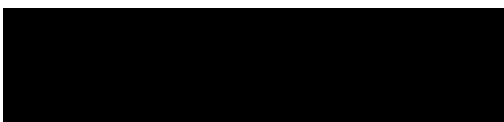




Licence Number	L4432/1989/14
Licence Holder	Pilbara Ports Authority
ACN/ABN:	(ABN 94 987 448 870)
Registered business address	The Esplanade PORT HEDLAND WA 6721
File Number	DER2014/0000636
Duration	17/10/2013 to 16/10/2033
Date of amendment	30 May 2019
Prescribed Premises	Category 58 Bulk material loading or unloading. Category 58A Bulk material loading or unloading (salt).
Premises	Eastern Operations The Esplanade PORT HEDLAND Portion of Lot 6098 on Plan 35618

This Licence is granted to the Licence Holder, subject to the following conditions, on 30 May 2019, by:



Christine Hass
MANAGER, RESOURCE INDUSTRIES (PORT HEDLAND)
an officer delegated under section 20 of the Environmental Protection Act 1986 (WA)

Explanatory Notes

These explanatory notes do not form part of this Licence.

Defined terms

Definition of terms used in this Licence can be found at the end of this Licence. Terms which are defined have the first letter of each word capitalised throughout this Licence.

Department of Water and Environmental Regulation

The Department of Water and Environmental Regulation (DWER) is established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the *Environmental Protection Act 1986* (WA) (EP Act). The Department also monitors and audits compliance with licences, takes enforcement action and develops and implements licensing and industry regulation policy.

Licence

Section 56 of the EP Act provides that an occupier of Prescribed Premises commits an offence if Emissions are caused or increased, or permitted to be caused or increased, or Waste, noise, odour or electromagnetic radiation is altered, or permitted to be altered, from Prescribed Premises, except in accordance with a works approval or licence.

Categories of Prescribed Premises are defined in Schedule 1 of the *Environment Protection Regulations 1987* (WA) (EP Regulations).

This Licence does not authorise any activity which may be a breach of the requirements of another statutory authority including, but not limited to the following:

- conditions imposed by the Minister for Environment under Part IV of the EP Act;
- conditions imposed by DWER for the clearing of native vegetation under Part V, Division 2 of the EP Act;
- any requirements under the *Waste Avoidance and Resource Recovery Act 2007*;
- any requirements under the *Environmental Protection (Controlled Waste) Regulations 2004*; and
- any other requirements specified through State legislation.

It is the responsibility of the Licence Holder to ensure that any action or activity referred to in this Licence is permitted by, and is carried out in compliance with, other statutory requirements.

The Licence Holder must comply with the Licence. Contravening a Licence Condition is an offence under s.58 of the EP Act.

Responsibilities of a Licence Holder

Separate to the requirements of this Licence, general obligations of Licence Holders are set out in the EP Act and the regulations made under the EP Act. For example, the Licence Holder must comply with the following provisions of the EP Act:

- the duties of an occupier under section 61; and
- restrictions on making certain changes to Prescribed Premises unless the changes are in accordance with a works approval, Licence, closure notice or environmental protection notice (s.53).

Strict penalties apply for offences under the EP Act.

Reporting of incidents

The Licence Holder has a duty to report to DWER all discharges of waste that have caused or are likely to cause Pollution, Material Environmental Harm or Serious Environmental Harm, in accordance with s.72 of the EP Act.

Offences and defences

The EP Act and its regulations set out a number of offences, including:

- Offence of emitting an Unreasonable Emission from any Premises under s.49.
- Offence of causing Pollution under s.49.
- Offence of dumping Waste under s.49A.
- Offence of discharging Waste in circumstances likely to cause Pollution under s.50.
- Offence of causing Serious Environmental Harm (s.50A) or Material Environmental Harm (s.50B).
- Offence of causing Emissions which do not comply with prescribed standards (s.51).
- Offences relating to Emissions or Discharges under regulations prescribed under the EP Act, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)*.
- Offences relating to noise under the *Environmental Protection (Noise) Regulations 1997 (WA)*.

Section 53 of the EP Act provides that a Licence Holder commits an offence if Emissions are caused, or altered from a Prescribed Premises unless done in accordance with a Works Approval, Licence or the requirements of a Closure Notice or an Environmental Protection Notice.

Defences to certain offences may be available to a Licence Holder and these are set out in the EP Act. Section 74A(b)(iv) provides that it is a defence to an offence for causing Pollution, in respect of an Emission, or for causing Serious Environmental Harm or Material Environmental Harm, or for discharging or abandoning Waste in water to which the public has access, if the Licence Holder can prove that an Emission or Discharge occurred in accordance with a Licence.

This Licence specifies the Emissions and Discharges, and the limits and Conditions which must be satisfied in respect of Specified Emissions and Discharges, in order for the defence to offence provision to be available.

