Tab 22

LONDON METAL EXCHANGE

LMEselect

Operating Procedures

Please respond to:

lmehelpdesk@lme.com

0207 488 2500

Contents

1 General

LMEselect operating procedures are part of the rules and regulations of the London Metal Exchange (LME). Members must also comply with these procedures and with the requirements for trading on LMEselect laid down in Part 3 of the Trading Regulations of the rules and regulations of the LME and in relevant LME notices.

LMEselect is an anonymous order matching system, which through the central LMEselect market allows LME members to trade electronically with other members that are also LMEselect members. Traders must enter, activate, inactivate, cancel, withdraw or amend before execution LMEselect orders in accordance with and in a form permitted by the LME rules, regulations and trading procedures, and in the manner set out in the operating procedures. Subject to local regulatory restrictions and approvals, members are able to access LMEselect from anywhere in the world.

LMEselect is a member to member trading system and is complementary to, rather than a replacement for, inter-member telephone trading or trading in the ring. Its use is not mandatory. An LMEselect trade results in Exchange Contracts in name of the clearing members that are counterparts to the trade. Members cannot use LMEselect to trade Client Contracts.

1.1 Order Routing

Cinnober Financial Technology AB, which developed LMEselect in association with the LME, also developed the Cinnober FIX Application Programming Interface ('API'), which supports order management and order routing. However, members should be aware that:

- the login belongs to the member;
- prices from LMEselect are sent via the Cinnober FIX API and members are required to sign a side letter to the sub licence agreement;
- the client of the member firm can see what is in LMEselect via the API;
- the member can see market data;
- member firms must stand behind any order placed in their name;

2 Connecting to LMEselect

In order to trade, members must connect to a valid LMEselect IP address. Members should contact the LMEselect Helpdesk (020 7488 2500) for connectivity advice.

LMEselect members have a minimum of two telecommunications lines diversely routed using alternate suppliers wherever possible. In most instances, these lines go to the main premises of the members and not to a separate location. If there is a communications fault on one of the two lines, the other line will still be available. If the building of a member experiences a communications failure, users can access the system via the Internet (VPN), which is how overseas traders may choose to connect for all their trading activity. Alternatively, members can revert to trading by telephone or use the ring. Should this prove necessary, members will need to ensure that they have suitable arrangements in place for recording the trades.

In order to safeguard the integrity of the LMEselect market, LME requires each member wishing to be an LMEselect member to gain accreditation from the LME and demonstrate a level of technical and operational readiness. LMEselect members must register at least one accredited trader with the LME in order to access LMEselect through a workstation.

2.1   Role of SAVVIS Communications Corporation

The LME awarded SAVVIS the contract for the provision of managed hosting and private networking services. The LME uses SAVVIS to support its electronic trading and matching operations in London and the remotely located member firms that use LMEselect and the matching system. SAVVIS also provides connections to the London Clearing House and The LME's disaster recovery facilities, hosts the LME Web site, and provides managed Internet services for the Exchange.

The LME provides SAVVIS with access to network components between the hub sites, the members, and the LME to allow it to supervise and report communications errors to the network provider. The LME is responsible for the generation and maintenance of all market related data, for the proper operation of LMEselect, including data related to traded instruments, member accounts, and user entitlements.

The LMEselect Helpdesk +44 (0)20 7488 2500; email: lmehelpdesk@lme.com deals with calls and enquiries received from members.

2.2   Proximity Hosting

The LME has entered into an agreement with two community data centres to provide an option to connect to the LMEselect platform via a low latency fibre network with a high speed link. This solution provides the LME members with the fastest possible access to LMEselect. For resiliency it is a requirement to have a secondary connection to the LMEselect system either through a lease line or a VPN connection.

2.3   Application Protocol Interface ('API')

Members can use the Cinnober FIX API to develop an interface between their proprietary software and LMEselect that will permit them to enter orders and route orders from their in-house systems. Cinnober is responsible for the correct functioning of the API, but all systems operation will be conducted by SAVVIS from a hosting perspective and the LME in terms of system administration. The member LAN and the systems at each member site are the responsibility of the members connected to LMEselect.

The API has been based on the FIX (Financial Information Exchange) industry standard, version 4.3 (FIX version 4.4 for LMEselect 7). It allows for the following order management functions at this stage:

- entry of new orders into LMEselect;
- changing of existing orders on LMEselect, but only if the original order was placed via the API;
- cancellation of existing orders on LMEselect, but only if the original order was been placed via the API;
- Receipt of execution report details from LMEselect for orders placed via the API; and
- The receipt of 'Order Cancel Reject' message from LMEselect in response to an 'Order Cancel' message sent via the API.

