

To: All warehouse companies

Cc: All members, London agents & other interested parties

Ref: 14/298 : A290 : W142

Date: 8 October 2014

Subject: **PROPOSED IMPLEMENTATION OF THE LINKED LOAD-IN / LOAD-OUT RULE – CONSULTATION WITH WAREHOUSES PURSUANT TO WAREHOUSE AGREEMENT**

## Summary

1. The LME is pleased to note today's decision by the English Court of Appeal (the "Court of Appeal"), which will allow the LME to proceed with its stated programme of reform of its physical warehousing network.
2. Further to the Court of Appeal's decision, and pursuant to the warehouse agreement, the LME is today launching a two week consultation with LME listed warehouses pursuant to the warehouse agreement regarding the LME's intention to implement a linked load-in / load-out rule. This is set out in the attachment to this Notice "LME Policy Regarding the Approval of Warehouses, Revised 1 February 2015" (the "LILO Rule"), which the LME proposes will apply to LME listed warehouses in accordance with the timetable outlined below.
3. Capitalised terms not defined in this notice have the meaning given to them in the LILO Rule.

## Background to the LILO Rule

4. On 1 July 2013, the LME announced (in Notice 13/208 : A201 : W076) a consultation in respect of queues at LME listed warehouses (the "2013 Consultation"). In particular, the 2013 Consultation proposed the introduction of a linked load-in / load-out rule (the "Proposal"). The 2013 Consultation was an extensive three month market-wide consultation with market participants, including the LME listed warehouses. It involved the LME:
  - (a) discussing the Proposal with various sub-committees of the LME;
  - (b) receiving written responses from market participants on the Proposal;
  - (c) discussing the Proposal at a press conference and other industry fora;
  - (d) conducting meetings with over 70 market participants worldwide; and



- (e) considering all of the feedback and responses provided by the aforementioned interaction.
5. On 7 November 2013, the LME announced in Notice 13/326 : A312 : W125 (the “Decision Notice”) the outcome of the 2013 Consultation, including the adoption of the Proposal as originally proposed, with one modification<sup>1</sup> and certain clarificatory drafting changes (the “2013 LILO Rule”), together with a set of other measures. On 7 November 2013 the LME also published a comprehensive report on the 2013 Consultation (the “2013 Consultation Report”).
  6. On 27 March 2014, the English High Court of Justice (the “High Court”) announced its decision to quash the adoption of the 2013 LILO Rule (the “High Court Judgment”). Accordingly – as set out in Notice 14/106 : A103 : 046 (the “JR Notice”), this has not been introduced.
  7. The JR Notice contemplated that the 2013 LILO Rule, or a modified version thereof, could still be implemented at some point in the future and that, were the LME to later implement the 2013 LILO Rule or a modified version, the LME may, subject to any comments received in the future, implement such a rule with a Preliminary Calculation Period commencing on 1 July 2013.
  8. On 8 October 2014, the Court of Appeal allowed the LME’s appeal against the High Court Judgment (the “Court of Appeal Judgment”). The Court of Appeal unanimously found in favour of the LME on all grounds. In handing down the Court of Appeal Judgment, the Court of Appeal overturned the High Court’s decision to quash the LME’s implementation of the 2013 LILO Rule. The Court of Appeal has denied Rusal leave to appeal to the Supreme Court and has also denied Rusal’s request to stay the Court of Appeal’s setting aside of the High Court’s decision to quash the adoption of the 2013 LILO Rule.
  9. Given that the LILO Rule is substantially the same as the 2013 LILO Rule (save for some minor clarifications and date adjustments), the LME does not have a regulatory or public law obligation to re-consult with the market – that obligation was discharged by the 2013 Consultation. However, under clause 9.11.4 of the warehouse agreement, the LME is obliged to consult with warehouse companies for a “reasonable period” prior to the introduction of any proposed change would have the effect of materially increasing the obligations of any warehouse (which would include the LILO Rule). The LME believes that a two week consultation period on the LILO Rule is reasonable given that:
    - (a) it supplements the extensive three month consultation already held with market participants, including LME listed warehouses, during the 2013 Consultation on the 2013 LILO Rule; and
    - (b) the LILO Rule is substantially the same as the 2013 LILO Rule (save for some minor clarifications and date adjustments).

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<sup>1</sup> An altered queue threshold.



10. The LME intends to implement the LILO Rule because it believes that it represents the most effective measure to address the issues referred to above, and because it is considered superior to other measures which have been considered by the LME, including those referred to in section 6.5.2 of the 2013 Consultation Report.

### **Current State of Queues**

11. Based on publicly available commentary, the LME understands that market conditions have changed since the 2013 Consultation – with, in particular, a greater demand for metals (especially aluminium) from industry. However, the LME also understands that an element of primary production continues to flow into storage – and, in the absence of regulation by the LME, it is to be expected that a significant element of such production would have continued to be loaded into Affected Warehouses.
12. In particular, the LME believes that the behavioural change exhibited by Affected Warehouses since 1 July 2013 would not have come about had those warehouses not anticipated the introduction of some form of rule-making by the LME.
13. Furthermore, while queues at some warehouses have decreased significantly or disappeared entirely, the queues at Metro Detroit and Pacorini Vlissingen continue to entail long waiting times for the availability of metal, and the shrinkage of these queues cannot be guaranteed in the absence of the LILO Rule or other measures, given a market environment where at least some amount of metal production continues to flow to storage. As a result, the LME believes that the current market conditions and persistence of significant queues still warrants the adoption of the LILO Rule to address the queues.
14. For more information on the current state of queues and market conditions, please see paragraphs 9-18 in Notice 14/276 : A268 : W136 (the “September Update Notice”).

### **The LILO Rule - Minor Clarifications and Timing Adjustments to the 2013 LILO Rule**

15. The LME is proposing the LILO Rule in substantially the same form as the 2013 LILO Rule, with certain minor modifications. The LME believes the LILO Rule represents an appropriately-balanced course of action for the market.
16. The full form of the proposed LILO Rule is set out in the attachment to this notice, as part of the revised Policy on the Approval of Warehouses. Attached to this notice is a clean copy of the proposed revised Policy and also a version showing the changes against the version of the Policy currently in force.
17. The key changes to note from the 2013 LILO Rule announced on 7 November 2013 are as follows:
  - (a) minor clarificatory change to make clear that “Decay Factor” is 0.5 and the “Queue Threshold” is 50 days;
  - (b) minor changes indicating which text denotes defined terms in paragraphs 2, 3 and 4 of Section F;



