulebook.

Participants are responsible for ensuring that all Operator IDs (also referred to as Trader IDs) active on the NEX SEF markets are unique at the Globex Firm ID ("GFID") level and that all non-administrative messages ("messages"), inclusive of orders, sent to Globex are properly submitted with the correct Operator ID. Operator IDs are not case sensitive and firms must ensure that uniqueness is achieved by means other than solely modifying the letter case between different Operator IDs (For example, "ABC" and "abc" would be viewed as the same Operator ID). Further, all Operator IDs must be 3 bytes (characters) in length², and the Market Regulation Department ("Market Regulation") strongly encourages the use of alphanumeric characters only. If the Operator ID contains non-alphanumeric characters, the only characters permitted are as follows:

underscore

- dash
- : colon
- @ (commercial) at
- . period

Participants must provide the identity of the "Individual" or "Team" assigned to each Operator ID immediately upon request by Market Regulation. Participants must maintain or cause to be maintained historical records related to the identity of the "Individual" or "Team" assigned to each Operator ID for a minimum of five years.

The Participant must ensure that each Operator ID is properly registered in the CME Request Center (ESS). All registrations must be current and accurate at all times.

Required Registration of Operator IDs

Registration of Operator IDs is required for all Participants who submit messages to NEX SEF. Participants must provide accurate and up-to-date registration information about their operator IDs within ESS. The Operator ID that is registered in ESS must exactly match the Operator ID that is submitted on all messages sent to NEX SEF.

Operator IDs Identifying an Individual

¹ This is a tentative date subject to change.

² NEX SEF will require 3 bytes for all Operator IDs until such a time when all users have moved to STP and there is no longer a technology constraint to vary the character length.

An Operator ID identifying an individual is used if the person meets one of the descriptions below:

- A single person who is a manual trader, which refers to a person who physically submits messages directly using a front-end system, typically via keyboard, mouse, or touchscreen, and the messages are then routed in their entirety to the match engine at the time of submission.
- A single person who is solely responsible for, and actively monitors at all times, the administration and operation of an Automated Trading System ("ATS"). An ATS refers to a computer system which generates and/or routes messages without human intervention. This includes any messages generated by a computer system or routed using functionality that manages the submission of an order through automated means (i.e. execution algorithm). The person in this role typically initiates or disables particular algorithms or strategies, adjusts the parameters of any automated program(s), and monitors the live trading of the ATS. All messages must be submitted with the "Individual" Operator ID assigned to the person present at the time of operation.
- A single person who engages in a combination of the trading methods described above. The
 person must ensure that all messages are submitted with the correct manual order indicator to
 differentiate between manual and automated activities.

Operator IDs Identifying a Team

Operator IDs identifying a team must only be used to submit automated messages to NEX SEF. Should a situation occur where a team needs to submit a manual message (i.e. during maintenance downtime, system malfunction, etc.), the message must be submitted with an operator ID registered to the specific single person submitting the message, rather than the operator ID associated with the team. In this scenario, a person would be acting in the capacity of an "individual" manual trader.

The firm must register a second operator ID for lead operators who also submit messages manually as an individual. Lead operators must not use the Operator ID submitted by the automated trading system for their individual manual trading.

Team Operator ID registration will take place in two steps:

- The name of the individuals who are administering, operating, and monitoring an ATS while it
 is operational must be captured in the Algorithmic Trading Certification Form. If there are
 changes to the composition of the team, it is the responsibility of the firm to ensure that those
 changes are promptly and accurately reflected through the submission of a new Algorithmic
 Trading Certification Form.
- 2. Each team Operator ID must have a lead operator. The firm must register an Operator ID that identifies the lead operator of the team in ESS, and this Operator ID must be used on every message sent by the automated trading system while the team is monitoring it. If the automated trading system is monitored by more than one team (i.e. shifts), the automated trading system must send messages carrying the Operator ID of the lead operator of the team currently monitoring it.

Each person is required to submit messages using their own operator ID and may not, <u>under any circumstances</u>, permit another person to enter messages using their operator ID.

Frequently Asked Questions (FAQ)

Identification and Registration of Globex Operator IDs (operator IDs)

1. What is an administrative message?

Administrative messages, which are <u>not</u> subject to the requirements set forth in this Advisory Notice, include the following: Logon, Heartbeat, Test Request, Resend Request, Session Level Reject, Business Level Reject, Sequence Reset, and Logout.

2. Do messages submitted to Globex require the submission of an accurate Operator ID?

Yes. All messages other than administrative messages referenced in the answer to Question 1 above must include the unique operator ID of the "Individual" or "Team" submitting such messages to Globex.

3. What is an Operator ID?

An operator or Operator ID or a Trader ID is a user ID that uniquely identifies a party that accesses and/or submits messages to Globex. Operator IDs are issued by Participants, or in some circumstances, by the GCC. Please note that Operator ID and Trader ID are synonymous. For Operator ID registration please contact Business Systems Integration @cmegroup.com.

4. Is the Operator ID submitted on a message visible to other market participants?

No. Trading on NEX SEF is anonymous.

5. Is it permissible for an individual to have multiple operator IDs?

Yes, an individual may have multiple Operator IDs. However, each firm must be able to uniquely identify the individual assigned to a particular Operator ID or identify the individuals assigned in the case of a team Operator ID.

6. Are firms responsible for ensuring that operator IDs are unique at the firm level?

All Operator IDs must be unique at the executing firm level or floor code

7. Is there any circumstance in which a person may use the Operator ID of another person?

No. Each message submitted to NEX SEF must reflect the Operator ID of the person or the lead operator of the team of persons who submitted the message or caused the message to be submitted.

8. If a person deploys an ATS and someone else monitors the operation of the ATS during certain hours, does the Operator ID of the person monitoring the ATS have to be entered on new messages?

Yes. The Operator ID on all messages must be the Operator ID of the person responsible for monitoring the operation of the ATS at that time. NEX SEF requires Participants to identify all members of the ATS team via the Algorithmic Trader Certification Form through ESS. For questions on completing this Form please contact Business Systems Integration @cmegroup.com. Participants are required to maintain this information and provide to NEX SEF upon request.

9. If a person deploys an ATS that operates for extended time periods, for example during Regular Trading Hours in addition to European and/or Asian trading hours, may that person's Operator ID be sent on all messages?

The Operator ID on the messages must reflect the person responsible for operating and monitoring the ATS at the time the messages are sent to NEX SEF. To the extent a single individual is

responsible for operating and monitoring the ATS over any given timeframe (e.g. more than one trading session or more than a typical work shift), the individual's Operator ID is required to be submitted on all messages. However, upon request, the individual must be able to demonstrate an effective means to monitor the ATS during all times it is operating. During the times that a person is not actively either operating or monitoring the trading operation of the ATS, their name should not be reflected as the active operator.

Additionally, only one individual / natural person short code may be associated with a given Operator ID. One or more computer algorithm short codes may be associated with an Operator ID which represents an Individual overseeing the administration and operation of an ATS.

In the event the ATS is monitored by a team, a head Operator ID should be reflected in the message sent to NEX SEF provided that each individual part of the ATS team is identified in the Algorithmic Trader Certification Form.

10. If a trader enters manual messages but also uses automated spreading functionality, may all of those messages be submitted under a single Operator ID?

Yes, in this situation, a single Operator ID may be used for both manual and automated messages. The manual order indicator value submitted with each message must appropriately identify whether the message was submitted via automated or manual means.