Authorised emissions and discharges

The Specified and General Emissions and Discharges from Primary Activities conducted on the Prescribed Premises are authorised to be conducted in accordance with the Conditions of this Licence.

Emissions and Discharges caused from other activities not related to the Primary Activities at the Premises have not been Conditioned in this Licence. Emissions and Discharges from other activities at the Premises are subject to the general provisions of the EP Act.

Amendment of licence

The Licence Holder can apply to amend the Conditions of this Licence under s.59 of the EP Act. An application form for this purpose is available from DWER.

The CEO may also amend the Conditions of this Licence at any time on the initiative of the CEO without an application being made.

Amendment Notices constitute written notice of the amendment in accordance with s.59B(9) of the EP Act.

Duration of licence

The Licence will remain in force for the duration set out on the first page of this Licence or until it is surrendered, suspended or revoked in accordance with s.59A of the EP Act.

Suspension or revocation

The CEO may suspend or revoke this Licence in accordance with s.59A of the EP Act.

Fees

The Licence Holder must pay an annual licence fee. Late payment of annual licence fees may result in the licence ceasing to have effect. A licence that has ceased to have effect due to non-payment of annual licence fees continues to exist; however, it ceases to provide a defence to an offence under s.74A of the EP Act.

Late fees are a component of annual licence fees and should a Licence Holder fail to pay late fees within the time specified the licence will similarly cease to have effect.

Conditions

Emissions

1. The Licence Holder must not cause any emissions from the Premises except for Specified Emissions and General Emissions described in column 1, subject to the exclusions, limitations or requirements specified in column 2, of Table 1 below.

Table 1. Emissions Table

Column 1	Column 2
Emission Type	Exclusions/Limitations/Requirements
Specified Emissions	
Fugitive dust	Subject to compliance with: • Conditions 2 to 6 and 8 to 22.
Discharge wash water and stormwater from the Premises	Subject to: • discharge only from the Discharge points shown in Figure 2 of Schedule 4; • Conditions 8 and 9.
General Emissions (excluding Specified Emissions)	
Emissions which occur from the activities on the Premises arising from matters set out in, or incidental to the matters set out in, the General Description in Schedule 2.	Emissions excluded from General Emissions are: • Unreasonable Emissions; or • Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or • Discharges of Waste in circumstances likely to cause Pollution; or • Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or • Emissions or Discharges which do not comply with an Approved Policy; or • Emissions or Discharges which do not comply with prescribed

Column 1	Column 2
Emission Type	Exclusions/Limitations/Requirements
	standard; or - Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or - Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.

Trial Conditions

Notification of a Trial

2. The Licence Holder must notify the CEO of a Trial and such notification (which the CEO will make publicly available) must:
 - (a) be in writing;
 - (b) be made 30 calendar days or more prior to that Trial commencing;
 - (c) include details of the extent of the Trial, including:
 - (i) the duration and frequency of any loading or unloading activities;
 - (ii) method for materials storage and handling including any changes to infrastructure and equipment used at the Premises; and
 - (iii) all controls to be implemented for the management of emissions and discharges;
 - (d) include details of the nature of bulk granular material, including:
 - (i) all public health and ecosystem hazards;
 - (ii) the chemical and geochemical composition;
 - (iii) particle size distribution of bulk granular material including inhalable and respirable fractions;
 - (iv) the representative DEM level, where determination of DEM is possible for that material; and
 - (v) leachate testing conducted on materials that may present a toxicological or ecotoxicological risk;
 - (e) include an analysis of risks to the environment, public health and amenity from potential discharges, dust, odour and noise emissions associated with the Trial;
 - (f) include a monitoring plan that includes, but is not limited to:
 - (i) the indicator parameter/s to be monitored;
 - (ii) monitoring locations, equipment used and proximity to sensitive receptors;
 - (iii) monitoring frequencies;

- (iv) monitoring averaging periods; and
- (v) any meteorological monitoring to be undertaken; and
- (g) only when a CEO notification to cease a Trial has been issued in accordance with Condition 3, and in the event that the Licence Holder is submitting a Trial amendment notification, then the Licence Holder must:
 - (i) resubmit the requirements of Conditions 2(a) – (f);
 - (ii) address the issues that resulted in the notification to cease the Trial on the initial (or any subsequent) Trial for the same product; and
 - (iii) include a new Trial end date calculated 12 months from the commencement of the first shipment of the ceased Trial, not including time elapsed between the CEO notification to cease that Trial and the Trial amendment notification.