3 Members requirements

3.1 Eligible members

Only Category 1 and Category 2 members of the LME are eligible to become LMEselect members and to have direct access to the system. Members wishing to have access to LMEselect must apply to the Exchange, satisfy all requirements, and receive approval before they can connect to LMEselect.

3.2 Accredited users

Only traders accredited by the LME may enter orders to LMEselect. Traders eligible for accreditation must:

- be persons dealing on LMEselect on behalf of Category 1 or Category 2 members;
- satisfy the LME of their competence to use LMEselect;
- be registered with a regulatory organisation, as appropriate;
- meet any other requirements that the LME may set from time to time.

3.3 Controlling access

As only accredited users have the right under LME rules and regulations to trade on LMEselect, these users must keep their login usernames and passwords confidential, which are provided by the LMEselect Helpdesk. They must either logout from LMEselect or use a password-protected screensaver if they leave their LMEselect workstation unattended. Members must have controls in place to ensure that non-accredited persons do not trade on LMEselect. The LME will treat any failure by members to restrict trading on LMEselect to accredited traders as a serious breach of its rules and regulations. Members may allow non-accredited employees to view orders and trades of their traders. It is the responsibility of members to take appropriate steps to execute business in the case of failure of the LMEselect workstations of the member, or a failure of the supply of LMEselect to the member.

The relevant member's compliance officer must advise LMEselect Helpdesk where an accredited trader moves from one firm to another. It will de-register the trader with his old employer and register him with his new employer and issue the trader with a new username and password. On completion of this process the trader can deal on LMEselect for his new employer. Members must implement procedures and controls designed to ensure that they comply with the Trading Regulations in part 3 of the LME rules and regulations, and restricting access to LMEselect to accredited traders. Failure to implement adequate controls and procedures could lead to loss of accreditation for a trader or, in the most serious cases, to loss of access to LMEselect for the member.

3.4 LMEselect prices

Members must ensure the bid and ask prices that they input to LMEselect are consistent with bid and ask prices that they input to the vendor feed system.

4 LMEselect price data

To the extent permissible by law, the LME owns all intellectual property rights to all LMEselect order, price and trade information displayed on LMEselect. Members may not release to their customers LMEselect price, volume and trade data owned by the LME, unless they have signed and returned a

side-letter to the sub-licence agreement. The side letter, amongst other things, protects the LME's ownership of the data and controls its distribution.

4.1 LMEselect order and trade data distributed via quote vendors

Publication of the bids and offers and trades, together with aggregate volumes at those prices traded on LMEselect is in real-time and anonymous. LMEselect best bids and offers are published via quote vendors for all instruments traded on LMEselect, with the five best bids and offers being published for the three month prompt contracts. The quoted bids and offer available on LMEselect in respect of Metal options are for those strike prices based on the 'at-the-money' (ATM) strike value and all other valid strike gradations. Similar strike prices are quoted for Index options, but the quotes are for premium, not volatility. For TAPOS the bid and ask quotes are also for premium. Details of all trades executed on LMEselect are disseminated to quote vendors, including all options trades are published irrespective of the strike price of the option.

5 LMEselect Market Hours

5.1 Trading

The Table shows the times of trading available for alternative methods of trading on normal business days.

Time*	Telephone	LMEselect	Ring
00:00 – 01:00	o		
01:00 – 11:40	o	o	
11:40 – 17:00	o	o	o
17:00 – 19:00	o	o	
19:00 – 24:00	o		

*All market hours are London time.

On normal business days, LMEselect opens for trading at 01:00 and closes at 19:00. It is capable of opening for longer or shorter hours. If the Board of the LME changes the operating hours for LMEselect, members will be advised by way of LME Notices.

5.2 Market Messages

Market Messages are sent out to broadcast state changes or trade busts that have occurred or any other broadcast the LME helpdesk desk deems necessary to report to the market.

5.3 Pre-opening order management

Users can login to LMEselect at 00:30, and begin to enter, activate, inactivate, change or cancel orders at 00:45. LMEselect will timestamp these activities during the order management period with the central system timestamp in order to give the orders their due priority. However, trading only commences at 01:00. When trading begins, orders brought forward from the previous business day appear automatically in the LMEselect market, retaining their order priority. However, traders should note that amending the price or increasing the volume of existing orders results in LMEselect treating the orders as new orders time stamped at the time that the trader activated the amendment. At the end of trading on any given business day, LMEselect deletes all inactivated orders, all activated but

unfilled DAY orders from the system, and all orders that are no longer valid. All GTC orders remain in the system. Valid activated orders retain their activation timestamp.