- (c) the Preliminary Calculation Period shall be the period between 1 July 2013 and 31 January 2015, inclusive;
- (d) the First Calculation Period shall be the period between 1 February 2015 and 30 April 2015 inclusive;
- (e) each subsequent Calculation Period shall be the three months immediately following the preceding Calculation Period. By way of example, the Second Calculation Period shall be the period between 1 May 2015 and 31 July 2015, inclusive (being the three months immediately following the First Calculation Period);
- (f) the Preliminary Discharge Period, which will apply in relation to the Preliminary Calculation Period, will be the three month period between 1 March 2015 and 31 May 2015, inclusive;
- (g) the First Discharge Period and subsequent Discharge Periods are set by reference to the adjusted Calculation Periods;
- (h) the definition of Normal Daily Minimum Load Out Rate has been clarified;
- (i) clarificatory drafting changes have been made to paragraph 4 of Section F, including (i) the introduction of the terms “Incremental Load-Out Requirement” and “Cumulative Incremental Load-Out Quantity” in order to simplify interpretation, (ii) replacement of the terms “Total Load-In” and “Total Normal Minimum Load-Out” by “Cumulative Load-In” and “Cumulative Normal Minimum Load-Out” respectively (these were typographical errors from the 2013 LILO Rule), and (iii) general drafting changes. The substance of the Rule has not been altered as a result of these changes;
- (j) minor clarificatory drafting changes have been made to paragraph 5 of Section F, to clarify that the obligation to load out the Incremental Load-Out Requirement is in addition to the load-out obligations in accordance with Section C of the Policy;
- (k) a provision has been added at paragraph 6 of Section F allowing the LME to adjust the Decay Factor and/or Queue Threshold either on a market-wide basis or on a per-warehouse basis in order to enhance the orderly functioning of the market or to prevent abusive behaviour or for any other reason. This power was noted in the Decision Notice dated 7 November 2013, but it is now considered preferable for it to be explicit within the Policy; and
- (l) minor changes have been made to the worked example of the calculation at paragraph 7 of Section F to reflect the changes above.

### **Timing and steps of implementation**

18. Subject to the consultation, the proposed timeline for implementation of the LILO Rule is as follows:



- (a) 8 October 2014 - two week consultation with warehouse companies on the LILO Rule commences;
- (b) Not later than 31 October 2014 - decision announced and market given not less than 90 days' notice ahead of implementation of LILO Rule; and
- (c) 1 February 2015 - LILO Rule implementation date.

### **Responding to the Consultation**

19. The LME seeks the views of warehousing companies in respect of the LILO Rule. Responses to the consultation should be made in writing by email to Georgina Hallett ([consultation@lme.com](mailto:consultation@lme.com)), no later than close of business on **22 October 2014**. Responses made after this date will not be taken into consideration. Alternatively, or in addition, the LME will make itself available during this period for reasonable requests for meetings with warehouse companies in person at the LME or by teleconference.
20. Following due consideration, the LME may either:
- (a) implement the LILO Rule;
  - (b) implement a modified version of the LILO Rule; or
  - (c) not implement the LILO Rule.
21. The LME may need to share responses received with regulatory authorities or its legal or other professional advisers, or as required by law. Apart from this, all responses received will be treated in confidence.

### **Next Steps**

22. As further described in the September Update Notice, and following the announcement of the outcome of this consultation, the LME will publish further information in respect of the other items it has committed to discuss with the market, namely (i) re-assessing the possibility of capping or banning rents in queues, (ii) re-assessing the possibility of capping the level of daily rents and FoTs, (iii) the warehousing logistical review, (iv) the warehouse agreement legal review, and (v) the rules required to support premium futures contracts.
23. In particular, certain of these other items will give rise to a market-wide consultation on further warehouse reforms, including further changes to the Policy on Approval of Warehouses. This may involve further minor changes to the LILO Rule (for example, but without limitation, if defined terms are introduced across the Policy for consistency), but the LME does not envisage (subject to comments received during the consultation with warehouse companies instigated by this Notice) making further substantive amendments to the LILO Rule as a result of the consultation.



**Matthew Chamberlain**  
**Head of Business Development**

cc: Board directors

User Committee  
Physical Market Committee  
Warehousing Committee  
All metals committees

Attachment –

Proposed Policy on Approval of Warehouses including the LILO Rule (clean copy and blackline against version currently in force)

**LME POLICY REGARDING THE APPROVAL OF WAREHOUSES,  
REVISED 1 FEBRUARY 2015**

**A) Warehouse companies**

Warehouse companies will be considered for listing in an existing or new location subject to completion of a warehouse agreement application form supported by evidence of insurance, capital adequacy and other documents as detailed by the LME from time to time. Inspection of premises offered for warehousing to the LME will take place prior to any listing to ensure they suit the logistical nature of the location as required by the LME. The LME will state its needs in this respect when sending the applicant the application form.

**B) Warehouses**

1. Road connection to major highways is mandatory.
2. Rail loading facilities adjacent to the warehouses will be required if, in the opinion of the LME, this service is routinely required by the metals trade. Warehouses without direct rail connections in such locations may be considered for listing if it can be demonstrated that adequate shuttle services to the rail head are provided by the warehouse company at its own cost and risk.
3. Water loading facilities adjacent to the warehouse or otherwise will be treated in the same way as rail.

The LME, respecting such confidentiality as it deems necessary and appropriate, will undertake its own enquiries, as it sees fit, from its members/trade entities etc. to evaluate any applications prior to submission to EXCOM for consideration.

**C) Common standards of working practices and facilities for warehouses**

1. For each 2500m<sup>2</sup> of space (not including open storage compounds for steel) there must be access by means of an operational door for vehicle loading/unloading, with a minimum of 2 doors per warehouse.
2. The minimum daily delivery tonnage must be in accordance with the tables below. Where the delivery requests exceed the minimum daily delivery tonnage for the capacity on the table below, the LME will regard the standard as applying over the number of days necessary to complete the deliveries, as per the table (e.g. if the requests for the delivery of 2000 tonnes apply to a warehouse's location capacity of 2500 sq. metres, the standard would be to deliver in 3 days with no reference to the performance on any one of those days). The LME would, however, expect the warehouse company to act reasonably when allocating the tonnage delivered out in each of those days.



warehouse company's authorised space per location, in m <sup>2</sup> (excluding steel storage facilities)	minimum daily delivery tonnage for all metals (excluding cobalt, RMC and steel)
2,500	800 tonnes
5,000	1,200 tonnes
7,500	1,500 tonnes

The above table applies to all companies who are storing up to 300,000 metric tonnes of metal. For companies who are storing 300,000 metric tonnes and above the following table is applicable

warehouse company's tonnage stored per location (excluding steel)	minimum daily delivery tonnage for all metals (excluding cobalt, RMC and steel)
300,000 tonnes to 599,999 tonnes	2,000 tonnes
600,000 tonnes to 899,999 tonnes	2,500 tonnes
900,000 tonnes and over	3,000 tonnes

NB: The daily delivery tonnage is for deliveries out only and does not include deliveries in.