CEO notification to cease a Trial (prior to commencement or during)

- 3.** The Licence Holder must cease a Trial in the manner and at the time, when:
- (a) the CEO forms the view, acting reasonably:
 - (i) that following an assessment of the information provided as part of Condition 2, it is determined that the proposed Trial will result in unacceptable impact on public health, amenity or the environment; or
 - (ii) that following a review of any data received in accordance with Condition 6, it is determined that the Trial is having an unacceptable impact on public health, amenity or the environment; or
 - (iii) that the Trial being undertaken is different in any manner from that described in the notification provided by the Licence Holder through Condition 2, when that difference is resulting in, or is likely to result in, an unacceptable impact on public health, amenity or the environment; and
 - (b) the CEO has provided written notice to cease the Trial (which the CEO will make publicly available) to the Licence Holder specifying the grounds for the CEO's views.

Nothing in this Condition prevents the Licence Holder subsequently submitting an amendment in relation to the Trial. Any Trial amendment proposed by the Licence Holder must follow the notification requirements as per Condition 2(g).

Trial restrictions

- 4.** The Trial must cease:
- (a) 12 months from the date of the commencement of the first shipment; or
 - (b) immediately after the shipment where the cumulative throughput amounts exceed 1,000,000 tonnes, or
 - (c) immediately upon receipt of a CEO notification to cease a Trial in accordance with Condition 3,

whichever occurs first.

A Trial may only recommence upon notification of a Trial amendment, in accordance with Condition 2(g).

- 5.** The Licence Holder must not Trial the bulk handling of materials that:
- (a) contain asbestos in concentrations equal to or greater than 0.01% w/w for non-friable asbestos or 0.01% w/w for fibrous asbestos;
 - (b) contain respirable silica equal to or greater than 1% w/w;

- (c) Exceed the radiation transport limit of 10 Bq/g for Uranium-238 and Thorium-232 combined;
- (d) Exceed Rubidium-87 concentrations of 30 Bq/g; or
- (e) Are a waste or waste-derived byproduct (except Clean fill).

Reporting

6. The Licence Holder must submit a report to the CEO which includes the results of monitoring required by condition 2(f), and includes:
 - (a) the 15-minute averaged, raw data in tabulated format;
 - (b) a graphical representation of the monitoring results for each Trial shipment with a comparison against 15-minute averaged meteorological (wind speed and direction) monitoring data;
 - (c) Moisture Content data averaged over each Trial shipment and showing a comparison against the representative DEM level, where the DEM level can be determined; and
 - (d) a summary of the effectiveness of the controls implemented for the management of emissions and discharges,
 within 30 days of the completion of the first Trial shipment; at four, seven and 10 months from the first Trial shipment; and a final closeout report within 30 days following the cessation of the Trial.

Ongoing shipments

7. In the event that approval for the ongoing shipments of the Trial material is sought, the Licence Holder must provide an application for Licence amendment, along with a report fulfilling the requirements of Condition 6, at least three months prior to the completion of the Trial period.

Infrastructure and Equipment

8. The Licence Holder must maintain and operate the infrastructure and equipment specified in column 1 of the Table 7 in Schedule 3, in accordance with the requirements specified in column 2 and 3 of the Table 7 in Schedule 3.
9. The Licence Holder must ensure that the infrastructure and equipment in Schedule 3 are maintained in good working order.

Product Specifications and Monitoring

10. The Licence Holder must only load the bulk granular material detailed in Table 6 of Schedule 2 onto a vessel by an open materials handling system at the Premises unless doing so in accordance with the requirements of Conditions 2 to 7.

Copper concentrate acceptance and handling

11. The Licence Holder must take all practicable measures to ensure that all bulk copper concentrate received at the Premises contains a Moisture Content at or above its corresponding DEM level.
12. In order to verify Condition 11, The Licence Holder must:
 - (a) maintain accurate records for the DEM levels for all bulk copper concentrate received from each Premises User determined by a Reputable Laboratory and representative of the bulk copper concentrate accepted at the Premises at all times; and
 - (b) on a weekly basis obtain and maintain accurate records from each Premises

User in relation to the representative Moisture Content for all bulk concentrate received at the Premises.

- 13.** The Licence Holder must upon immediately becoming aware, and no later than 7 days, of receiving bulk copper concentrate that has a Moisture Content below the corresponding DEM level for that material:
- (a) cease accepting that bulk granular material from that Premises User for the following shipment until it can be verified that the next lot of that bulk granular material from that Premises User has a Moisture Content at or above the corresponding DEM level; and
 - (b) implement mitigation measures to ensure no visible dust is generated from the loading of that bulk granular material.