5.4   Post Trading

Although trading on LMEselect ends at 19:00, users can still login but only until 19:30. After the close of trading on LMEselect, users can export copies of the Order History, Trade History, Trade Ticker, Market Statistics, Trade Statistics, and Market Messages to Excel. Users can also export the information from these pages for the last 5 (Select 7) business days. Hence, it need not be done nightly. After 20.00, overnight processing begins, during which LMEselect deletes all unfilled orders that are no longer valid, for example DAY orders. Activated GTC orders remain available for the trading session on the next business day.

6   Orders and Order Entry

6.1   Member responsibility

Members are responsible for all orders entered to, and all trades made on LMEselect. The onus is on members to apply controls on their users and employees. Hence, they must ensure that only accredited users login to LMEselect. As members are responsible for the actions of their employees and anyone acting on their behalf, any orders entered to the system using an authorised login and password are valid orders. Orders shall be in a multiple of the minimum lot size as determined by the LME from time to time.

6.2   Matching algorithm and order ranking

LMEselect matches orders when:

- one order is a bid and one an ask,
- the orders are for the same instrument and date, and
- the price of the bid is equal to or greater than the price of the ask
- The price of the ask is equal to or less than the price of the bid

Traders must advise LMEselect Helpdesk (+44 (0)20 7488 2500; email: lmehelpdesk@lme.com) promptly if LMEselect fails to show or shows incorrect information relating to their orders or trades resulting from their orders. LMEselect holds activated orders in a queue for execution in price and time priority. It ranks (prioritises) orders by price then time, with the highest bids and lowest ask price receiving the highest priority, ranked by the time at which they became active orders in the LMEselect market. Orders lose their priority if there are any changes made to the price, or if there is an increase in the volume of the order. LMEselect will timestamp new orders on their activation. The orders retain that timestamp until cancelled, inactivated, or amended by the trader changing the instrument, price or increasing the volume.

LMEselect treats increasing the size of an order or changing its price as the deletion of the order and the creation of a new one. Consequently, its price and time ranking will depend on the time of activation of the amendment. Decreasing the size of an order, altering its validity, or modifying information in the Client or Info boxes does not affect the ranking of an order.

Example
If trader A enters an order to buy 10 lots of copper for $1,900 and simultaneously trader B enters an order to buy 10 lots of copper for $1,901, the order of trader B is the highest ranked order. If trader C subsequently enters an order to buy 50 lots of copper for $1,901, his order is below that of trader B in

time priority, but above that of trader A in price priority. Once a trade results from LMEselect matching a bid and offer, in whole or in part, there is no right of withdrawal.

6.3   Valid LMEselect orders

All activated LMEselect orders are valid and available for trading where:

- the member is an approved LMEselect member;
- the trader is an LMEselect accredited trader;
- the instrument is available for trading;
- the minimum order size is 1 lot but less than 9,999 lots for a single order.
- the price complies with the minimum price fluctuation limits, for example, 25 cents for Aluminium

6.4   Validity of orders

Valid, activated LMEselect orders are firm with respect to price and volume to all other members until:

- Traded. Where orders trade in part, the balance unfilled remains as an activated order.
- Inactivated or cancelled by the member that entered the order
- LMEselect deletes DAY and Ring 1 orders not traded at the end of the last trading session for the relevant order validity.
- Amended by the trader increasing the volume or changing the price of orders.
- Inactivated by the loss of connection to a workstation. (NB GUI Orders remain activated for 60 seconds after the loss of the connection. Traders should always consider inactivating orders before logging off to avoid unexpected trading of orders.)
- LMEselect removes all inactivated orders from the Orderbook after the close of trading for the day.

6.5   Acceptable order types

6.5.1   Rest of Day (DAY)

Dealers may enter DAY orders. At 19:30, LMEselect deletes automatically all activated and inactivated DAY orders not traded during the business day. If the dealer wants them to be available for trading on the following business day, it is necessary to re-enter and activate them as new DAY orders on the following business day. LMEselect timestamps such orders with the activation time of the new order.