11. If a member of a team that monitors the operation of an ATS needs to submit manual messages, should the team Operator ID be submitted on those messages?

No. The team Operator ID may be used only for messages that are generated from the ATS. To the extent the team needs to submit manual messages, the individual Operator ID of the person who manually submits the message must be used. The lead trader will need to use a unique Operator ID separate from the team Operator ID that maps to that lead trader.

12. If an individual act as lead operator of an ATS, and trades also as an individual trader, can he/she use the same Operator ID used by the ATS to send messages to NEX SEF?

No, the lead operator must register a separate Operator ID, registered in his/her name, for submitting manual messages as support of the ATS (i.e. during maintenance downtime, system malfunction, etc.) or for submission of messages for individual trading.

13. Is an Operator ID the same as a short code?

No, short codes are used to identify the person or computer algorithm responsible for the investment decision for each order and for the execution of each transaction. Short codes are associated to individuals / natural persons (manual traders) or to computer algorithms. In the case of individuals / natural persons, the short code is used on order messages in lieu of a personal identifier.

In the case of computer algorithms, the short code should be a designation which meets the following conditions:

- (a) it is unique for each set of code or trading strategy that constitutes the algorithm;
- (b) it is used consistently when referring to the algorithm or version of the algorithm once assigned to it;
 - (c) it is unique over time.

As mentioned in FAQ 9, only one individual / natural person short code may be associated with a given Operator ID. One or more computer algorithm short codes may be associated with an Operator ID which represents an Individual overseeing the administration and operation of an ATS.

14. What types of violations related to Operator IDs will Market Regulation seek to identify?

Market Regulation's review of Operator IDs will be focused on, but not be limited, identifying the following types of violations:

- Missing or Inaccurate Registration
- Non-Identifiable Operators
- Invalid Use of Operator ID
- Invalid Operator ID Format
- Inaccurate Manual Order Indicator Submission

Questions regarding this Advisory Notice may be directed to the following individuals in Market Regulation:

Terry Quinn, Manager, Data Investigations, 312.341.3753

Lou Abarcar, Data Investigations Architect, Data Investigations, 312.341.3236

Laetizia Moreau, Senior Director, Data Investigations, 312.435.3619

For media inquiries concerning this Advisory Notice, please contact CME Group Corporate Communications at 312.930.3434 or news@cmegroup.com.





MARKET REGULATION ADVISORY NOTICE

From	NEX SEF Limited ("NEX SEF")
То	All EBS NDF Platform Participants
Subject	User Maintenance and Access
Rule References	901
Effective Date	April 4, 2022
Notice Date	March 8, 2022
Notice Number	2022-03

NEX SEF | User Maintenance and Access

Overview

This MRAN is being issued to inform market participants of user access criteria and how the information is maintained. This MRAN is pending all relevant CFTC regulatory review periods. Note, all capitalized terms shall have the meaning outlined in the Rulebook.

User Maintenance and Access

<u>Initial login information:</u> The Trading Floor Administrator ("TFA") is responsible for allocating an initial ID to each Authorised Trader. The NEX SEF Dealing Service will allocate default password to the Authorised Trader. When an Authorised Trader first signs on using this default password, he/she is required to change the password immediately. For Global Access, in addition to the above, the Facility will complete the user authentication process on behalf of the TFA.

Password Procedures: An Authorised Trader shall:

- A. change passwords regularly;
- B. never use another Authorised Trader's ID to sign on;
- C. never disclose passwords to other Authorised Traders or any other person;
- D. only sign in at one Workstation at any one time
- E. always sign off at the end of a trading session;
- F. never automate the sign on process (unless as part of the EBS Ai Client Application); and
- G. never turn off the monitor while signed on.

<u>Login Issues:</u> It is the responsibility of an Authorised Trader to contact the TFA if problems arise during sign on or if a password is forgotten. If an Authorised Trader believes that someone else has obtained his or her password, he or she must change his password and notify the TFA.

An Authorised Trader is given three opportunities to enter a correct password prior to having his or her Trader ID disabled. In the event that an Authorised Trader's ID is disabled, the Authorised Trader must contact his or her TFA who will reset his or her Trader ID. If the TFA is not available, the Authorised Trader may contact the Facility for assistance.





<u>Message of the Day:</u> After the sign on procedure has been successfully completed, the Authorised Trader will receive the date and time of his or her last sign on. At this time the Authorised Trader may receive a "message of the day". The Authorised Trader is responsible for contacting the TFA if the date and time displayed does not correspond to when he or she last signed on.

<u>Facility Discretion:</u> At the discretion of the Facility, any Workstation may be signed off by the Facility. In these instances, any outstanding Bids/Offers will be removed by the NEX SEF Dealing Service automatically.





MARKET REGULATION ADVISORY NOTICE

From	NEX SEF Limited ("NEX SEF")
То	All EBS NDF Platform Participants
Subject	Error Trade Review Request Process
Rule References	315(b), 315(c), 315(d), 318
Effective Date	April 4, 2022
Notice Date	March 8, 2022
Notice Number	2022-04

NEX SEF | Error Trade Review Request Process

This is an amendment to and supersedes the MRAN 2020-05.

Overview

It is important to NEX SEF that all Participants have a rewarding experience on the NEX SEF Platform. It benefits the market participants to better understand the rules set out in NEX SEF Rulebook as well as NEX SEF processes. In order to continue to maintain an orderly and transparent market, NEX SEF is outlining its Error Trade Review Request process, pursuant to NEX SEF Rule 315(b).

Error Trade Review Process

NEX SEF REVIEW REQUEST

Participants who wish to dispute a price to a trade executed on NEX SEF and would like NEX SEF to review the transaction's price under Rule 315(b) must contact EBS Support (CME Global Command Center) (see Exhibit A for contact information) within 8 minutes of the trade execution. To be eligible for NEX SEF Review, the trade must be in a product listed in Exhibit A.

If NEX SEF determines to review the trade price, EBS Support will notify all Participants that the trade is under review.

FAIR VALUE PRICE CALCULATION

In reviewing the trade price, pursuant to Rule 315(c), NEX SEF will assess the fair value price at the time of the transaction under review. Please see Exhibit A for an example of how the fair value price is calculated. EBS Support will ultimately notify all Participants whether the trade will stand, be adjusted, or cancelled.

BILATERAL ERROR TRADE RESOLUTION

Alternatively, Participants may settle the price dispute bilaterally pursuant to Rule 315(d), provided the Participants follow the relevant procedures outlined in Exhibit A.

Counterparty Information

Upon request, and subject to NEX SEF Rule 318, EBS Support will provide counterparty details.





Exhibit A NEX SEF ERROR TRADE REVIEW REQUEST – NDF

To comply with CFTC and MiFID II rules, the SEF NDF trading offered by NEX SEF Limited through the EBS Market platform is required to have a trade review procedure to address potential erroneous trades.

Customers are required to contact EBS Support within 8 minutes of the disputed trade if they wish for Rule 315(b) (Determination to Review a Transaction's Price) of the NEX SEF Limited Facility Rulebook ("Rulebook") to be invoked. Under Rule 315(c), NEX SEF will assess the fair value price at the time of the transaction under review. Please see below for an example of how the fair value price is calculated.

Subject to NEX SEF Rule 318, EBS Support can provide counterparty contact details on request.