3. Where a warehouse company's tonnage stored increases beyond any of the 300,000, 600,000 or 900,000 tonnes thresholds, the applicable revised minimum daily delivery tonnage shall have effect from the date which is 30 days from the date the threshold is passed. This will allow the warehouse company to implement the necessary scheduling changes in order to meet the increased minimum daily delivery tonnage. However, where a warehouse company's tonnage stored falls beneath any of the 300,000, 600,000 or 900,000 tonnes thresholds, a warehouse company will still be required to deliver out all outstanding deliveries scheduled on or prior to the date the tonnage falls beneath such threshold.
4. In addition to the daily rates stipulated above and below, a warehouse company in any location who satisfies the following conditions:-
  - (a) the warehouse company has scheduled delivery out commitments of 30,000 metric tonnes or more; and
  - (b) a minimum of 30,000 metric tonnes of those scheduled commitments are for one metal (the "dominant metal");shall be required to deliver out a minimum of 500 metric tonnes per day in that location of metals other than the dominant metal, provided that such deliveries are requested.
5. In addition to the daily rates stipulated above and below, warehouse companies delivering out the minimum rates stipulated above and below will be required to deliver out an additional, combined tonnage of tin or nickel, or a combination of both metals, in order to ensure that at least 60 tonnes of these metals is being delivered out each day. For the avoidance of doubt, the extra 60 tonnes would



only be required to be delivered out if the warehouse company had reached its minimum daily load out rate (whether or not the requirement in paragraph 4 above has been triggered) and not delivered out 60 tonnes per day of tin and/or nickel as part of these deliveries.

6. The daily delivery out rate does not include deliveries out for cobalt and roasted molybdenum concentrate (RMC). Any deliveries out for either of these metals must be in addition to the rates stipulated in the above table.
7. The daily delivery out rate does not include deliveries out for steel billet. For each location in which it is licensed to store steel billet, a warehouse company must load out in accordance with the minimum requirements stipulated in the tables below, provided demand is present.

warehouse company's authorised space per location, in m <sup>2</sup> (steel storage facilities only)	minimum daily delivery tonnage for steel
2,500	800 tonnes
5,000	1,200 tonnes
7,500	1,500 tonnes

The above table applies to all companies who are storing up to 300,000 metric tonnes of steel. For companies who are storing 300,000 metric tonnes and above the following table is applicable:

warehouse company's tonnage stored per location (steel only)	minimum daily delivery tonnage for steel
300,000 tonnes to 599,999 tonnes	2,000 tonnes
600,000 tonnes to 899,999 tonnes	2,500 tonnes
900,000 tonnes and over	3,000 tonnes

8. The LME recognises that it may not be possible to achieve exactly the same delivery rates if delivery into containers, vans or railcars is required. In assessing a warehouse company's performance, the circumstances will be taken into account.
9. Once all formalities permitting delivery have been completed the warehouse shall prioritise all requests for deliveries out on the basis of 48 hours notice and strictly in the order in which they are received, unless the Warrant holders seeking cancellation agree otherwise.
10. In addition to their rent and FOT charges, warehouse companies are also required to supply the LME with a comprehensive set of charges for delivery out of warranted metal and will undertake to immediately advise the LME of any changes thereto. Warehouse companies are also required to submit to the LME compulsory port tariffs for the import and export of metal.



11. There should be no charges above the FOT for returning the metal to the warehouse companies approved and nominated loading berths within the location where the LME discerns a need for such transportation; the unloading of such metal from the truck being for the receiver's account.
12. Similarly there should be no charges above the FOT for returning metal to the nearest railhead where the LME discerns a need for such transportation.
13. Warehouse Companies are reminded that, in general, the daily delivery tonnages set out in this policy are minimum delivery out requirements, not minimum scheduling requirements. However, metals owners are also reminded of their obligations in respect of observing reasonable logistical arrangements in respect of metal collection. In particular, in the event that no metal owner wishes to avail themselves of a delivery slot offered on a reasonable basis, a warehouse operator will be permitted to count the tonnage which would have been delivered in that slot towards delivery out.

With the exception of the FOT charge and port tariffs for the export of metal the warehouse company may not impose any compulsory additional charges when delivering metal out.

#### **D) Continued compliance with the LME policy for warehouses**

1. In the event that an existing approved warehouse/warehouse company does not appear to meet the LME's criteria, there will be an initial consultation with the warehouse company concerned.
2. If the warehouse company can demonstrate that it will upgrade facilities or work practices to meet the LME's new standards, the LME will consider the appropriate amount of time to allow for such a process. Warehouses could, for example, be given, say, 6-12 months to upgrade their facilities or relocate to a more suitable building within the location, but this would be determined on a case by case basis, according to the circumstances.
3. If after consultation the warehouse company is unwilling or unable to upgrade its facilities or work practices to meet the LME's standards, the LME retains the right to restrict the capacity of that warehouse company in that location or even delist it. In particular, if a warehouse company fails to comply with the Linked Load-In and Load-Out Requirements per Section F, then the Board may (among other actions) restrict the ability of that warehouse company to create warrants in that location until load-in and load-out are brought into alignment pursuant to the requirements.
4. Prior to implementation, the LME would give the necessary notice of any action to be taken to the warehouse company and allow for formal representations to be made.



## **E) Review of LME policy for warehouses**

This policy will be reviewed at least on a biennial basis

## **F) Linked Load-In and Load-Out Requirements**

### **1. Principle**

The general principle of this requirement is to link load-in and load-out for Warehouses with queues of greater than 50 calendar days (the “**Queue Threshold**”).

### **2. Definitions**

A Warehouse (“**Warehouse**”) is all of the LME-licensed storage facilities operated by a particular warehousing company in a particular LME good delivery location.

In relation to a particular Warehouse, a Business Day (“**Business Day**”) is any day on which that particular Warehouse is operating and subject to the current LME minimum load-out requirement.

The Preliminary Calculation Period (“**Preliminary Calculation Period**”) shall be the period between 1 July 2013 and 31 January 2015, inclusive.

The First Calculation Period (“**First Calculation Period**”) shall be the period between 1 February 2015 and 30 April 2015, inclusive.

Each subsequent Calculation Period (“**Calculation Period**”) shall be the three months immediately following the preceding Calculation Period. By way of example, the Second Calculation Period (“**Second Calculation Period**”) shall be the period between 1 May 2015 and 31 July 2015, inclusive (being the three months immediately following the First Calculation Period).

The Preliminary Discharge Period, (the “**Preliminary Discharge Period**”) which will apply in relation to the Preliminary Calculation Period, will be the three month period between 1 March 2015 and 31 May 2015, inclusive.

For each subsequent Calculation Period, the related Discharge Period (i.e. the period during which the Incremental Load-Out Requirement calculated in accordance with paragraph 4 below must be met) shall be the three month period starting on the date one calendar month following the end of that Calculation Period (the “**Discharge Period**”).

By way of example, the First Discharge Period shall be the period between 1 June 2015 and 31 August 2015, inclusive (being the three month period starting on the date one calendar month following the end of the First Calculation Period) (the “**First Discharge Period**”).