Spodumene concentrate acceptance and handling

- 14.** The Licence Holder must only accept bulk spodumene concentrate if it contains a Moisture Content at or above its corresponding Distinct Bulk Spodumene Concentrate DEM level.
- 15.** In order to verify Condition 14, The Licence Holder must:
- (a) maintain accurate records for the DEM levels for all bulk Distinct Bulk Spodumene Concentrate received from each Premises User determined by a Reputable Laboratory and representative of the bulk spodumene concentrate accepted at the Premises at all times; and
 - (b) within 10 calendar days of the completion of each shipment, obtain and maintain accurate records from each Premises User in relation to the representative Moisture Content for all bulk spodumene concentrate received at the Premises.
- 16.** The Licence Holder must within 30 days of the first shipment from the Premises of each Distinct Bulk Spodumene Concentrate, submit to the CEO a report including:
- (a) the particle size distribution;
 - (b) the proportion of muscovite; and
 - (c) the proportion of respirable silica quartz,
- from a representative sample of the bulk spodumene concentrate using a clearly documented sampling and analysis methodology and laboratory that holds a NATA accreditation (where available) for the analysis undertaken.
- 17.** The Licence Holder must update on a subsequent annual basis, the information required by Condition 16 for each Distinct Bulk Spodumene Concentrate handled at the Premises during that Annual Period.
- 18.** In addition to the requirements specified and report required by Condition 16 and 17, the Licence Holder must include a review against any previous reports or submissions made to the CEO on the physical or mineralogical properties of each Distinct Bulk Spodumene Concentrate and an assessment on whether any changes result in an increase in risk to public health, amenity or the environment.

Point Source Dust Monitoring

- 19.** The License Holder must undertake point source emission monitoring:
- (a) at the locations specified in Column 1 and described in Schedule 3,
 - (b) for the parameters specified in Column 2,

- (c) calculated as an average over the period specified in Column 3,
 - (d) at the frequency specified in Column 4,
 - (e) in accordance with the method specified in Column 5,
- of Table 2.

Table 2: Point Source Dust Emissions Monitoring

Column 1	Column 2	Column 3	Column 4	Column 5
Discharge Point	Parameter	Averaging Period	Frequency	Method
Dust baghouse stack emission points described in Schedule 3.	Volumetric flow rate (m ³ /s)	1 minute averages over 30 minutes	Quarterly, when in operation, for a 12 months period, concluding by 31 December 2019	USEPA Method 2
	Particulates (mg/m ³ and g/s)	1 minute averages over 30 minutes	Quarterly, when in operation, for a 12 months period, concluding by 31 December 2019	USEPA Method 5 or USEPA Method 17

Dust Monitoring and Reportable Events

- 20.** The Licence Holder must undertake dust monitoring:
- (a) at the locations specified in column 1;
 - (b) for the parameters specified in column 2;
 - (c) at the averaging periods specified in column 3;
 - (d) at the frequency specified in column 5; and
 - (e) in accordance with the methods specified in column 6,
- of Table 3.

Table 3: Dust Emissions Monitoring Table

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Location	Parameter	Averaging Period	Reportable Event	Frequency	Method
M10 and M11, shown through Schedule 4, Figure 2.	Cu as PM ₁₀ (µg/m ³)	24 hour average	>1 µg/m ³	One 24 hour sample every sixth day, plus at least one 24 hour sample during each ship loading event	AS3580.1.1 AS3580.9.6
	Li as PM ₁₀ (µg/m ³)	24 hour average	N/A		
	Particles as PM ₁₀ (µg/m ³)	24 hour average	>145 µg/m ³		

- 21.** The Licence Holder must obtain and present data specified in Table 4:

- (a) for the location specified in column 1;
- (b) at the parameter specified in column 2;
- (c) for the averaging period specified in column 5;
- (d) at the frequency specified in column 6; and
- (e) in accordance with the method specified in column 7, of Table 4.

Table 4: Ambient Air Quality Monitoring at Taplin Street

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7
Monitoring Station Name ¹	Parameter	Reportable Event Criteria	Interim guideline	Averaging Period	Frequency	Method
Taplin Street [^]	Particles as PM ₁₀ (µg/m ³)	70 µg/m ³	70 µg/m ³	24 hour average	Continuous	AS3580.9.11
		N/A	30 µg/m ³	Annual average		

Note 1: Taplin Street: Provision of this data to Pilbara Ports Authority is via the Port Hedland Industries Council. Pilbara Ports Authority is a member of Port Hedland Industries Council.

- 22.** The Licence Holder must provide a report to the CEO for Reportable Events (as specified in column 4 of Table 3 and column 3 of Table 4) which have occurred, containing the information, and for the periods, specified in Schedule 4.