EBS Support Contact Information:

Email: ebssupport@cmegroup.com

T UK 0800 012 8011 | US 8772780643 | Japan 00531 122527

International numbers here: https://www.cmegroup.com/tools-information/contacts-list/ebs-support.html

Fair Value Range

Tier 1	Liquid pairs or hours	0.5% from market reference price
Tier 2	Illiquid pairs or hours	1.0% from market reference price

Products

ON SEF NDF	00:00 GMT to 10:59 GMT	11:00 GMT to 23:59 GMT
ARS 1MS	Tier 2	Tier 2
BRL EOMS	Tier 2	Tier 2
CLP 1MS	Tier 2	Tier 2
CNY 1MS	Tier 2	Tier 2
CNY 1YS	Tier 2	Tier 2
CNY 3MS	Tier 2	Tier 2
CNY 6MS	Tier 2	Tier 2
COP 1MS	Tier 2	Tier 2
EGP 1MS	Tier 2	Tier 2
EGP 2MS	Tier 2	Tier 2
EGP 3MS	Tier 2	Tier 2
GHS 1MS	Tier 2	Tier 2
IDR 1MS	Tier 2	Tier 1
INR 1MS	Tier 2	Tier 1
INR EOMS	Tier 2	Tier 2
KES 1MS	Tier 2	Tier 2
KRW 1MS	Tier 2	Tier 1
MYR 1MS	Tier 2	Tier 1
NGN 1MS	Tier 2	Tier 2
PEN 1MS	Tier 2	Tier 2
PEN 61DS	Tier 2	Tier 2





PHP 1MS	Tier 2	Tier 1	
RUB 1MS	Tier 2	Tier 2	
TRY 1MS	Tier 2	Tier 2	
TWD 1MS	Tier 2	Tier 1	
VND 1MS	Tier 2	Tier 2	
ZMW 1MS	Tier 2	Tier 2	



Calculation Example:

- a. Disputed trade: USDKRW executed at 1099.00 at 12:00 GMT
- b. Reference Rate: EBS Market Trade prior to Error Trade that;
- Was completed within the preceding 10 minutes
- Was not part of the same sweep/Error Trade event
- Is not also under an Error Trade Process review
- Is eligible for Market Data publication (i.e. not Intra Floor, not mid-PD etc.)

If b) is unavailable;

- 1) EBS Market Mid immediately prior to Error Trade assuming;
 - Two-way price is available
- c. Relevant Tier to apply: Tier 1. 0.5% from reference rate.
- d. Calculation from the 1095.00 reference:

0.5% above reference rate: 1095 x 1.005 = 1100.475 0.5% below reference rate: 1095 x 0.995 = 1089.525

As the executed rate of 1099.00 is within 0.5% from the reference rate this trade would not be escalated to

NEX SEF Compliance function for review.

Alternative Resolution to Price Discrepancy

Rule 315(d)(1) permits Counterparties to mutually decide to amend or cancel a trade. Counterparties doing so must: (i) report such action to the same SDR to which NEX SEF reported the original transaction, in accordance with Part 45 of the CFTC's Regulations and Rule 316; and (ii) inform EBS Support in writing as soon as possible and no later than within one (1) Business Day (and maintain a record of such adjustment) as per Rule 315(d)(4) of the Rulebook.





MARKET REGULATION ADVISORY NOTICE

From	NEX SEF Limited ("NEX SEF")
То	All EBS NDF Platform Participants
Subject	Error Trade Review Request Process
Rule References	315(b), 315(c), 315(d), 318
Effective Date	April 4, 2022
Notice Date	March <u>8</u> 7, 2022
Notice Number	2022-04

NEX SEF | Error Trade Review Request Process

This is an amendment to and supersedes the MRAN 2020-05.

Overview

It is important to NEX SEF that all Participants have a rewarding experience on the NEX SEF Platform. It benefits the market participants to better understand the rules set out in NEX SEF Rulebook as well as NEX SEF processes. In order to continue to maintain an orderly and transparent market, NEX SEF is outlining its Error Trade Review Request process, pursuant to NEX SEF Rule 315(b).

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Participants who wish to dispute a price to a trade executed on NEX SEF and would like NEX SEF to review the transaction's price under Rule 315(b) must contact <u>EBS Support (CME Global Command Center) EBS Customer Support (</u>see Exhibit A for contact information) within 8 minutes of the trade execution. To be eligible for NEX SEF Review, the trade must be in a product listed in Exhibit A.

If NEX SEF determines to review the trade price, <u>EBS Support NEX SEF</u> will notify all Participants that the trade is under review.

FAIR VALUE PRICE CALCULATION

In reviewing the trade price, pursuant to Rule 315(c), NEX SEF will assess the fair value price at the time of the transaction under review. Please see Exhibit A for an example of how the fair value price is calculated. EBS Customer Support Support will ultimately notify all Participants whether the trade will stand, be adjusted, or cancelled.

BILATERAL ERROR TRADE RESOLUTION

Alternatively, Participants may settle the price dispute bilaterally pursuant to Rule 315(d), provided the Participants follow the relevant procedures outlined in Exhibit A.

Counterparty Information

Upon request, and subject to NEX SEF Rule 318, <u>EBS Support EBS Customer</u> will provide counterparty details.





Exhibit A NEX SEF <u>ERROR</u> TRADE REVIEW REQUEST – NDF

To comply with CFTC and MiFID II rules, the SEF NDF trading offered by NEX SEF Limited through the EBS Market platform is required to have a trade review procedure to address potential erroneous trades.

Customers are required to contact <u>EBS Support EBS Customer Support</u> within 8 minutes of the disputed trade if they wish for Rule 315(b) (Determination to Review a Transaction's Price) of the NEX SEF Limited Facility Rulebook ("Rulebook") to be invoked. Under Rule 315(c), NEX SEF will assess the fair value price at the time of the transaction under review. Please see below for an example of how the fair value price is calculated.

Subject to NEX SEF Rule 318, <u>EBS Support EBS Customer Support</u> can provide counterparty contact details on request.

EBS Customer Support Contact Information:

 $\textbf{Email:} \ \underline{\textbf{customersupport@ebs.com}} \ \textbf{ebssupport@cmegroup.com}$

T UK 0800 012 8011 | **US** 8772780643 | **Japan** 00531 122527

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CNY 6MS	Tier 2	Tier 2
COP 1MS	Tier 2	Tier 2
EGP 1MS	Tier 2	Tier 2
EGP 2MS	Tier 2	Tier 2
EGP 3MS	Tier 2	Tier 2
GHS 1MS	Tier 2	Tier 2
IDR 1MS	Tier 2	Tier 1
INR 1MS	Tier 2	Tier 1
INR EOMS	Tier 2	Tier 2
KES 1MS	Tier 2	Tier 2
KRW 1MS	Tier 2	Tier 1
MYR 1MS	Tier 2	Tier 1





NGN 1MS	Tier 2	Tier 2
PEN 1MS	Tier 2	Tier 2
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VND 1MS	Tier 2	Tier 2
ZMW 1MS	Tier 2	Tier 2



Calculation Example:

- a. Disputed trade: USDKRW executed at 1099.00 at 12:00 GMT
- b. Reference Rate: EBS Market Trade prior to Error Trade that;
- Was completed within the preceding 510 minutes
- Was not part of the same sweep/Error Trade event
- Is not also under an Error Trade Process review
- Is eligible for Market Data publication (i.e. not Intra Floor, not mid-PD etc.)