In relation to a particular Warehouse on any given Business Day, the Normal Daily Minimum Load-Out Rate is the amount of metal required to be loaded out according



to the LME requirements set out in Section C of this Policy (the “**Normal Daily Minimum Load-Out Rate**”) as follows:

- (a) If, on the Business Day in question, a Warehouse is required to make an additional load-out of non-dominant metal (pursuant to paragraph 4 of Section C above), such additional load-out will be counted towards the Normal Daily Minimum Load- Out Rate for the Business Day in question.
- (b) If, on the Business Day in question, a Warehouse is required to make an additional load-out of nickel and tin (pursuant to paragraph 5 of Section C above), such additional load-out will be counted towards the Normal Daily Minimum Load-Out Rate for the Business Day in question.
- (c) Load-out of cobalt and roasted molybdenum concentrate (“**RMC**”) (paragraph 6 of Section C above) and steel billet (paragraph 7 of Section C above) will not be counted towards the Normal Daily Minimum Load-Out Rate, given that these metals are treated separately for the purposes of Warehouse load-out rates.

Re-warranted Metal (“**Re-warranted Metal**”) is metal in respect of which a warrant has been cancelled, but has not been loaded out of the Warehouse (due to the presence of a queue or other operational constraint), and in respect of which the metal owner has requested that the Warehouse issues a new warrant (and hence reverses the original request to deliver out that metal).

### 3. Affected Warehouses

On any given Business Day, an Affected Warehouse is a Warehouse with a queue of greater than the Queue Threshold (the “**Affected Warehouse**”). Queue lengths will continue to be measured and reported to the LME by warehouse operators, with the LME continuing to exercise oversight in respect of such measurements. For the avoidance of doubt, to the extent that a Warehouse has scheduled deliveries pursuant to any Incremental Load-Out Requirement arising per this policy, then the queue length may take into account such incremental scheduled deliveries.

### 4. Calculating the Incremental Load-Out Requirement

The Incremental Load-Out Requirement shall mean the additional amount of metal that must be discharged by a Warehouse during the course of the relevant Discharge Period, over and above the load-out required by the Normal Daily Minimum Load-Out Rate on each day of that Discharge Period (the “**Incremental Load-Out Requirement**”). The Incremental Load-Out Requirement is derived on the final day of the relevant Calculation Period, as set out more fully in this section F, paragraph 4.

- (a) During the Preliminary Calculation Period, each Warehouse shall maintain the calculation of its Cumulative Incremental Load-Out Quantity which is the quantity set to zero at the beginning of the Preliminary Calculation Period and increased incrementally on each Business Day of the Preliminary Calculation Period by the process set out in this section F, paragraph 4(a) (the “**Cumulative Incremental Load-Out Quantity**”).



During the Preliminary Calculation Period, on each Business Day, the following value will be added to the Cumulative Incremental Load-Out Quantity:

*the amount of new metal placed on-warrant in the Warehouse on the Business Day in question (which, for the avoidance of doubt, shall not include Re-warranted Metal)*

**less**

*the **higher of** (i) the Normal Daily Minimum Load-Out Rate, and (ii) the actual amount of metal loaded-out of the Warehouse on the Business Day in question – provided that, for the purposes of (ii), load-out in excess of the Normal Daily Minimum Load-Out Rate which is made to compensate for a shortfall in load-out on a previous or subsequent Business Day (due, inter alia, to scheduling variations within a single load-out request per paragraph 2 of Section C above) shall not count towards the actual amount of metal loaded-out of the Warehouse*

On the final Business Day of the Preliminary Calculation Period, a Warehouse shall establish whether it is an Affected Warehouse at the end of that Business Day. If (i) the Warehouse is not an Affected Warehouse, or (ii) the calculated Cumulative Incremental Load-Out Quantity is less than or equal to zero, then the Incremental Load-Out Requirement for the Preliminary Calculation Period shall be set to zero, and no additional load-out requirements will hence be incurred during the Preliminary Discharge Period. If (i) the Warehouse is an Affected Warehouse, and (ii) the calculated Cumulative Incremental Load-Out Quantity is greater than zero, then the Incremental Load-Out Requirement for the Preliminary Calculation Period shall be set to the Cumulative Incremental Load-Out Quantity in relation to the Preliminary Calculation Period, and must be satisfied by the Warehouse during the Preliminary Discharge Period as set out in paragraph 5 below.

- (b) During the First Calculation Period, and each subsequent Calculation Period, a Warehouse shall measure its Cumulative Load-In and Cumulative Normal Minimum Load-Out. Cumulative Normal Minimum Load-Out shall mean the sum of metal across every Business Day of the relevant Calculation Period that a Warehouse is required to load-out pursuant to the Normal Daily Minimum Load Out Rate (the “**Cumulative Normal Minimum Load-Out**”). Cumulative Load-In shall mean the sum, increased incrementally each Business Day of the relevant Calculation Period, of metal that the Warehouse loads-in during the relevant Calculation Period (the “**Cumulative Load-In**”). Both quantities will be set to zero at the beginning of the Calculation Period.

For each Business Day during the Calculation Period, the Cumulative Load-In will be increased by the amount of new metal placed on-warrant in the Warehouse on the Business Day in question (which, for the avoidance of doubt, shall not include Re-warranted Metal).



For each Business Day during the Calculation Period, the Cumulative Normal Minimum Load-Out will be increased by the Normal Daily Minimum Load-Out Rate for the Business Day in question.

At the end of the Calculation Period, and if the Warehouse has been an Affected Warehouse on any Business Day during that Calculation Period, then the Incremental Load-Out Requirement will be calculated as:

*0.5 (the “Decay Factor”) multiplied by the Cumulative Load-In, up to and including the Cumulative Normal Minimum Load-Out*

**plus**

*the Cumulative Load-In above the Cumulative Normal Minimum Load-Out.*

For the avoidance of doubt, if the Warehouse has not been an Affected Warehouse on any day during that Calculation Period, then the Incremental Load-Out Requirement will be zero in respect of that Calculation Period.

#### 5. Discharging the Incremental Load-Out Requirement

At the end of each Calculation Period, the then current Incremental Load-Out Requirement must be satisfied by the Warehouse during the Discharge Period associated with the Calculation Period having just concluded, provided load-out demand is present.

During the associated Discharge Period, the Warehouse will be required to load-out the Incremental Load-Out Requirement, in addition to its load-out obligations in accordance with Section C above. For the avoidance of doubt, the Warehouse will not be held to any particular daily incremental load-out rate – however, in aggregate over the course of the Discharge Period, the full Incremental Load-Out Requirement must be satisfied.

#### 6. Adjusting the Decay Factor and/or Queue Threshold

The LME, acting reasonably, reserves the right to adjust the Decay Factor and/or the Queue Threshold either on a market-wide basis or on a per-Warehouse basis in order to enhance the orderly functioning of the market or to prevent abusive behaviour or for any other reason.

#### 7. A worked example of the calculation

*This worked example is provided for illustrative purposes only and should not be relied upon for any reason.*

- (a) Consider a notional Warehouse with stocks of 2,000,000 tonnes of a single metal. Pursuant to the LME Policy Regarding the Approval of Warehouses, revised 1 February 2015, the Normal Daily Minimum Load-Out Rate is 3,000



tonnes per Business Day. Consider further that the Warehouse chooses to load-out precisely its Normal Daily Minimum Load-Out Rate (3,000 tonnes) on each Business Day.