Record-keeping

- 23.** The Licence Holder must maintain accurate and auditable Books including the following records, information, reports and data required by this Licence:
- (a) the calculation of fees payable in respect of this Licence;
 - (b) the maintenance of infrastructure required to ensure that it is kept in good working order in accordance with Conditions 8 and 9 of this Licence;
 - (c) any product specification monitoring data obtained in accordance with Conditions 15, 16 and 17;
 - (d) any monitoring data undertaken in accordance with Conditions 19, 20 and 21 of this Licence;
 - (e) Reportable Events reported in accordance with Condition 22 and Schedule 4 of this Licence.
 - (f) complaints received under Condition 24 of this Licence; and
- In addition, the Books must:
- (a) be legible;
 - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible and are capable of retrieval;

- (c) be retained for at least 7 years from the date the Books were made; and
 - (d) be available to be produced to an Inspector or the CEO.
- 24.** The Licence Holder must record the number and details of any complaints received by the Licence Holder relating Emissions and Discharges from the Premises, and any action taken by the Licence Holder in response to the complaint. Details of complaints must include:
- (a) an accurate record of the concerns or issues raised, for example a copy of any written complaint or a written note of any verbal complaints made;
 - (b) the name and contact details of the complainant, if provided by the complainant;
 - (c) the date of the complaint; and
 - (d) the details and dates of the actions taken by the Licence Holder in response to the complaints.
- 25.** The Licence Holder must submit to the CEO no later than 30 September each year:
- (a) a Compliance Report indicating the extent to which the Licence Holder has complied with the Conditions in this Licence for the preceding Annual Period;
 - (b) a monitoring report providing the results of monitoring and any supporting records, information, reports and data as required by:
 - (i) Condition 12 for moisture content and DEM level of all bulk copper concentrate received at the Premises;
 - (ii) Condition 13 for moisture content of bulk copper concentrate that was below the corresponding DEM level and the corrective measures applied;
 - (iii) Condition 15 for the moisture content and Distinct Bulk Spodumene Concentrate DEM level of all spodumene concentrate received at the Premises
 - (iv) Condition 16, 17 and 18 for the particle size distribution, muscovite and respirable silica quartz content for each Distinct Bulk Spodumene Concentrate and any changes to public health risk, amenity or the environment;
 - (v) Condition 19 for point source emission monitoring undertaken over a 12 month period, concluding 31 December 2019;
 - (vi) Condition 20 for ambient air quality monitoring at M10 and M11, depicted in Schedule 4, Figure 2;
 - (vii) Condition 21 for ambient air quality monitoring at Taplin Street including a comparison of monitoring results against the interim guideline as specified in Column 4 of Table 4.
- 26.** The Licence Holder must comply with a CEO Request, within 7 days from the date of the CEO Request or such other period specified in the CEO Request.

Definitions and Interpretation

Definitions

In this Licence, the following terms have the following meanings:

Annual Period means a 12 month period commencing 1 July in any year to 30 June in the subsequent year

Approved Policy has the same meaning given to that term under the EP Act.

AS3580.1.1 means the Australian Standard AS3580.1.1 *Methods for sampling and analysis of ambient air- Guide to siting air monitoring equipment*.

AS3580.9.11 means the Australian Standard AS3580.9.11 *Methods for sampling and analysis of ambient air- Determination of suspended particulate matter – PM₁₀ beta attenuation monitors*.

AS3580.9.6 means the Australian Standard AS3580.9.6 *Determination of suspended particulate matter PM₁₀ high volume sampler with size selective inlet Gravimetric method*.

Books has the same meaning given to that term under the EP Act.

Clean fill as defined by the *Landfill Waste Classification and Waste Definitions 1996 (as amended April 2018)*.

Compliance Report means a report in a format as specified by the CEO from time to time.

CEO for the purposes of notification means:

Director General
Department Administering the *Environmental Protection Act 1986*
Locked Bag 33 Cloisters Square
Perth WA 6850
Email: info@dwer.wa.gov.au

CEO Request means a request made by the CEO to the Licence Holder in writing, sent to the Licence Holder's address for notifications, as described at the front of this Licence, in relation to:

- (a) information, records or reports in relation to specific matters in connection with this Licence including in relation to compliance with any Conditions and the calculation of fees (whether or not a breach of condition or the EP Act is suspected); or
- (b) reporting, records or administrative matters:
 - (i) which apply to all Licences granted under the EP Act; or
 - (ii) which apply to specified categories of Licences within which this Licence falls.

Condition means a condition to which this Licence is subject under s 62 of the EP Act.

Continuous means a data recovery rate greater than 90% per month.

DEM means the dust extinction moisture which is the moisture content expressed as a percentage of the product at which the Dust Number is 10 derived from the Australian Standard AS4156.6-2000: *Coal preparation, Part 6: Determination of Dust/moisture Relationship for Coal*.

DES means dust extraction system.

Discharge has the same meaning given to that term under the EP Act.

Distinct Bulk Spodumene Concentrate means any lump, fines or blended spodumene product with distinct physical and/or mineralogical characteristics that differ from another spodumene product.

Emission has the same meaning given to that term under the EP Act.

Environmental Harm has the same meaning given to that term under the EP Act.

EP Act means the *Environmental Protection Act 1986* (WA).

General Description means the description of activities and operations carried out on the Premises as set out in Schedule 2 of this Licence.