If b) is unavailable;

- 1) EBS Market Mid immediately prior to Error Trade assuming;
 - Two-way price is available
- c. Relevant Tier to apply: Tier 1. 0.5% from reference rate.
- d. Calculation from the 1095.00 reference:

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Alternative Resolution to Price Discrepancy

Rule 315(d)(1) permits Counterparties to mutually decide to amend or cancel a trade. Counterparties doing so must: (i) report such action to the same SDR to which NEX SEF reported the original transaction, in accordance with Part 45 of the CFTC's Regulations and Rule 316; and (ii) inform EBS Customer Support in writing as soon as possible and no later than within one (1) Business Day (and maintain a record of such adjustment) as per Rule 315(d)(4) of the Rulebook.

MARKET REGULATION ADVISORY NOTICE

Exchange

NEX SEF

Subject

Order Routing/Front-End Audit Trail Requirements

Rule References

Rule 208, 302, 309

Advisory Date

March 8, 2022

Advisory Number

NEX SEF 2022-01

Effective Date

April 4, 2022

This Market Regulation Advisory Notice is being issued to inform market participants of the regulatory requirements attendant to order routing and the creation and maintenance of front-end audit trail, effective on trade date April 4, 2022¹ and pending all relevant CFTC regulatory review periods. Note, all capitalized terms shall have the meaning outlined in the Rulebook.

NEX SEF Rule 208 ("Recordkeeping") requires that the electronic audit trail associated with any system that accesses the NEX SEF platform contain a complete and accurate record of all activity through that connection, and account for every electronic communication by the order routing or front-end system from the time such order routing or front-end system receives or generates an electronic communication until it is communicated to NEX SEF. Further, the Rule requires that Participants accessing the Facility are responsible for maintaining, or causing to be maintained, the electronic audit trail for a minimum of 5 years.

Participants responsible for the order routing/front-end audit trail must have the ability to provide data in the required format irrespective of the method used to connect to the Facility. Further, the connected entity must ensure that **all trading functionality supported by the system** is appropriately reflected in the audit trail. For the convenience of those responsible for such order routing or front-end systems, the NEX SEF has updated the <u>CME Group Client Systems Wiki</u> with data definitions, required format, and validation rules applied through the certification process of the minimum acceptable audit trail elements that such systems must capture.

An option for market participants to be compliant with these requirements is to download NEX SEF Front End Audit Trail - FEAT100 reports. This report is created by the exchange by capturing and formatting audit trail for all market participants. Market Participants can be compliant with rule 208 by downloading audit trail files via CME Enterprise Reporting Portal (EREP) and via CME SFTP service and storing these files for 5 years. The files will be available for download at the end of each business day. Each file will remain available for a maximum of 30 days.

CME Group Market Regulation performs annual reviews of order routing/front-end audit trails to validate that certified systems capture data in accordance with the minimum acceptable audit trail elements.

Responsibility for Preserving Audit Trails

NEX SEF Participants are responsible for maintaining or causing to be maintained the order routing/frontend system audit trail for all electronic orders, including order entry, modification, cancellation, and responses to such messages (referred to as the "electronic audit trail"), entered into the NEX SEF platform.

Within 10 days of the new system being deployed in the live environment, the Participant is required to provide the Market Regulation Department with a full production audit trail report. The purpose of this review is to verify that the Participant's audit trail meets the minimum data requirements, and that it can

¹ This is a tentative date subject to change.

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be produced in a standard human readable format. Questions regarding the submission of sample or production audit trail reports should be sent to AuditTrail@CMEGroup.com.

Questions regarding this Advisory Notice may be directed to the following individuals in Market Regulation:

Terry Quinn, Manager, 312.435.3753

Laetizia Moreau, Senior Director, 312.435.3619

For media inquiries concerning this Market Regulation Advisory Notice please contact CME Group Corporate Communications at 312.930.3434 or news@cmegroup.com.





MARKET REGULATION ADVISORY NOTICE

From	NEX SEF Limited ("NEX SEF")	
То	All Participants	
Subject	NEX SEF Operational Parameters Annex	
Rule References	104, 205, 206, 310	
Effective Date	April 4, 2022	
Notice Date	March 8, 2022	
Notice Number	2022-05	

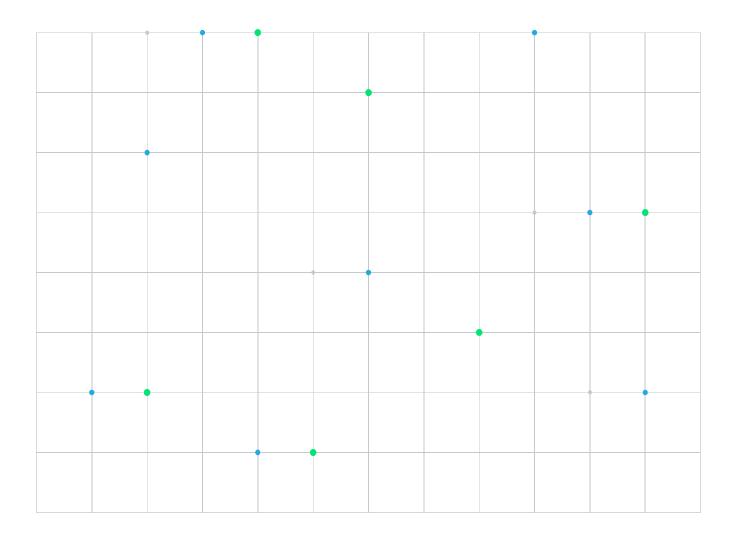
NEX SEF | Operational Parameters Annex

This MRAN supersedes MRAN 2021-05. The policy part of Appendix 1 the NEX SEF Operational Parameters Annex which describes various other arrangements NEX SEF has put in place to ensure the fair and orderly functioning of the market as required under MiFID II / MiFIR and relevant secondary legislation is hereby updated.

Appendix 1

NEX SEF Operational Parameters Annex

April 2022 Version 1.2



cmegroup.com 2 of 10

Introduction and Background

The NEX SEF is a Multilateral Trading Facility under MiFID II. Under MiFID II legislation (Directive 2014/65/EU ("MiFID II") and Regulation 600/2014 ("MiFIR")), and relevant secondary legislation including regulatory technical standards ("RTS"), in particular Commission Delegated Regulation (EU) 2017/584 ("RTS 7"), as retained in UK law under the European Union (Withdrawal) Act 2018, NEX SEF Limited ("the Operator") is required to have in place effective systems, procedures and arrangements to ensure the fair and orderly functioning of the markets that it operates.

This Annex describes the various arrangements the Operator has put in place to meet its obligations. Where relevant, further technical details of each arrangement are set out within the Operator's internal operational procedures.

1. Pre-Trade and Post-Trade Controls

1.1. Pre-Trade controls

As per RTS 7 requirements, the NEX SEF governs the use of its electronic order systems through pretrade controls on price, value of orders and order entry messaging thresholds.

1.1.1. Price Controls

For iLink, NEX SEF maintains an allowable price range for a given order based on the most recent reference price. Orders submitted outside of the allowable price range are automatically rejected. On the EBS Workstation, participants can set additional price bands which can be clicked-through if necessary. Allowable price ranges are set out in the Reference Data API.

1.1.2. Value Controls

NEX SEF validates order submissions prior to their release to the matching engine.

- Minimum and maximum order values are set per instrument and available in the Reference Data API.
- Participants are able to configure maximum order size for each instrument across multiple GUS within the same GFID. Further details are available in the Client Systems Wiki.

1.1.3. Message Transmission Controls

1.1.3.1. Order Throttling

Orders can be rejected if more than a predefined number of messages are sent during a rolling window. If a Participant reaches an initial threshold, new messages are rejected. After a second

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threshold, the customer's connection is terminated. Messaging thresholds are explained and set out in the Client Systems Wiki.