- (b) Consider that, of the Warehouse's stocks, 1,000,000 tonnes are represented by cancelled metal. Assuming that owners of all of the cancelled metal have completed the necessary formalities, then the Warehouse's load-out queue will hold 1,000,000 tonnes of metal. At a load-out rate of 3,000 tonnes per Business Day, the queue length will be:

$$\begin{aligned} & 1,000,000 \text{ tonnes} / 3,000 \text{ tonnes per Business Day} \\ & = 333.3 \text{ Business Days} \\ & = 465.3 \text{ calendar days (assuming all weekdays are Business Days)} \end{aligned}$$

For the avoidance of doubt, in practice, the queue length will be determined by the Warehouse concerned on the basis of schedules provided to metal owners.

- (c) Consider that the Warehouse places on-warrant a constant amount of 3,100 tonnes per Business Day. Consider also that, on each Business Day, warrant holders cancel an amount of 3,000 tonnes of metal (thus balancing the delivery out of 3,000 tonnes per Business Day, resulting in a constant queue length until such time as the Incremental Load-Out Requirement comes into effect). There is assumed to be no re-warranting of metal in this scenario.
- (d) At the start of the Preliminary Calculation Period (1 July 2013), the Cumulative Incremental Load-Out Quantity is zero.

On each day during the Preliminary Calculation Period, the following value will be added to the Cumulative Incremental Load-Out Quantity:

*the amount of new metal placed on-warrant in the Warehouse on the Business Day in question (which, for the avoidance of doubt, shall not include Re-warranted Metal) (3,100 tonnes)*

**less**

*the **higher of** (i) the Normal Daily Minimum Load-Out Rate (3,000 tonnes), and (ii) the actual amount of metal loaded-out of the Warehouse on the Business Day in question (also 3,000 tonnes)*

$$= 3,100 \text{ tonnes} - 3,000 \text{ tonnes} = 100 \text{ tonnes}$$

- (e) At the end of the Preliminary Calculation Period (31 January 2015), and assuming that each weekday during the Preliminary Calculation Period is a Business Day for the Warehouse (resulting in a total of 415 Business Days during the Preliminary Calculation Period), then the Cumulative Incremental Load-Out Quantity will total 41,500 tonnes.



Given that, per (c) above, the queue will have retained a constant length, the queue length at the end of the Preliminary Calculation Period will remain at 465.3 calendar days. On this basis, the queue length is greater than 50 days, and the Warehouse is hence an Affected Warehouse at the end of the Preliminary Calculation Period.

Given that, on the final Business Day of the Preliminary Calculation Period, (i) the Warehouse is an Affected Warehouse, and (ii) the calculated Cumulative Incremental Load-Out Quantity is greater than zero, then the Incremental Load-Out Requirement will be set to the Cumulative Incremental Load-Out Quantity (41,500 tonnes), and must be satisfied by the Warehouse during the Preliminary Discharge Period.

- (f) During the Preliminary Discharge Period (1 March 2015 to 31 May 2015), the Warehouse will be required to load-out the Incremental Load-Out Requirement relating to the Preliminary Calculation Period (41,500 tonnes in total over the course of the Preliminary Discharge Period), in addition to its Normal Daily Minimum Load-Out Rate of 3,000 tonnes per Business Day.
- (g) At the start of the First Calculation Period (1 February 2015), the Cumulative Load-In and Cumulative Normal Minimum Load-Out are set to zero.

On each day during the First Calculation Period, the Cumulative Load-In will be increased by the amount of new metal placed on-warrant in the Warehouse on the Business Day in question (which, for the avoidance of doubt, shall not include Re-warranted Metal) – in this case 3,100 tonnes.

On each day during the First Calculation Period, the Cumulative Normal Minimum Load-Out will be increased by the Normal Daily Minimum Load-Out Rate for the Business Day in question – in this case 3,000 tonnes.

- (h) At the end of the First Calculation Period (30 April 2015), and assuming that each weekday during the First Calculation Period is a Business Day for the Warehouse (resulting in a total of 64 Business Days during the First Calculation Period), then the Cumulative Load-In will total 198,400 tonnes, and the Cumulative Normal Minimum Load-Out will total 192,000 tonnes.

On the basis that the Warehouse has been an Affected Warehouse for at least one Business Day during the First Calculation Period, then the Incremental Load-Out Requirement will be calculated as follows:

*the Decay Factor **multiplied by** the Cumulative Load-In, up to and including the Cumulative Normal Minimum Load-Out*

**plus**



*the Cumulative Load-In above the Cumulative Normal Minimum Load-Out*

$$\begin{aligned} &= 0.5 \times 192,000 + (198,400 - 192,000) = 96,000 + 6,400 \\ &= 102,400 \text{ tonnes} \end{aligned}$$

- (i) During the First Discharge Period (1 June 2015 to 31 August 2015), the Warehouse will be required to load-out the Incremental Load-Out Requirement relating to the First Calculation Period (102,400 tonnes in total over the course of the First Discharge Period), in addition to its Normal Daily Minimum Load-Out Rate of 3,000 tonnes per Business Day, provided load-out demand is present.
- (j) This process continues through the Second Calculation Period (and associated Second Discharge Period), Third Calculation Period (and associated Third Discharge Period) and so on, until such time as the Warehouse ceases to be an Affected Warehouse.



**LME POLICY REGARDING THE APPROVAL OF WAREHOUSES,  
REVISED 1 ~~APRIL 2014~~ FEBRUARY 2015**

**(Comparison to version of Policy currently in place)**

**A) Warehouse companies**

Warehouse companies will be considered for listing in an existing or new location subject to completion of a warehouse agreement application form supported by evidence of insurance, capital adequacy and other documents as detailed by the LME from time to time. Inspection of premises offered for warehousing to the LME will take place prior to any listing to ensure they suit the logistical nature of the location as required by the LME. The LME will state its needs in this respect when sending the applicant the application form.

**B) Warehouses**

1. Road connection to major highways is mandatory.
2. Rail loading facilities adjacent to the warehouses will be required if, in the opinion of the LME, this service is routinely required by the metals trade. Warehouses without direct rail connections in such locations may be considered for listing if it can be demonstrated that adequate shuttle services to the rail head are provided by the warehouse company at its own cost and risk.
3. Water loading facilities adjacent to the warehouse or otherwise will be treated in the same way as rail.

The LME, respecting such confidentiality as it deems necessary and appropriate, will undertake its own enquiries, as it sees fit, from its members/trade entities etc. to evaluate any applications prior to submission to EXCOM for consideration.