Implementation Agreement or Decision has the same meaning given to that term under the EP Act.

Licence refers to this document, which evidences the grant of Licence by the CEO under s 57 of the EP Act, subject to the Conditions.

Licence Holder refers to the occupier of the Premises being the person to whom this Licence has been granted, as specified at the front of this Licence.

Material Environmental Harm has the same meaning given to that term under the EP Act.

Moisture Content means the ratio of the mass of water in a sample to the mass of solids in the sample, expressed as a percentage. In equation form:

$$w = \frac{m_1 - m_2}{m_1} \times 100$$

Where:

w = moisture content of sample;

m₁ = initial mass, in grams, of the test portion; and

m₂ = mass, in grams, of the test portion after drying.

Pollution has the same meaning given to that term under the EP Act.

Premises refers to the premises to which this Licence applies, as specified at the front of this Licence and as shown on the map in Schedule 1 to this Licence.

Premises User means the bulk granular material owner who uses the Eastern Operations Facility for the export of their material;

Reportable Events means an exceedance to criteria specified requiring certain actions to be undertaken by the Licence Holder including but not limited to reporting to the CEO.

Reputable Laboratory means a laboratory that is accredited by the National Association of Testing Authorities, Australia (NATA).

Serious Environmental Harm has the same meaning given to that term under the EP Act.

Trial means a test period during which the Licence Holder loads or unloads a new bulk granular material, not specified in Table 6 Schedule 2 of this Licence, at the Premises, in accordance with Conditions 2 to 7 inclusive.

Unreasonable Emission has the same meaning given to that term under the EP Act.

USEPA Method 2 means the United States Environmental Protection Agency's Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube).

USEPA Method 5 means the United States Environmental Protection Agency's Method 5 – Determination of Particulate Matter Emissions from Stationary Sources.

USEPA Method 17 means the United States Environmental Protection Agency's Method 17 – Determination of Particulate Matter Emissions from Stationary Sources.

Waste has the same meaning given to that term under the EP Act.

Interpretation

In this Licence:

- (a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a Condition, each row in a table constitutes a separate Condition; and
- (d) any reference to an Australian or other standard, guideline or code of practice in this Licence means the version of the standard, guideline or code of practice in force at the time of granting of this Licence and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the Licence.

The Premises is shown in the plan below. The blue line depicts the boundary to the Premises.

Schedule 2: General Description

At the time of assessment, the following activities and operations were considered in the determination of the risk and related conditions for the Premises.

The Licence Holder is carrying out activities at the Premises which fall within the meaning of Prescribed Premises under the EP Act. The Premises constitute Category 58 and 58A Premises on which bulk granular material is loaded onto or unloaded from vessels by an open materials loading system.

Infrastructure and Equipment

The infrastructure and equipment situated on the Premises are detailed in Table 5.

Table 5: Infrastructure and Equipment situated on the Premises

	Infrastructure	Plan reference
1.	Berth 1 and Berth 2	Premises Map: Berth 1 and Berth 2 respectively
2.	Sandfire copper container storage area	Premises Map: Sandfire copper container storage area
3.	Supplementary Sandfire copper container storage area	Premises Map: Supplementary Sandfire copper container storage area
4.	Metals X copper storage shed	Premises Map: Metals X copper storage shed
5.	Newcrest copper storage shed	Premises Map: Newcrest copper storage shed
6.	Supplementary Newcrest copper storage shed	Premises Map: Supplementary Newcrest copper storage shed
7.	Outload conveyors and transfer chutes, including: Static conveyors – BC01, BC02, BC02A, BC03, CV21, CV12, CV10, CV09, CV07, CV06, CV05, CV04 Mobile conveyors - MC01 and MC02	Premises Map: BC01, BC02, BC02A, BC03, CV21, CV12, CV10, CV09, CV07, CV06, CV05, CV04, MC01, MC02
8.	Ship loader and conveyors and transfer chutes, including CV01, CV02 and CV03	Premises Plan: Shiploader, CV01, CV02 and CV03
9.	Rotating tipping frame	N/A – mobile equipment operated at Berth 1 and 2
10.	Copper sumps	Premises Plan: Copper Sump

Site Layout

The infrastructure and equipment are set out on the Premises in accordance with the site layout specified on the map in Schedule 1.

Bulk Materials Loaded

Bulk materials (listed below) arrive at the facility via road train. The material is delivered to one of two sheds where it is unloaded. Material is then reclaimed via a front end loader and placed via hopper onto a conveyor within each of the sheds. The conveyors and transfer chutes move material along the outload circuit to the ship-loader where it is loaded into a ships hold via telescopic chute for export.

Alternatively material is delivered to the Premises in containers (also known as rotainer boxes) via road train and stored in a designated container storage area until ready for export. Containers are then transported to the wharf using a MAFI truck or reachstacker and copper concentrate is directly loaded (via tipping) from containers into the vessel's hold using a crane and a Rotabox system.

