

## Attachment 2 to Stock Exchange Notice N12/10

### System testing [1420]

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| G | 1420 | A <b>member firm</b> shall not submit orders, quotes or <b>trade reports</b> to <b>TradElect</b> <sup>®</sup> for the purpose of testing any systems or controls. |
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*Guidance to Rule:*

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*This rule is not intended to preclude a **member firm** from:*

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- (b) *using algorithms (“black boxes”) to submit orders, quotes or **trade reports** to **TradElect**<sup>®</sup>. The **Exchange** recognises that to mitigate risk, **member firms** using algorithms may wish to check those trading strategies by submitting trial orders or quotes to the appropriate trading service. In these circumstances the **Exchange** will not generally consider the orders or quotes submitted to **TradElect**<sup>®</sup> as prohibited testing under this rule. **Member firms** using algorithms are however reminded of their obligations under rules 1020 (adequate systems and controls), 1400 (misleading acts, conduct and prohibited practices) and 2101 (erroneous orders and **quotes**, and inappropriate orders) to maintain the integrity of the market.*

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## ORDER BOOK TRADING RULES

### Order entry

#### Access to TradElect<sup>®</sup> and the responsibility of member firms [2100-2109]

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| 2100   | Each order or <b>quote</b> submitted to <b>TradElect</b> <sup>®</sup> shall be:                 |
| 2100.1 | firm; and   |
| 2100.2 | subject only to the terms relating to benefit entitlements prevailing at the time of execution. |

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| G | 2101 | Any obligations and liabilities arising from the submission of electronic messages and orders to <b>TradElect</b> <sup>®</sup> under a <b>member firm’s</b> trading codes are the responsibility of that <b>member firm</b> . The <b>member firm</b> shall, at all times, have sufficient order management systems, procedures and controls designed to prevent the entry of erroneous orders and <b>quotes</b> , and inappropriate orders to <b>TradElect</b> <sup>®</sup> . |
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*Guidance to Rule:*

*A **member firm** is at all times bound by suitability rule 1020.*

*In determining whether a **member firm** has met the requirements of rules 1020 and 2101, the **Exchange** will consider the level of training and qualifications of individual traders, including the taking of any relevant examinations.*

*A **member firm** submitting an order or a **quote** to **TradElect**<sup>®</sup> is responsible for that order or **quote**. If an order has been submitted by or automatically routed from a third party (whether another **member firm** or not), then the **member firm** should consider how it is going to control the order flow.*

#### Erroneous orders and **quotes**, and inappropriate orders

*An erroneous order or **quote** is an order or **quote** entered mistakenly where there was no intention to trade in the security or an order or **quote** where the terms entered, mistakenly,*

did not represent the intended transaction. For the avoidance of doubt the terms of an order or **quote** include but are not limited to price, size and buy or sell (direction of trade).

An inappropriate order is an order, the terms of which were not submitted in error but which, in the view of the **Exchange**, has or could have a detrimental effect on the efficiency and orderliness of the **Exchange's** market.

In determining whether an order or **quote** is erroneous or if an order is inappropriate, the **Exchange** will ask the **member firm** for details of the background to the order or **quote** to establish if there was a reasonable commercial rationale for placing it. Below is a non-exhaustive list of scenarios where the **Exchange** may query an order or a **quote** with a **member firm**:

- orders or **quotes** that exceed the **Exchange's** price monitoring thresholds;
- an aggressively priced limit order that executes against a significant number of orders on one side of the order book, which could take place, for example, if price and size have been entered in the wrong fields;
- when the price of a stock is significantly moved as a result of an order which was submitted at an unsuitable time or using an unsuitable order type. Examples include, when a very large order is submitted at the end of an auction period or when a very large aggressively priced limit order is submitted during continuous trading;
- an unusually priced limit order that would appear to have been entered onto the **order book** to take advantage of a large market order on the other side of the **order book**. If these orders were to execute, they could significantly move the price of the stock;
- a very high priced buy order or a very low priced sell order entered into the auction period when it might be more appropriate to use a market order to guarantee execution;
- when a **portfolio trade** is being executed and it would appear that no account has been taken of the relative size of each of the constituent holdings; or
- an order that is divided into sizes either not intended by the **member firm** or which are so small or so large as to be inappropriate. For example:
  - algorithms which slice orders (including VWAP orders) into unusual sizes for the stocks in question, such as unusually small sized orders, which could affect the attractiveness of the market. This can be avoided if algorithms are programmed to take into account the actual or anticipated liquidity in all relevant stocks in the period in which the order will be worked.
  - repeatedly entering aggressive small orders in quick succession that execute against the same passive order on the **order book**, or entering a passive order onto the **order book** in multiple slices (consecutively or concurrently), that could have been entered in fewer slices without adverse price impact.