**C) Common standards of working practices and facilities for warehouses**

1. For each 2500m<sup>2</sup> of space (not including open storage compounds for steel) there must be access by means of an operational door for vehicle loading/unloading, with a minimum of 2 doors per warehouse.
2. The minimum daily delivery tonnage must be in accordance with the tables below. Where the delivery requests exceed the minimum daily delivery tonnage for the capacity on the table below, the LME will regard the standard as applying over the number of days necessary to complete the deliveries, as per the table (e.g. if the requests for the delivery of 2000 tonnes apply to a warehouse's location capacity of 2500 sq. metres, the standard would be to deliver in 3 days with no reference to the performance on any one of those days). The LME would, however, expect the warehouse company to act reasonably when allocating the tonnage delivered out in each of those days.



warehouse company's authorised space per location, in m <sup>2</sup> (excluding steel storage facilities)	minimum daily delivery tonnage for all metals (excluding cobalt, RMC and steel)
2,500	800 tonnes
5,000	1,200 tonnes
7,500	1,500 tonnes

The above table applies to all companies who are storing up to 300,000 metric tonnes of metal. For companies who are storing 300,000 metric tonnes and above the following table is applicable

warehouse company's tonnage stored per location (excluding steel)	minimum daily delivery tonnage for all metals (excluding cobalt, RMC and steel)
300,000 tonnes to 599,999 tonnes	2,000 tonnes
600,000 tonnes to 899,999 tonnes	2,500 tonnes
900,000 tonnes and over	3,000 tonnes

NB: The daily delivery tonnage is for deliveries out only and does not include deliveries in.

3. Where a warehouse company's tonnage stored increases beyond any of the 300,000, 600,000 or 900,000 tonnes thresholds, the applicable revised minimum daily delivery tonnage shall have effect from the date which is 30 days from the date the threshold is passed. This will allow the warehouse company to implement the necessary scheduling changes in order to meet the increased minimum daily delivery tonnage. However, where a warehouse company's tonnage stored falls beneath any of the 300,000, 600,000 or 900,000 tonnes thresholds, a warehouse company will still be required to deliver out all outstanding deliveries scheduled on or prior to the date the tonnage falls beneath such threshold.
4. In addition to the daily rates stipulated above and below, a warehouse company in any location who satisfies the following conditions:-
  - (a) the warehouse company has scheduled delivery out commitments of 30,000 metric tonnes or more; and
  - (b) a minimum of 30,000 metric tonnes of those scheduled commitments are for one metal (the "dominant metal");shall be required to deliver out a minimum of 500 metric tonnes per day in that location of metals other than the dominant metal, provided that such deliveries are requested.
5. In addition to the daily rates stipulated above and below, warehouse companies delivering out the minimum rates stipulated above and below will be required to deliver out an additional, combined tonnage of tin or nickel, or a combination of both metals, in order to ensure that at least 60 tonnes of these metals is being delivered out each day. For the avoidance of doubt, the extra 60 tonnes would



only be required to be delivered out if the warehouse company had reached its minimum daily load out rate (whether or not the requirement in paragraph 4 above has been triggered) and not delivered out 60 tonnes per day of tin and/or nickel as part of these deliveries.

6. The daily delivery out rate does not include deliveries out for cobalt and roasted molybdenum concentrate (RMC). Any deliveries out for either of these metals must be in addition to the rates stipulated in the above table.
7. The daily delivery out rate does not include deliveries out for steel billet. For each location in which it is licensed to store steel billet, a warehouse company must load out in accordance with the minimum requirements stipulated in the tables below, provided demand is present.

warehouse company's authorised space per location, in m <sup>2</sup> (steel storage facilities only)	minimum daily delivery tonnage for steel
2,500	800 tonnes
5,000	1,200 tonnes
7,500	1,500 tonnes

The above table applies to all companies who are storing up to 300,000 metric tonnes of steel. For companies who are storing 300,000 metric tonnes and above the following table is applicable:

warehouse company's tonnage stored per location (steel only)	minimum daily delivery tonnage for steel
300,000 tonnes to 599,999 tonnes	2,000 tonnes
600,000 tonnes to 899,999 tonnes	2,500 tonnes
900,000 tonnes and over	3,000 tonnes

8. The LME recognises that it may not be possible to achieve exactly the same delivery rates if delivery into containers, vans or railcars is required. In assessing a warehouse company's performance, the circumstances will be taken into account.
9. Once all formalities permitting delivery have been completed the warehouse shall prioritise all requests for deliveries out on the basis of 48 hours notice and strictly in the order in which they are received, unless the Warrant holders seeking cancellation agree otherwise.
10. In addition to their rent and FOT charges, warehouse companies are also required to supply the LME with a comprehensive set of charges for delivery out of warranted metal and will undertake to immediately advise the LME of any changes thereto. Warehouse companies are also required to submit to the LME compulsory port tariffs for the import and export of metal.



11. There should be no charges above the FOT for returning the metal to the warehouse companies approved and nominated loading berths within the location where the LME discerns a need for such transportation; the unloading of such metal from the truck being for the receiver's account.
12. Similarly there should be no charges above the FOT for returning metal to the nearest railhead where the LME discerns a need for such transportation.
13. Warehouse Companies are reminded that, in general, the daily delivery tonnages set out in this policy are minimum delivery out requirements, not minimum scheduling requirements. However, metals owners are also reminded of their obligations in respect of observing reasonable logistical arrangements in respect of metal collection. In particular, in the event that no metal owner wishes to avail themselves of a delivery slot offered on a reasonable basis, a warehouse operator will be permitted to count the tonnage which would have been delivered in that slot towards delivery out.

With the exception of the FOT charge and port tariffs for the export of metal the warehouse company may not impose any compulsory additional charges when delivering metal out.

#### **D) Continued compliance with the LME policy for warehouses**

1. In the event that an existing approved warehouse/warehouse company does not appear to meet the LME's criteria, there will be an initial consultation with the warehouse company concerned.
2. If the warehouse company can demonstrate that it will upgrade facilities or work practices to meet the LME's new standards, the LME will consider the appropriate amount of time to allow for such a process. Warehouses could, for example, be given, say, 6-12 months to upgrade their facilities or relocate to a more suitable building within the location, but this would be determined on a case by case basis, according to the circumstances.
3. If after consultation the warehouse company is unwilling or unable to upgrade its facilities or work practices to meet the LME's standards, the LME retains the right to restrict the capacity of that warehouse company in that location or even delist it. [In particular, if a warehouse company fails to comply with the Linked Load-In and Load-Out Requirements per Section F, then the Board may \(among other actions\) restrict the ability of that warehouse company to create warrants in that location until load-in and load-out are brought into alignment pursuant to the requirements.](#)
4. Prior to implementation, the LME would give the necessary notice of any action to be taken to the warehouse company and allow for formal representations to be made.



## **E) Review of LME policy for warehouses**

This policy will be reviewed at least on a biennial basis

## **F) Linked Load-In and Load-Out Requirements**

### **1. Principle**

The general principle of this requirement is to link load-in and load-out for Warehouses with queues of greater than 50 calendar days (the “**Queue Threshold**”).

### **2. Definitions**

A Warehouse (“**Warehouse**”) is all of the LME-licensed storage facilities operated by a particular warehousing company in a particular LME good delivery location.

In relation to a particular Warehouse, a Business Day (“**Business Day**”) is any day on which that particular Warehouse is operating and subject to the current LME minimum load-out requirement.