6.5.2   Good 'til cancelled (GTC)

Traders may enter GTC orders for Cash and three-month prompts only. LMEselect carries forward automatically all activated GTC orders not executed during the trading day to the next business day as activated orders. They retain their timestamp and order priority. LMEselect will delete any inactivated GTC orders after the close of trading for the day.

6.5.3   Ring 1

Ring 1 orders are good solely until the commencement of dealings in Ring 1 at 11:45. LME Select deletes automatically any Ring 1 orders unfilled at the commencement of open outcry trading in the Ring.

6.6   Orders for outrights

Traders can only input orders for all prompt dates available for trading on LMEselect. LME Select will automatically roll prompt dates at midnight London time.

6.7   The basis price for Carries

It is possible to trade on LMEselect all carries that are available for trading on the LME. Traders wishing to enter orders for carries do so through the Enter Order window. LMEselect matches a carry lend with a carry borrow and calculates automatically the basis price for all matched carry trades transacted via the system based on the current 3-month price. There are two stages required to calculate the relevant prices. First, it is necessary to calculate the 3-month price by taking:

- the current LMEselect 3-month bid price where this is higher than the last LMEselect traded price for the 3-month prompt; or
- the current LMEselect 3-month ask price where this is lower than the last traded LMEselect price for the 3-month prompt; or
- the last LMEselect traded price for the 3-month prompt where there are no LMEselect bid or ask prices for the 3-month prompt or where the bid (ask) price is lower than (higher than) the last LMEselect traded price for the 3-month prompt; or
- the LME closing price for the 3-month prompt date on the previous business day where there is no bid, offer or trade in that prompt on LMEselect.

If the carry is wholly before the 3-month prompt date, the calculation of the price differential from the 3-month price will be as for the calculation of the 3-month price. This will allow the calculation of the price for the second prompt date, with the price of the first prompt date being derived by subtracting the carry price from the calculated price for the second prompt date.

If the carry straddles the 3-month prompt date, the calculation of the price differential from the first prompt date to the 3-month price will be as for the calculation of the 3-month price. This will allow the calculation of the price for the first prompt date, with the price of the second prompt date being derived by adding the carry price to the calculated price for the first prompt date.

If both dates for the carry are after the 3-month prompt date, the calculation of the price differential from the first prompt date to the 3-month price to the second prompt date will be as for the calculation of the 3-month price. This will allow the calculation of the price for the first prompt date, with the price of the second prompt date being derived by adding the carry price to the calculated price for the first prompt date. If the carry is a TOMNEXT or a from TOM trade, the basis price will be the previous day's Settlement Price for the TOM date.

6.8   Instruments available for trading on LMEselect are:

6.8.1   LME Metal Instruments

Traders can trade all LME Metal Instruments for all permissible outrights and carries. Trading is in US Dollars only.

6.8.2   LME Index Instruments

Traders can trade LMEX futures for all prompt dates.

6.8.3   LME Exchange Options and Index Options

Traders can trade LME Exchange Metal Options and LMEX Options for all series, that is, for all strike prices and months. Trading is in volatility with automatic calculation of, and trading of, the delta hedge.

6.8.4   LME TAPOS

Traders can trade LME Traded Average Price Options for all series where the strike prices are the same as those available for LME Exchange Metal Options.

7   Trading

7.1   Trading against a carry to a strip

If the trader hits a carry that is for the 3-month date against a strip, the volume entered is the amount of each of the forward dates that he wishes to buy (sell), and LMEselect calculates the volume for the 3-month date by multiplying the entered by the number of forward dates in the carry. Hence, if the volume for an order is to borrow (buy) 5 lots for the AHD3M-1Y12 carry, a trade would result in the trader buying 60 lots for the 3-month date, and selling 5 lots for each third Wednesday of each month of 2012.

The price entered for a carry reflects the price differential between the nearby date and the forward date(s). If the order is to borrow (buy) 5 lots of the AHD3M-1Y12 carry at a contango of $56, a trade could result in the trader buying 60 AHD3M for $1,385.00 and selling 5 lots for each third Wednesday of 2012 at a price of $1,441.00.

7.2   Interest rates used for option pricing and the delta hedge

Each morning, LME staff input to LMEselect US Dollar interest rates for all available prompt dates. LMEselect will use these rates when converting options trades in volatility to premiums for publication in the Trades and Ticker windows. It will also use these in the Modified-Black 1976 options pricing model to calculate the number of forward contracts needed to create the delta hedge at the time of trade.