1.1.3.2. Minimum Quote Life

- A 'Minimum Quote Life' (MQL) is enforced for selected instruments/pairs and is applied to quotes submitted through iLink.
- MQL is designed to increase the likelihood of a viewed quote being available to trade and reduce hyper-active order book participation by implementing a minimum time limit before an order may be modified or cancelled. With MQL, a new order must rest for a pre-defined duration ("MQL timer") before it can be cancelled or modified. The length of time is defined for each instrument / pair individually and communicated via the Reference Data API.
- Further details available in the Client Systems Wiki.

1.1.3.3. Self-Match Prevention

- Through iLink, orders submitted using the same GFID and GUS can be submitted with different SMP IDs and are able to Match. Orders submitted with the same SMP ID will not Match. SMP IDs can be created at a Participant level, and a single SMP ID can be assigned to multiple GFIDs. SMP applies on a per-Order basis on Globex.
- Further details are available in the <u>Client System Wiki</u>.

1.2. Post-Trade Controls

1.2.1. Unexecuted Orders to Transactions Ratio

NEX SEF calculates the ratio of unexecuted orders to transaction for each of its participants at the end of every trading session in both volume terms and in number terms:

Volume terms: (Total volume of orders/Total volume of transactions) - 1 **Number terms**: (Total number of orders/Total number of transactions) - 1

Unexecuted orders to transaction ratios are monitored against the maximum thresholds, which have been determined taking into account the nature and liquidity of instruments on the NEX SEF and normal trading patterns.

The thresholds are subject to ongoing review and calibration and participants will be notified via the appropriate channels of any changes to these thresholds.

1.2.2. Other Fill Ratios

NEX SEF operated Quote Fill Ratios ("QFR") on selected NDF currency pairs. The QFR is a minimum percent of passive Bid/Offer submissions. The Operator monitors and enforces the QFR as set out in the EBS Quote Fill Ratio MRAN.

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Details of the calculation methodology for QFR can found in Rule 901(j)7(ii) of the NEX SEF Rulebook and relevant MRANs.

2. Volatility Interruptions

Article 48(5) MiFID II requires regulated markets to be able to temporarily halt or constrain trading if there is a significant price movement during a short period of time in a financial instrument on that market or a related market.

NEX SEF will monitor for significant price movements during short periods of time. In the event a price movement exceeds either a pre-defined static or dynamic threshold in a specific instrument, NEX SEF will review and determine whether to introduce a trading halt.

3. Testing Facilities

3.1. Overview

All algorithmic participants trading on the NEX SEF are required, prior to trading in production, to test their algorithmic trading systems for both conformance to NEX SEF specifications as well as to ensure their trading systems will be able to handle, and not contribute to, disorderly trading conditions.

The NEX SEF testing environment is strictly separated from the production environment and is offered to participants, and prospective participants, on a scheduled basis to facilitate testing of their algorithms for conformance and for disorderly trading conditions.

Test conditions representative of production are recreated in the testing environment. Within that environment, in addition to testing all aspects of conformance with NEX SEF specifications, participants can test their algorithms against a number of disorderly market conditions.

3.2. Fair Usage

NEX SEF makes the testing environment available to participants and prospective participants for the purpose of conformance testing and to facilitate testing against disorderly trading conditions. There is no charge for the use of the testing facilities.

It is not intended that participants and prospective participants use the NEX SEF testing facilities to evaluate and iterate on the profitability of their trading models.

The NEX SEF reserves the right to restrict access to the testing facilities if usage is considered to be outside of expectations.

4. Trading Venue Self-assessment

RTS 7 sets out requirements for regulated market operators to assess at least once a year their compliance with the provisions of Article 48 of MiFID II including those relating to business continuity arrangements.

The following parameters are taken into consideration in the self-assessment:

Nature

Nature of trading venue, instruments offered and their liquidity status

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Role of the trading venue in the market, whether instruments covered can be traded elsewhere

Scale

- Potential impact of NEX SEF on the fair and orderly functioning of the market
- Number of algorithms operating on the venue
- Messaging capacity
- Trading volumes
- Percentage of algorithmic trading and traded volume vs total activity
- Percentage of HFT activity and traded volume vs total activity
- Number of participants
- Ratio of unexecuted orders to transactions
- Number and percentage of API trading members
- Number of co-location sites provided
- Number of countries with business activity
- Volatility management mechanisms, dynamic or static trading limits used to halt trading or reject orders

Complexity

- Complexity of the NEX SEF offering and technical infrastructure
- · Asset classes offered
- Trading protocols supported (order book, auction, hybrid)
- Pre-trade transparency waivers used
- Trading system diversity and level of control of parameters, software versions, testing and reviews
- Trading system ownership, governance, operation and physical location
- Level of technical and operational outsourcing
- Frequency of changes to protocols, system and membership

5. Participant Due Diligence

Prospective participants of the NEX SEF are required to meet the eligibility criteria and participant obligations set out in the NEX SEF Rulebook upon onboarding and on an on-going basis.

Upon onboarding, NEX SEF will undertake KYC/AML checks and participants are required to complete a participant questionnaire to enable NEX SEF to review and assess the arrangements the participant has in place to meet the rules of the NEX SEF.

In accordance with MiFID II, NEX SEF requires each participant and prospective participant to maintain adequate organisational procedures relating to:

- Pre-trade controls on price and value of orders
- Post-trade controls on credit/clearing and market risk
- Usage controls on message transmission via API
- Software development control and conformance testing to the NEX SEF
- · Ability to cancel one or all live orders via use of kill functionality
- Qualified and experienced staff in key positions

NEX SEF conducts a periodic risk-based assessment of its participants to review whether participants continue to meet the participant obligations set out above and in the NEX SEF Rulebook.

6. Disorderly Trading Conditions

6.1. Overview

In accordance with MiFID II, NEX SEF has put in place arrangements to prevent disorderly trading including:

- Pre-trade controls on price and value of orders;
- Usage controls on message transmission via iLink;
- Unexecuted orders to transactions ratios;
- Mechanisms to manage volatility; and
- Kill functionality

All algorithmic participants trading on the NEX SEF are required, prior to trading in production, to test their algorithmic trading systems or strategies to ensure that they do not contribute to disorderly trading conditions.

In the event of disorderly trading conditions, NEX SEF is required to notify the UK Financial Conduct Authority, to inform participants that are subject to market making agreements that their obligations are suspended and to consider and communicate any further action to halt or constrain trading.

6.2. Disorderly Trading Indicators

The NEX SEF Rulebook defines disorderly trading conditions as a situation where the maintenance of fair, orderly and transparent execution of trades is compromised.

NEX SEF will consider a number of indicators to determine disorderly trading conditions including but not limited to the following:

- the price discovery process is interfered with over a significant period of time;
- the capacities of the NEX SEF's trading systems are reached or exceeded; and
- failure of mechanisms designed to protect against the risk of algorithmic trading.

6.3. Process Overview

6.3.1. Monitoring

NEX SEF monitors in real-time order entry rates and significant processes for its trading systems. Automated alerts are distributed when thresholds are breached based on defined internal procedures.

6.3.2. Communication Protocol

Participants will be notified of disorderly trading conditions through the publication of a market-wide broadcast message.

Participants that have entered into a market making agreement for the NEX SEF will be informed of the suspension of their obligations under their market making agreement until normal trading is resumed.