The Preliminary Calculation Period (“**Preliminary Calculation Period**”) shall be the period between 1 July 2013 and 31 January 2015, inclusive.

The First Calculation Period (“**First Calculation Period**”) shall be the period between 1 February 2015 and 30 April 2015, inclusive.

Each subsequent Calculation Period (“**Calculation Period**”) shall be the three months immediately following the preceding Calculation Period. By way of example, the Second Calculation Period (“**Second Calculation Period**”) shall be the period between 1 May 2015 and 31 July 2015, inclusive (being the three months immediately following the First Calculation Period).

The Preliminary Discharge Period, (the “**Preliminary Discharge Period**”) which will apply in relation to the Preliminary Calculation Period, will be the three month period between 1 March 2015 and 31 May 2015, inclusive.

For each subsequent Calculation Period, the related Discharge Period (i.e. the period during which the Incremental Load-Out Requirement calculated in accordance with paragraph 4 below must be met) shall be the three month period starting on the date one calendar month following the end of that Calculation Period (the “**Discharge Period**”).

By way of example, the First Discharge Period shall be the period between 1 June 2015 and 31 August 2015, inclusive (being the three month period starting on the date one calendar month following the end of the First Calculation Period) (the “**First Discharge Period**”).

In relation to a particular Warehouse on any given Business Day, the Normal Daily Minimum Load-Out Rate is the amount of metal required to be loaded out according



to the LME requirements set out in Section C of this Policy (the “**Normal Daily Minimum Load-Out Rate**”) as follows:

- (a) If, on the Business Day in question, a Warehouse is required to make an additional load-out of non-dominant metal (pursuant to paragraph 4 of Section C above), such additional load-out will be counted towards the Normal Daily Minimum Load- Out Rate for the Business Day in question.
- (b) If, on the Business Day in question, a Warehouse is required to make an additional load-out of nickel and tin (pursuant to paragraph 5 of Section C above), such additional load-out will be counted towards the Normal Daily Minimum Load-Out Rate for the Business Day in question.
- (c) Load-out of cobalt and roasted molybdenum concentrate (“**RMC**”) (paragraph 6 of Section C above) and steel billet (paragraph 7 of Section C above) will not be counted towards the Normal Daily Minimum Load-Out Rate, given that these metals are treated separately for the purposes of Warehouse load-out rates.

Re-warranted Metal (“**Re-warranted Metal**”) is metal in respect of which a warrant has been cancelled, but has not been loaded out of the Warehouse (due to the presence of a queue or other operational constraint), and in respect of which the metal owner has requested that the Warehouse issues a new warrant (and hence reverses the original request to deliver out that metal).

### 3. Affected Warehouses

On any given Business Day, an Affected Warehouse is a Warehouse with a queue of greater than the Queue Threshold (the “**Affected Warehouse**”). Queue lengths will continue to be measured and reported to the LME by warehouse operators, with the LME continuing to exercise oversight in respect of such measurements. For the avoidance of doubt, to the extent that a Warehouse has scheduled deliveries pursuant to any Incremental Load-Out Requirement arising per this policy, then the queue length may take into account such incremental scheduled deliveries.

### 4. Calculating the Incremental Load-Out Requirement

The Incremental Load-Out Requirement shall mean the additional amount of metal that must be discharged by a Warehouse during the course of the relevant Discharge Period, over and above the load-out required by the Normal Daily Minimum Load-Out Rate on each day of that Discharge Period (the “**Incremental Load-Out Requirement**”). The Incremental Load-Out Requirement is derived on the final day of the relevant Calculation Period, as set out more fully in this section F, paragraph 4.

- (a) During the Preliminary Calculation Period, each Warehouse shall maintain the calculation of its Cumulative Incremental Load-Out Quantity which is the quantity set to zero at the beginning of the Preliminary Calculation Period and increased incrementally on each Business Day of the Preliminary Calculation Period by the process set out in this section F, paragraph 4(a) (the “**Cumulative Incremental Load-Out Quantity**”).



During the Preliminary Calculation Period, on each Business Day, the following value will be added to the Cumulative Incremental Load-Out Quantity:

*the amount of new metal placed on-warrant in the Warehouse on the Business Day in question (which, for the avoidance of doubt, shall not include Re-warranted Metal)*

less

*the higher of (i) the Normal Daily Minimum Load-Out Rate, and (ii) the actual amount of metal loaded-out of the Warehouse on the Business Day in question – provided that, for the purposes of (ii), load-out in excess of the Normal Daily Minimum Load-Out Rate which is made to compensate for a shortfall in load-out on a previous or subsequent Business Day (due, inter alia, to scheduling variations within a single load-out request per paragraph 2 of Section C above) shall not count towards the actual amount of metal loaded-out of the Warehouse*

On the final Business Day of the Preliminary Calculation Period, a Warehouse shall establish whether it is an Affected Warehouse at the end of that Business Day. If (i) the Warehouse is not an Affected Warehouse, or (ii) the calculated Cumulative Incremental Load-Out Quantity is less than or equal to zero, then the Incremental Load-Out Requirement for the Preliminary Calculation Period shall be set to zero, and no additional load-out requirements will hence be incurred during the Preliminary Discharge Period. If (i) the Warehouse is an Affected Warehouse, and (ii) the calculated Cumulative Incremental Load-Out Quantity is greater than zero, then the Incremental Load-Out Requirement for the Preliminary Calculation Period shall be set to the Cumulative Incremental Load-Out Quantity in relation to the Preliminary Calculation Period, and must be satisfied by the Warehouse during the Preliminary Discharge Period as set out in paragraph 5 below.

(b) During the First Calculation Period, and each subsequent Calculation Period, a Warehouse shall measure its Cumulative Load-In and Cumulative Normal Minimum Load-Out. Cumulative Normal Minimum Load-Out shall mean the sum of metal across every Business Day of the relevant Calculation Period that a Warehouse is required to load-out pursuant to the Normal Daily Minimum Load Out Rate (the “**Cumulative Normal Minimum Load-Out**”). Cumulative Load-In shall mean the sum, increased incrementally each Business Day of the relevant Calculation Period, of metal that the Warehouse loads-in during the relevant Calculation Period (the “**Cumulative Load-In**”). Both quantities will be set to zero at the beginning of the Calculation Period.

For each Business Day during the Calculation Period, the Cumulative Load-In will be increased by the amount of new metal placed on-warrant in the Warehouse on the Business Day in question (which, for the avoidance of doubt, shall not include Re-warranted Metal).



For each Business Day during the Calculation Period, the Cumulative Normal Minimum Load-Out will be increased by the Normal Daily Minimum Load-Out Rate for the Business Day in question.

At the end of the Calculation Period, and if the Warehouse has been an Affected Warehouse on any Business Day during that Calculation Period, then the Incremental Load-Out Requirement will be calculated as:

*0.5 (the “Decay Factor”) multiplied by the Cumulative Load-In, up to and including the Cumulative Normal Minimum Load-Out*

*plus*

*the Cumulative Load-In above the Cumulative Normal Minimum Load-Out.*

For the avoidance of doubt, if the Warehouse has not been an Affected Warehouse on any day during that Calculation Period, then the Incremental Load-Out Requirement will be zero in respect of that Calculation Period.