7.3   Option Trades and the Delta Hedge

Traders can trade against standard metal and index options and TAPOS from the Price Information, Order Depth and Price Depth windows. TAPOS orders are always quoted in premium, while the standard option quotes are in volatility. To trade against a quote, traders should treat options and TAPOS in the same way as a forward or a carry. However, for standard option trades, that is, not TAPOS trades, LMEselect automatically calculates the delta hedge for the option and executes a simultaneous trade in the underlying forward. The premiums and the delta are calculated using the Modified-Black 1976 options pricing model used by the London Clearing House to calculate theoretical option prices.

7.4   Order to Trade Ratio

The LME enforces an order to trade ratio policy which has been designed to ensure an orderly conduct of trading on LMEselect and to protect LME and member systems. This policy is amended from time to time so please check the latest notice.

7.5 Message Throttling

The LME has introduced a throttling limit which will limit the maximum number of order entry/updates that can take place in a given second for each LMEselect FIX key or GUI user. Please check the latest notice for the current throttle limit. Order entry/updates submitted in excess of the limit in any given second will be queued by the system and smoothed over the following seconds according to the throttling limit maximum. Transactions will not be rejected.

8   Automated matching of LMEselect trades

Members can export trade history from the Trade History window. This provides essential trade information required by members for their audit trail. LMEselect sends all trades executed on it to the LME Matching System (LMEsmart) for automatic matching as trade type 'BB'. LMEselect allocates a unique reference of up to 10 digits (that is sent to LCH) to each half trade, so that an outright, average or multi-leg carry will all be designated by the same reference number.

The LCH Match number is available in the Trade history window. The LMEselect reference number will also be visible in the private or trade reference field of the LMEMS. As the private reference field is populated by the unique reference number, it is not available for member use for LMEselect trades. Members must ensure that their back office systems do not attempt to process LMEselect trades as this will result in duplication. The LCH clearing process is not affected by LME Select, so trade suspensions, etc. will still operate.

LMEselect has a buffering mechanism that accrues trades made after the closure of LCH at 20:00 hours, although it is anticipated that all trades will be processed during the day. LMEselect will send buffered trades to LCH when it is next open. The LME will undertake to ensure that all trades in LMEselect are matched at the LCH. If problems arise in the interface the LME will liaise with the LCH to process the trades. The LME will only contact the members if it is necessary to bust a trade, that is, if LMEselect contains an erroneous LME contract, such as a non-valid prompt. Any order that is 'hit' in LMEselect will result in an LME Contract, either via automated matching or via the intervention of the LME. Should a member wish to correct/cancel a trade they should follow the correction procedure as set out in LME Notice 06/246: A242. In ensuring that trades within LMEselect are matched, the LME is neither changing the relationship nor creating additional liability between members, the LCH and itself, but merely ensuring that the intention of the members that a trade in LMEselect results in a LME Contract is carried out.

9   Supervision of LMEselect

The LME monitors and controls the operation of LMEselect, order entry and trading through the system. Its primary function is to monitor all trading and positions of members and their customers. It also ensures that business conducted by means of its facilities takes place in an orderly manner and gives proper protection to investors. This is irrespective of whether the trading takes place by telephone, in the ring, or on LMEselect.

The LME is responsible for:

- issuing usernames and passwords to accredited users.

- activating and inactivating members and accredited users for regulatory reasons

- monitoring of compliance with LME rules, regulations and procedures by LME members

- monitoring LMEselect trading sessions to ensure that all trading takes place in accordance with the rules and regulations of the LME.

- reviewing relevant controls and procedures in place at members

- suspending trading in event of:

  - systems failure;

  - a technical failure or failures including, but not limited to, failures of a part of the central processing system, or of a number of member trading applications, or of electrical power failure to the system or any related systems, or of communications

  - an Act of God or some other event outside the control of the LME

  - any reason that the LME warrants necessary.

  - agreeing to the deletion, correction, or cancellation of invalid or disputed trades made on LMEselect, and broadcasting details of this to members.

The LME shall have the right to suspend access for members or accredited users in order to prevent damage to LME systems or to prevent interference with orderly trading or for any other reason.

9.1   Suspension of trading

On suspension of trading, the LME will notify LMEselect members through a Market Message. When the LME suspends trading, all orders that remain unmatched in the LME Select market are automatically withdrawn and no new orders accepted. If the LMEselect market is re-enabled subsequently, there will be a fifteen-minute pre-opening order management period before the return of trading.