Table 6: Commodity and approved volumes at the Premises

Commodity and amounts assessed	Throughputs assessed
Copper concentrate	560,000 tonnes per year (exported)
Spodumene concentrate	610,000 tonnes per year (exported)
Total bulk granular material handled	1,170,000 tonnes per year

Schedule 3: Infrastructure and Equipment

Table 7: Infrastructure and Equipment Controls

	Column 1	Column 2	Column 3	Column 4
	Site Infrastructure	Description	Operation details	Reference to Premises Map
Controls for dust				
1.	Metals X Copper Storage Shed	One fully enclosed (vented) shed with separate roller doors for truck entry and exit, a separate roller door for loader access and service and personnel access doors.	Shed doors are closed when: - truck is unloading copper concentrate; - loader is used for stockpiling activities; and - copper concentrate is loaded onto conveyor system via internal hopper.	Figure 1: Premises Map Metals X Copper Storage Shed
		One air/dust extraction filter system for maintenance of negative air pressure during operation.	Air/dust extraction system is in use during all unloading, stockpiling and conveyor loading activities in shed. Air extraction system filter serviced every three months.	
		Ceiling mounted sprinkler network.	The suspended sprinkler systems in the sheds are used for dust suppression whenever visible dust is observed within the shed.	
2.	Newcrest Copper Storage Shed	Fully enclosed (vented) shed with separate roller doors for truck entry and exit, separate roller doors for loader access and service and personnel access doors.	Shed doors are closed when: - truck is unloading copper concentrate; - loader is used for stockpiling activities; and - copper concentrate is loaded onto conveyor system via internal hopper.	Figure 1: Premises Map Newcrest Copper Storage Shed
		Dust bag house systems (one operational, one spare for redundancy).	The operational bag house system is in use for all unloading, stockpiling and conveyor loading activities in sheds. The operational bag house system is inspected quarterly and serviced when required.	

	Column 1	Column 2	Column 3	Column 4
	Site Infrastructure	Description	Operation details	Reference to Premises Map
		Extracted air is filtered by bag house prior to discharge to the atmosphere.	Dust residue from the bag houses is emptied onto the conveyor system periodically when ship loading occurs.	
		Ceiling mounted sprinkler network.	The suspended sprinkler systems in the sheds are used for dust suppression whenever visible dust is observed within the shed.	
3.	Supplementary Newcrest copper storage shed	Fully enclosed (vented) shed with roller doors for loader access and doors for personnel access.	Shed doors are closed when: - truck is unloading copper concentrate; - loader is used for stockpiling activities; and - copper concentrate is loaded onto conveyor system via internal hopper.	Figure 1: Premises Map Supplementary Newcrest Copper Storage Shed.
		Shed has a dust bag house system.	The operational bag house system is in use for all unloading, stockpiling and conveyor loading activities in sheds. The dust bag house system is inspected quarterly and serviced when required.	
		Ceiling mounted sprinkler network.	The suspended sprinkler systems in the sheds are used for dust suppression whenever visible dust is observed within the shed.	