#### 5. Discharging the Incremental Load-Out Requirement

At the end of each Calculation Period, the then current Incremental Load-Out Requirement must be satisfied by the Warehouse during the Discharge Period associated with the Calculation Period having just concluded, provided load-out demand is present.

During the associated Discharge Period, the Warehouse will be required to load-out the Incremental Load-Out Requirement, in addition to its load-out obligations in accordance with Section C above. For the avoidance of doubt, the Warehouse will not be held to any particular daily incremental load-out rate – however, in aggregate over the course of the Discharge Period, the full Incremental Load-Out Requirement must be satisfied.

#### 6. Adjusting the Decay Factor and/or Queue Threshold

The LME, acting reasonably, reserves the right to adjust the Decay Factor and/or the Queue Threshold either on a market-wide basis or on a per-Warehouse basis in order to enhance the orderly functioning of the market or to prevent abusive behaviour or for any other reason.

#### 7. A worked example of the calculation

*This worked example is provided for illustrative purposes only and should not be relied upon for any reason.*

- (a) Consider a notional Warehouse with stocks of 2,000,000 tonnes of a single metal. Pursuant to the LME Policy Regarding the Approval of Warehouses, revised 1 February 2015, the Normal Daily Minimum Load-Out Rate is 3,000



tonnes per Business Day. Consider further that the Warehouse chooses to load-out precisely its Normal Daily Minimum Load-Out Rate (3,000 tonnes) on each Business Day.

(b) Consider that, of the Warehouse's stocks, 1,000,000 tonnes are represented by cancelled metal. Assuming that owners of all of the cancelled metal have completed the necessary formalities, then the Warehouse's load-out queue will hold 1,000,000 tonnes of metal. At a load-out rate of 3,000 tonnes per Business Day, the queue length will be:

$$\begin{aligned} & \underline{1,000,000 \text{ tonnes} / 3,000 \text{ tonnes per Business Day}} \\ & \underline{= 333.3 \text{ Business Days}} \\ & \underline{= 465.3 \text{ calendar days (assuming all weekdays are Business Days)}} \end{aligned}$$

For the avoidance of doubt, in practice, the queue length will be determined by the Warehouse concerned on the basis of schedules provided to metal owners.

(c) Consider that the Warehouse places on-warrant a constant amount of 3,100 tonnes per Business Day. Consider also that, on each Business Day, warrant holders cancel an amount of 3,000 tonnes of metal (thus balancing the delivery out of 3,000 tonnes per Business Day, resulting in a constant queue length until such time as the Incremental Load-Out Requirement comes into effect). There is assumed to be no re-warranting of metal in this scenario.

(d) At the start of the Preliminary Calculation Period (1 July 2013), the Cumulative Incremental Load-Out Quantity is zero.

On each day during the Preliminary Calculation Period, the following value will be added to the Cumulative Incremental Load-Out Quantity:

*the amount of new metal placed on-warrant in the Warehouse on the Business Day in question (which, for the avoidance of doubt, shall not include Re-warranted Metal) (3,100 tonnes)*

**less**

*the **higher of** (i) the Normal Daily Minimum Load-Out Rate (3,000 tonnes), and (ii) the actual amount of metal loaded-out of the Warehouse on the Business Day in question (also 3,000 tonnes)*

$$\underline{= 3,100 \text{ tonnes} - 3,000 \text{ tonnes} = 100 \text{ tonnes}}$$

(e) At the end of the Preliminary Calculation Period (31 January 2015), and assuming that each weekday during the Preliminary Calculation Period is a Business Day for the Warehouse (resulting in a total of 415 Business Days during the Preliminary Calculation Period), then the Cumulative Incremental Load-Out Quantity will total 41,500 tonnes.



Given that, per (c) above, the queue will have retained a constant length, the queue length at the end of the Preliminary Calculation Period will remain at 465.3 calendar days. On this basis, the queue length is greater than 50 days, and the Warehouse is hence an Affected Warehouse at the end of the Preliminary Calculation Period.

Given that, on the final Business Day of the Preliminary Calculation Period, (i) the Warehouse is an Affected Warehouse, and (ii) the calculated Cumulative Incremental Load-Out Quantity is greater than zero, then the Incremental Load-Out Requirement will be set to the Cumulative Incremental Load-Out Quantity (41,500 tonnes), and must be satisfied by the Warehouse during the Preliminary Discharge Period.

(f) During the Preliminary Discharge Period (1 March 2015 to 31 May 2015), the Warehouse will be required to load-out the Incremental Load-Out Requirement relating to the Preliminary Calculation Period (41,500 tonnes in total over the course of the Preliminary Discharge Period), in addition to its Normal Daily Minimum Load-Out Rate of 3,000 tonnes per Business Day.

(g) At the start of the First Calculation Period (1 February 2015), the Cumulative Load-In and Cumulative Normal Minimum Load-Out are set to zero.

On each day during the First Calculation Period, the Cumulative Load-In will be increased by the amount of new metal placed on-warrant in the Warehouse on the Business Day in question (which, for the avoidance of doubt, shall not include Re-warranted Metal) – in this case 3,100 tonnes.

On each day during the First Calculation Period, the Cumulative Normal Minimum Load-Out will be increased by the Normal Daily Minimum Load-Out Rate for the Business Day in question – in this case 3,000 tonnes.

(h) At the end of the First Calculation Period (30 April 2015), and assuming that each weekday during the First Calculation Period is a Business Day for the Warehouse (resulting in a total of 64 Business Days during the First Calculation Period), then the Cumulative Load-In will total 198,400 tonnes, and the Cumulative Normal Minimum Load-Out will total 192,000 tonnes.

On the basis that the Warehouse has been an Affected Warehouse for at least one Business Day during the First Calculation Period, then the Incremental Load-Out Requirement will be calculated as follows:

*the Decay Factor **multiplied by** the Cumulative Load-In, up to and including the Cumulative Normal Minimum Load-Out*

**plus**

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the Cumulative Load-In above the Cumulative Normal Minimum Load-Out

$$\begin{aligned} &= 0.5 \times 192,000 + (198,400 - 192,000) = 96,000 + 6,400 \\ &= 102,400 \text{ tonnes} \end{aligned}$$

- (i) During the First Discharge Period (1 June 2015 to 31 August 2015), the Warehouse will be required to load-out the Incremental Load-Out Requirement relating to the First Calculation Period (102,400 tonnes in total over the course of the First Discharge Period), in addition to its Normal Daily Minimum Load-Out Rate of 3,000 tonnes per Business Day, provided load-out demand is present.
- (j) This process continues through the Second Calculation Period (and associated Second Discharge Period), Third Calculation Period (and associated Third Discharge Period) and so on, until such time as the Warehouse ceases to be an Affected Warehouse.