NEX SEF will notify its national competent authority of the disorderly trading conditions via email to the usual supervisory contact.

NEX SEF will consider and communicate any necessary additional measures such as trading halts or messaging restrictions.

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6.3.3. Resumption of normal trading

Upon resumption of normal trading the communication protocol will be repeated and market making agreement obligations will apply to relevant participants.

6.3.4. Post-mortem

The appropriate internal teams conduct a post-mortem incident review for the NEX SEF management body to include the following points:

- Key findings
- Customer experience
- Process improvement

7. Kill Functionality

7.1. Overview

NEX SEF participants must be able to cancel immediately, as an emergency measure, any or all of their unexecuted orders by means of its kill functionality.

In accordance with RTS 7, NEX SEF operates a kill functionality to cancel unexecuted orders submitted by participants. Unexecuted orders may be cancelled at a single order level, at an instrument level or participant firm level.

NEX SEF's policy on the use of its kill functionality can be divided into three authorities:

- · participant initiated:
- · venue initiated: and
- regulator initiated

7.2. Participant Initiated

Participants may request the cancellation of unexecuted orders where the participant is technically unable to delete its own orders. Participants may call into Customer Support and request cancellation of one or many unexecuted orders.

Any such request must be made by an appropriately authorised individual and should include all necessary information relating to the orders to be cancelled.

Participants may be asked to provide further information relating to any technical failures that may have rendered their own kill functionality inoperable.

7.3. Venue Initiated

NEX SEF may use its kill functionality where required to preserve market integrity in the event of the order book containing erroneous duplicated orders or following a suspension initiated by a market operator or competent authority.

7.4. Regulator Initiated

NEX SEF may use its kill functionality at the initiative of its national competent authority following an instrument suspension or further to an instruction to suspend a specific participant's access to the trading systems.

8. Suspension and removal of instruments

The NEX SEF may suspend or remove an instrument from trading, unless such a step would be likely to cause significant damage to the interest of investors or the orderly functioning of the market. Furthermore, the competent authority may demand the suspension of an instrument from trading on the NEX SEF.

8.1. Venue Initiated

NEX SEF may decide to suspend or remove an instrument from trading under certain conditions including but not limited to the following:

- An International Securities Identification Number (ISIN ISO 6166) is no longer assigned to the instrument
- The instrument is no longer available for trading, for example under foreign exchange restrictions
- There is little or no liquidity in an instrument over a significant period of time
- The suspension or removal is unlikely to cause significant damage to investors' interest or the orderly functioning of the market
- If an instrument is suspended or removed, then any derivatives that reference that instrument will also be suspended or removed

NEX SEF may seek the views of participants and the UK Financial Conduct Authority prior to suspending or removing an instrument in order to determine the potential for significant damage to investors' interests or the orderly functioning of the market including the potential to increase systemic risk or where continued availability of the instrument on the NEX SEF is necessary to perform critical post-trade risk management functions.

8.2. Regulator Initiated

NEX SEF may be required to suspend or remove a specific instrument from trading upon notification from the UK Financial Conduct Authority. In this event, NEX SEF is also required to consider whether to extend the decision to include related derivatives or other instruments.

NEX SEF will communicate any instrument suspension or removal to participants through the appropriate channels.

9. Business Clock Synchronisation

NEX SEF and its participants are required to ensure that the business clocks they use to record the date and time of any reportable event are synchronised with the Coordinated Universal Time (UTC) issued and maintained by the timing centres listed in the latest Bureau International des Poids et Mesures.

NEX SEF adheres to the levels of accuracy set out below taking into account that the gateway-to-gateway latency time of its trading system is above 1 millisecond.

	· ·	Granularity of the timestamp	
> 1 millisecond	1 millisecond	1 millisecond or better	

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Participants must ensure that their business clocks adhere to the level of accuracy prescribed in RTS 25 Annex Table 2, which is reproduced below.

Type of trading activity	Description	Maximum divergence from UTC	Granularity of the timestamp
Activity using high frequency algorithmic trading technique	High frequency algorithmic trading technique	100 microseconds	1 microsecond or better
Activity on voice trading systems	Voice trading systems as defined in Article 5(5) of Commission Delegated Regulation (EU) 2017/583	1 second	1 second or better
Activity on request for quote systems where the response requires human intervention or where the system does not allow algorithmic trading	Request for quotes systems as defined in Article 5(4) of Delegated Regulation (EU) 2017/583	1 second	1 second or better
Activity of concluding negotiated transactions	Negotiated transaction as set out in Article 4(1)(b) of Regulation (EU) No 600/2014.	1 second	1 second or better
Any other trading activity	All other trading activity not covered by this table.	1 millisecond	1 millisecond or better

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MARKET REGULATION ADVISORY NOTICE

From	NEX SEF Limited ("NEX SEF")		
То	All Participants		
Subject	NEX SEF Operational Parameters Annex		
Rule References	104, 205, 206, 310		
Effective Date	April 4, 2022		
Notice Date	March 8, 2022		
Notice Number	2022-05		

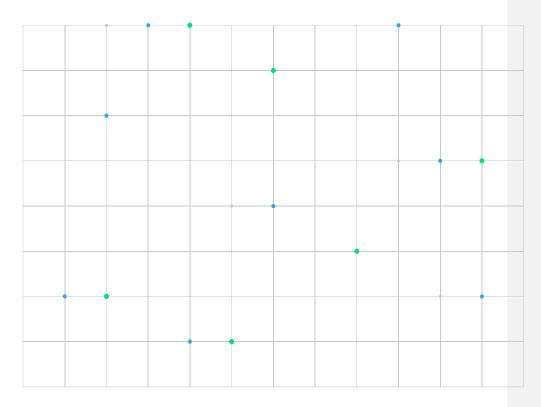
NEX SEF | Operational Parameters Annex

This MRAN supersedes MRAN 2021-05. The policy part of Appendix 1 the NEX SEF Operational Parameters Annex which describes various other arrangements NEX SEF has put in place to ensure the fair and orderly functioning of the market as required under MiFID II / MiFIR and relevant secondary legislation is hereby updated.

Appendix 1

NEX SEF Operational Parameters Annex

April 2022 Version 1.2



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Introduction and Background

The NEX SEF is a Multilateral Trading Facility under MiFID II. Under MiFID II legislation (Directive 2014/65/EU ("MiFID II") and Regulation 600/2014 ("MiFIR")), and relevant secondary legislation including regulatory technical standards ("RTS"), in particular Commission Delegated Regulation (EU) 2017/584 ("RTS 7"), as retained in UK law under the European Union (Withdrawal) Act 2018, NEX SEF Limited ("the Operator") is required to have in place effective systems, procedures and arrangements to ensure the fair and orderly functioning of the markets that it operates.

This Annex describes the various arrangements the Operator has put in place to meet its obligations. Where relevant, further technical details of each arrangement are set out within the Operator's internal operational procedures.

1. Pre-Trade and Post-Trade Controls

1.1. Pre-Trade controls

As per RTS 7 requirements, the NEX SEF governs the use of its electronic order systems through pretrade controls on price, value of orders and order entry messaging thresholds.

1.1.1. Price Controls

For iLink, NEX SEF maintains an allowable price range for a given order based on the most recent reference price. Orders submitted outside of the allowable price range are automatically rejected. On the EBS Workstation, participants can set additional price bands which can be clicked-through if necessary. Allowable price ranges are set out in the Reference Data API.