#### Systems, controls and alerts

**Member firms** should aim to prevent the entry of all erroneous orders and **quotes**, and inappropriate orders to **TradElect**® and should ensure that their systems are designed to identify and prevent the entry of such orders and **quotes**. In determining whether a **member firm's** systems are adequate in this regard, **member firms** should consider the use of controls and system alerts, which may be based on some or all of the following:

- the last order book traded price (from the previous day if appropriate);
- the current spread in the market;
- trader, security-specific or firm-wide size and price limits;
- the likely movement in the price of the security if the order or **quote** is submitted;

- a minimum and maximum financial consideration per order or **quote**;
- controls on limit orders and market orders submitted during an auction. When entering limit and market orders in auctions **member firms** must have sufficient systems and controls in place so that the type of order they submit does not have an inappropriate affect on the uncrossing price of the security in question. For instance, a **member firm** may wish to submit a market order to an auction to maximise its probability of execution but should have regard to the possible impact of a large market order on the auction uncrossing price;
- system alerts should be able to prevent the entry of orders containing errors which, because of their size and nature, may impact on the smooth running of the market. Similarly, member firms may wish to use alerts which identify unusually sized orders or unusually priced orders and **quotes** for the given stock. For instance, where a user wishes to slice an order into small sizes, the system would alert him/her to the fact that the order might be executed in fewer fills: and
- tranching facilities which reference the size of potential aggressive orders against passive orders already present on the **order book**.

The above list is not exhaustive and **member firms** are likely to wish to develop their own bespoke controls and system alerts to prevent the entry of orders and **quotes** which, because of their price, size or nature, could impact on the smooth running of the market.

The parameters for any such alerts should be determined by each **member firm**, with reference to the nature of its business. Parameters should be set at levels such that, if no alert is generated in relation to any particular order, then the **member firm** should be satisfied with the execution price(s) achieved.

**Member firms'** procedures and controls should be designed to ensure that orders and **quotes** are entered correctly and that any alerts generated are responded to appropriately.

#### Investigations

**Member firms** should be aware that in deciding what action to take against a **member firm** for the submission of any apparently erroneous orders or **quotes**, or inappropriate orders, the **Exchange** will consider both the potential and the actual market impact. It will also have regard to the relative frequency with which the **member firm** submits such orders or **quotes**.

(Amended N09/09 – effective 23 February 2009)

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| G | 2103 | A <b>member firm</b> may allow a <b>customer</b> to submit orders to <b>TradElect</b> <sup>®</sup> under the <b>member firm's</b> trading codes, either by way of <b>order routing</b> or by providing a <b>member authorised connection</b> , subject to the <b>member firm</b> having in place adequate systems and controls. |
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Guidance to Rule:

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#### Responsibility for **customers'** order flow (whether submitted to the **Exchange** via an **order routing** facility or a **member authorised connection**)

The **Exchange** is aware that **member firms** may have contractual arrangements with their **customers** that mean the **customer** bears the financial risks of entering erroneous or inappropriate orders. However, under the **Exchange's** Rules the responsibility for such orders rests wholly with the **member firm** under whose trading codes the order is entered.

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#### Order routing

Whilst ongoing education, training and guidance for a **member firm's** **customers** that route orders through the **member firm** to **TradElect**<sup>®</sup> are to be encouraged, these cannot entirely replace the safeguards that internal system controls and alerting functionality can provide.

In order to prevent the submission of erroneous and inappropriate orders by a **customer**, a **member firm** may wish to consider the following controls and system alerts:

- prevention of submission of an order if the **customer** has overridden alerts and/or notification to the **member firm** that the **customer** has attempted to over-ride the alert;
- the segregation of this order flow by the use of the Trader Group facility within **TradElect**<sup>®</sup>; and
- appropriate training, education and guidance provided to those **customers** entering orders.

**Member authorised connection**

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**Member firms** should ensure that their controls over **customers'** order flow submitted via **member authorised connections** are designed to identify and prevent the entry of erroneous and inappropriate orders or orders that may distort or otherwise adversely affect the quality of the **Exchange's** markets. In determining whether a **member firm's** systems are adequate in this regard, **member firms** should consider the use of controls and system alerts, which may be based on some or all of the following:

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| D | 2107 | The <b>Exchange</b> reserves the right to restrict or segregate a <b>member firm's</b> access to and use of <b>TradElect</b> <sup>®</sup> as it sees fit. |
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Guidance to Rule:

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For instance, where a **member firm** chooses to use only one or a limited number of **trader groups** for its order flow, and the **member firm** has repeated problems in relation to erroneous or inappropriate orders being entered by an **order routing customer**, the **Exchange** may require that all orders from that **customer** are assigned to a specific **trader group**.

(Amended N43/08 – effective 5 January 2009)