1.1.1.1. Price Check - Al

Al-customers have several price check validations which are on ("Y") by default, however, can be turned off ("N") by the users via the logon response message. Hardcoded parameters such as X-Pips are hardcoded and cannot be controlled by the user.

Control	Optional (Y/N)
Large DifferenceCheck	¥
PriceCheck	¥
WideSpreadCheck	¥
X-pips	N

LargeDifferenceCheck: The Al-server will reject a bid/offer price that varies (higher or lower) from the current Dealable Best bid/offer by more than the large difference pips for the currency pair. The default setting is "Y". The Large Difference value is set and hard coded by the MTF per pair.

PriceCheck: If "Y" when submitting a bid/offer, a check is performed to determine if the price is inverted. If "Y", orders with inverted prices are rejected (bid is greater than offer and vice versa). If "N", and the order deviates from the market price by more than the X-Pips amount, the order is rejected. The default setting is "Y". The X-Pips value is set per pair and hard coded by the MTF.

WideSpreadCheck: If "Y", the Ai server ensures that a bid price less than the current Dealable Best Offer by more than the wide spread pips is rejected, and an offer that exceeds the current dealable Best Bid by more than the wide spread pips is rejected. If "N", no restriction is in effect and the order is accepted. The default setting is "Y". The Wide Spread value is set and hard coded by the MTF per pair.

X-Pips: Prevents the user submitting a Bid/Offer greater than the X-pips value through the other side best. The X-Pips value is stated per pair and hardcoded by the MTF and is not controlled by the customer. This parameter systematically prevents a GTC order being submitted that breaches the coded values.

Price Check - Manual

Manual customers have several price check validations / warnings, some of which are enabled by the users. Hardcoded parameters such as X-Pips are hardcoded and cannot be controlled by the user.

Control	Optional (Y/N)
Large Difference	N
Check Rate	N
Wide Spread	¥
Bid > Dealable Offer	¥
X-pips	N

Large Difference: The GUI will provide a warning on the order request panel stating 'Large Difference' if the user attempts to enter an order which varies from the current Dealable Best bid / offer. The user can enter this order by clicking or pressing the 'SEND' button a second time following the warning.

Check Rate: The GUI will provide a warning when the market rate and the Bid/Offer pips entered by the user varies by more than the Check Rate pips. The Check Rate value is set per pair and hard coded by the MTF. The user can enter this order by clicking or pressing the 'SEND' button a second time following the warning.

Wide Spread: The GUI will provide a warning when:

(Bid-Side) The difference between the EBS Market Bid and the submitted Bid price is greater than the Wide Spread pips.

(Offer Side) The difference between the EBS Market Offer and the submitted Offer price is greater than the Wide Spread pips.

The Wide Spread value is set per pair and hard coded by the MTF. The user can enter this order by clicking or pressing the 'SEND' button a second time following the warning.

1.1.2. Value Controls

NEX SEF validates order submissions prior to their release to the matching engine.

- The mMinimum and maximum trade sizes order values are set per and hard coded by the MTF instrument and available in the Reference Data API.
- Participants are able to configure maximum order size for each instrument across multiple GUS within the same GFID. Further details are available in the Client Systems Wiki.
- Order value minimums are market specific and set-out in the EBS Market Guide to Pair Parameters which can be requested through EBS Customer Support.

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1.1.3. Message Transmission Controls

1.1.3.1. Order Throttling

Orders can be rejected if more than a predefined number of messages are sent during a rolling window. If a Participant reaches an initial threshold, new messages are rejected. After a second threshold, the customer's connection is terminated. Messaging thresholds are explained and set out in the Client Systems Wiki.

Δi

- EBS Market on a per AI session basis, enforces a throughput limit, defined as the number of new orders per rolling 5 seconds and the number of maximum active orders.
- If a participant reaches this threshold then new order submissions will be rejected.
- * Cancellation requests of existing orders will still be permitted.
- The current AI servers allow up to 3 sessions per server.

Manual

* The GUI does not have a systematically enforced throughput limit.

1.1.3.2. Minimum Quote Life

Al

- A 'mMinimum Qquote !Life' (MQL) is enforced for selected instruments/pairs and is applied to quotes submitted through iLink_at the Al server.
- MQL is designed to increase the likelihood of a viewed quote being available to trade and reduce hyper-active order book participation by implementing a minimum time limit before an order may be modified or cancelled. With MQL, a new order must rest for a pre-defined duration ("MQL timer") before it can be cancelled or modified. The length of time is defined for each instrument / pair individually and communicated via the Reference Data API.
- Both cancellation and order amend requests are subject to the MQL value.
- If a participant submits a cancellation for a quote pre the MQL expiry period, that order will be held at the Al server until its expiry.
- The MQL values are specified on a per pair basis in the EBS Market Guide to Pair Parameters which can be requested through EBS Customer Support.
- The MQL values can be customised per Al session and thus per participant Further details available in the Client Systems Wiki.

1.1.4. Counterparty Controls

1.1.4.1.1.3.3. Self-Match Prevention

- Intra-floor dealing (IFD) is a parameter available on a per floor code basis which prevents two
 Trader IDs under that floor code from trading with one another. If the value is enabled then this will
 be permitted.
- IFD can be permissioned by the EBS Customer Support team.

1.1.4.2. Counterparty Restrictions

- The GUI will display a white price if the Best Bid/Offer available has been submitted by a user from the same floor code.
- Prices from counterparties which do not have a bilateral credit relationship with the user will not be shown on the GUI, unless that price is features as the EBS Best bid or offer above the creditscreened prices.
- Participants are required to maintain their own credit counterparty matrices through the Trading Floor Administrator utility.
- Through iLink, orders submitted using the same GFID and GUS can be submitted with different SMP IDs and are able to Match. Orders submitted with the same SMP ID will not Match. SMP IDs can be created at a Participant level, and a single SMP ID can be assigned to multiple GFIDs. SMP applies on a per-Order basis on Globex.
- Further details are available in the Client System Wiki.

1.2. Post-Trade Controls

1.2.1. Unexecuted Orders to Transactions Ratio

NEX SEF calculates the ratio of unexecuted orders to transaction for each of its participants at the end of every trading session in both volume terms and in number terms:

Volume terms: (Total volume of orders/Total volume of transactions) - 1

Number terms: (Total number of orders/Total number of transactions) - 1

Unexecuted orders to transaction ratios are monitored against the maximum thresholds, which have been determined taking into account the nature and liquidity of instruments on the NEX SEF and normal trading patterns.

The thresholds are subject to ongoing review and calibration and participants will be notified via the appropriate channels of any changes to these thresholds.

1.2.2. Other Fill Ratios

NEX SEF operated Quote Fill Rations ("QFR") on selected NDF currency pairs. The QFR is a minimum percent of passive Bid/Offer submissions. The Operator monitors and enforces the QFR as set out in the EBS Quote Fill Ratio MRAN.

Details of the calculation methodology for QFR can found in Rule 901(j)7(ii) of the NEX SEF Rulebook and relevant MRANs.

Details of the calculation methodology for QFR can found in Rule 901(j)7(ii) of the NEX SEF Rulebook and relevant MRANs. may calculate and monitor other fill ratios to promote the orderly functioning of its markets. These would also be communicated by Market Notice.

Currently NEX-SEF operates NDF Quote Fill Thresholds calculated over a rolling four week interval as follows:

Volume of Good Till Cancelled ("GTC") orders traded in USD millions / Number of GTC orders submitted

During any rolling 4-week calculation window, NEX SEF will inform participants if they are not meeting the fill ratio thresholds. Following this notification, the participant will be given a two-week warning period to bring their fill ratios into compliance with the thresholds.

After the warning period, should the participant fail to meet the established fill ratio requirement for the currency pair, this would be deemed to be disruptive behaviour. Participants will be formally notified that their behaviour has been flagged as disruptive and instructed to desist trading within 24 hours via API in that currency pair for all timezones for a period of two weeks, after which they may resume trading.

2. Volatility Interruptions

Article 48(5) MiFID II requires regulated markets to be able to temporarily halt or constrain trading if there is a significant price movement during a short period of time in a financial instrument on that market or a related market.

NEX SEF will monitor for significant price movements during short periods of time. In the event a price movement exceeds either a pre-defined static or dynamic threshold in a specific instrument, NEX SEF will review and determine whether to introduce a trading halt.

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The NEX SEF testing environment is strictly separated from the production environment and is offered to participants, and prospective participants, on a scheduled basis to facilitate testing of their algorithms for conformance and for disorderly trading conditions.

Test conditions representative of production are recreated in the testing environment. Within that environment, in addition to testing all aspects of conformance with NEX SEF specifications, participants can test their algorithms against a number of disorderly market conditions.

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- · Percentage of algorithmic trading and traded volume vs total activity
- · Percentage of HFT activity and traded volume vs total activity
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- · Ratio of unexecuted orders to transactions
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Complexity

- Complexity of the NEX SEF offering and technical infrastructure
- · Asset classes offered
- Trading protocols supported (order book, auction, hybrid)
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- Pre-trade controls on price and value of orders
- Post-trade controls on credit/clearing and market risk
- Usage controls on message transmission via API

- Software development control and conformance testing to the NEX SEF
- · Ability to cancel one or all live orders via use of kill functionality
- Qualified and experienced staff in key positions

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- Pre-trade controls on price and value of orders;
- Usage controls on message transmission via API<u>iLink;</u>
- Unexecuted orders to transactions ratios;
- Mechanisms to manage volatility; and
- Kill functionality

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6.2. Disorderly Trading Indicators

The NEX SEF Rulebook defines disorderly trading conditions as a situation where the maintenance of fair, orderly and transparent execution of trades is compromised.

NEX SEF will consider a number of indicators to determine disorderly trading conditions including but not limited to the following:

- the price discovery process is interfered with over a significant period of time;
- the capacities of the NEX SEF's trading systems are reached or exceeded; and
- failure of mechanisms designed to protect against the risk of algorithmic trading.

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6.3.1. Monitoring

NEX SEF monitors in real-time order entry rates and significant processes for its trading systems. Automated alerts are distributed when thresholds are breached based on defined internal procedures.

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Participants will be notified of disorderly trading conditions through the publication of a market-wide broadcast message.

Participants that have entered into a market making agreement for the NEX SEF will be informed of the suspension of their obligations under their market making agreement until normal trading is resumed.

NEX SEF will notify its national competent authority of the disorderly trading conditions via email to the usual supervisory contact.

NEX SEF will consider and communicate any necessary additional measures such as trading halts or messaging restrictions.

6.3.3. Resumption of normal trading

Upon resumption of normal trading the communication protocol will be repeated and market making agreement obligations will apply to relevant participants.

6.3.4. Post-mortem

The appropriate internal teams conduct a post-mortem incident review for the NEX SEF management body to include the following points:

- · Key findings
- Customer experience
- Process improvement

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7.1. Overview

NEX SEF participants must be able to cancel immediately, as an emergency measure, any or all of its their unexecuted orders by means of its kill functionality.

In accordance with RTS 7, NEX SEF operates a kill functionality to cancel unexecuted orders submitted by participants. Unexecuted orders may be cancelled at a single order level, at an instrument level or participant firm level.

NEX SEF's policy on the use of its kill functionality can be divided into three authorities:

- participant initiated;
- · venue initiated; and
- regulator initiated

7.2. Participant Initiated

Participants may request the cancellation of unexecuted orders where the participant is technically unable to delete its own orders. Participants may call into Customer Support and request cancellation of one or many unexecuted orders.

Any such request must be made by an appropriately authorised individual and should include all necessary information relating to the orders to be cancelled.

Participants may be asked to provide further information relating to any technical failures that may have rendered their own kill functionality inoperable.

7.3. Venue Initiated

NEX SEF may use its kill functionality where required to preserve market integrity in the event of the order book containing erroneous duplicated orders or following a suspension initiated by a market operator or competent authority.

7.4. Regulator Initiated

NEX SEF may use its kill functionality at the initiative of its national competent authority following an instrument suspension or further to an instruction to suspend a specific participant's access to the trading systems.

8. Suspension and removal of instruments

The NEX SEF may suspend or remove an instrument from trading, unless such a step would be likely to cause significant damage to the interest of investors or the orderly functioning of the market. Furthermore, the competent authority may demand the suspension of an instrument from trading on the NEX SEF.

8.1. Venue Initiated

NEX SEF may decide to suspend or remove an instrument from trading under certain conditions including but not limited to the following:

- An International Securities Identification Number (ISIN ISO 6166) is no longer assigned to the instrument
- The instrument is no longer available for trading, for example under foreign exchange restrictions
- There is little or no liquidity in an instrument over a significant period of time
- The suspension or removal is unlikely to cause significant damage to investors' interest or the orderly functioning of the market
- If an instrument is suspended or removed, then any derivatives that reference that instrument will also be suspended or removed

NEX SEF may seek the views of participants and its national competentthe UK Financial Conduct aAuthority prior to suspending or removing an instrument in order to determine the potential for significant damage to investors' interests or the orderly functioning of the market including the potential to increase systemic risk or where continued availability of the instrument on the NEX SEF is necessary to perform critical post-trade risk management functions.

8.2. Regulator Initiated

NEX SEF may be required to suspend or remove a specific instrument from trading upon notification from the UK Financial Conduct Aits national competent authority. In this event, NEX SEF is also required to consider whether to extend the decision to include related derivatives or other instruments.

NEX SEF will communicate any instrument suspension or removal to participants through the appropriate channels.

9. Business Clock Synchronisation

NEX SEF and its participants are required to ensure that the business clocks they use to record the date and time of any reportable event are synchronised with the Coordinated Universal Time (UTC)

issued and maintained by the timing centres listed in the latest Bureau Jinternational des pPoids et Mmesures.

NEX SEF adheres to the levels of accuracy set out below taking into account that the gateway-to-gateway latency time of its trading system is above 1 millisecond.

		Granularity of the timestamp
> 1 millisecond	1 millisecond	1 millisecond or better

Participants must ensure that their business clocks adhere to the level of accuracy prescribed in RTS 25 Annex Table 2, which is reproduced below.

Type of trading activity		Maximum divergence from UTC	Granularity of the timestamp
Activity using high frequency algorithmic trading technique	High frequency algorithmic trading technique	100 microseconds	1 microsecond or better
Activity on voice trading systems	Voice trading systems as defined in Article 5(5) of Commission Delegated Regulation (EU) 2017/583	1 second	1 second or better
Activity on request for quote systems where the response requires human intervention or where the system does not allow algorithmic trading	Request for quotes systems as defined in Article 5(4) of Delegated Regulation (EU) 2017/583	1 second	1 second or better
Activity of concluding negotiated transactions	Negotiated transaction as set out in Article 4(1)(b) of Regulation (EU) No 600/2014.	1 second	1 second or better
Any other trading activity	All other trading activity not covered by this table.	1 millisecond	1 millisecond or better

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