	Column 1	Column 2	Column 3	Column 4																																																																																										
	Site Infrastructure	Description	Operation details	Reference to Premises Map																																																																																										
4.	Conveyors (17 in total)	<table border="1"> <thead> <tr> <th>Conveyor</th><th>Plastic Cover</th><th>Canvas Skirts</th><th>Perspex side guards</th><th>Belly pan</th></tr> </thead> <tbody> <tr><td>BC01</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>BC02</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>BC02A</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>BC03</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>CV01</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>CV02</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>CV03</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>CV04</td><td>•</td><td>•partial</td><td></td><td>•</td></tr> <tr><td>CV05</td><td></td><td></td><td>•</td><td>•</td></tr> <tr><td>CV06</td><td>• partial</td><td>• partial</td><td>• partial</td><td>•</td></tr> <tr><td>CV07</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>CV09</td><td>•</td><td>•partial</td><td></td><td>•partial</td></tr> <tr><td>CV10</td><td>• partial</td><td>• partial</td><td>• partial</td><td>• partial</td></tr> <tr><td>MC01</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>MC02</td><td>•</td><td>•</td><td></td><td>•</td></tr> <tr><td>CV12</td><td colspan="4">Fully enclosed with metal cowling on both sides</td></tr> <tr><td>CV21</td><td colspan="4">Fully enclosed with metal cowling on both sides</td></tr> </tbody> </table>	Conveyor	Plastic Cover	Canvas Skirts	Perspex side guards	Belly pan	BC01	•	•		•	BC02	•	•		•	BC02A	•	•		•	BC03	•	•		•	CV01	•	•		•	CV02	•	•		•	CV03	•	•		•	CV04	•	•partial		•	CV05			•	•	CV06	• partial	• partial	• partial	•	CV07	•	•		•	CV09	•	•partial		•partial	CV10	• partial	• partial	• partial	• partial	MC01	•	•		•	MC02	•	•		•	CV12	Fully enclosed with metal cowling on both sides				CV21	Fully enclosed with metal cowling on both sides				Mist sprays operated during loading to suppress dust from conveyors at head of transfer chutes. Conveyor belly pans are cleaned as required during and at the end of ship loading. Conveyors inspected by Licence Holder following clean up to ensure they have been cleaned. Maintain fully sealed rubber covers at the tail ends of CV07 and MC02 in good order to contain dust and spillage.	Figure 1: Premises Map BC01, BC02, BC02A, BC03, CV21, CV12, CV10, CV09, CV07, CV06, CV05, CV04, MC02
Conveyor	Plastic Cover	Canvas Skirts	Perspex side guards	Belly pan																																																																																										
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5.	Transfer Chutes (12 in total) and Ship loader (including 3 transfer chutes and 3 conveyors, CV01-03)	Canvas or perspex shrouds/covers on static transfer chutes and between static conveyors to mobile conveyors. Conveyors on ship loader fully enclosed with canvas skirt and steel belly pans. Telescopic chute used for loading into ship's hold.	Dust shrouds inspected prior to ship loading operations to ensure proper placement. Dust shrouds only removed for clean up during or following ship loading operations. Conveyor belly pans are cleaned as required during and at the end of ship loading. Conveyors inspected by Licence Holder following clean up. Vacuum truck available at all times during ship loading and used as required to recover copper concentrate spilled. Head chutes have switches which are activated by blockages and cause all upstream conveyors to stop running.	Figure 1: Premises Map Ship loader transfer feeders 1 and 2, conveyors CV01-CV03)																																																																																										

	Column 1	Column 2	Column 3	Column 4
	Site Infrastructure	Description	Operation details	Reference to Premises Map
		The dust extraction system (DES) contains 12 dust/air filters.	DES automatically activated via the CITEC automated control system prior to the outload circuit starting up. This enables extraction of dust arising from the product when transferred between CV02 and CV01 and between CV03 and CV02. DES failure sends a signal to the CITEC automated control system and causes the outload circuit to stop running. DES dust/air filters changed out as required.	
		DES automatic filter clean.	The DES has a vacuum sensing system which causes dust collected in the filters to be disposed of in a spill bin below. It is emptied and cleaned after each shipment.	
6.	Containers (also known as rotainer boxes)	Containers used to load copper and spodumene concentrate at Berth 2 into the vessel's hold.	Containers must remain closed at all times when outside of the vessel's hold, until they are below the level of the deck, unless for the purpose of carrying out product sampling.	Figure 1: Premises map Berth 2 Sandfire Copper Container Storage Area Supplementary Sandfire Copper Container Storage Area
7.	Dust Monitors	Two boundary monitors for Cu, Li and PM ₁₀ - M10 and M11 (Ecotech 3000 HVAS)	Operated in accordance with Condition 20.	Figure 2. Dust and Stormwater Monitoring Locations
		Ambient monitoring at Taplin Street (Port Hedland). Targets for Taplin Street based on Port Hedland Dust Management Taskforce.	Operated by Port Hedland Industries Council (PHIC) with data management and maintenance by PHIC. Access agreement between PHIC and Licence Holder to be maintained.	N/A

	Column 1	Column 2	Column 3	Column 4
	Site Infrastructure	Description	Operation details	Reference to Premises Map
8.	Cleaning equipment	Road sweeper and Vacuum truck. Designated bunded maintenance area outside copper storage sheds.	Road sweeper is used daily on trafficable areas during periods when copper is delivered to the Premises and/or ship loading occurs. Brooms are used to manually clean the right hand side wheel guard of side tipping trucks to remove copper spillage prior to exiting the copper storage sheds. Loaders and excavators undergo maintenance in designated bunded areas outside the copper storage sheds. Vacuum truck available at all times during ship loading and used as required to recover spillage and empty sumps.	N/A
Stormwater management				
9.	Stormwater drainage	Berth and container storage infrastructure	Bunding of the western (front), eastern (back) and the northern edges of Berth 1 and effective sealing of all holes in the wharf to ensure capture of all water that land on the wharf surface. Stormwater overflow from Berth 1 is contained in blind sumps which are emptied by the vacuum truck. Contaminated stormwater is returned to the copper sumps. All ground surrounding the copper outload circuit is sealed.	Figure 1. Premises Map Berth 1, Conveyor infrastructure and Copper sumps Sandfire Copper Container Storage Area

	Column 1	Column 2	Column 3	Column 4
	Site Infrastructure	Description	Operation details	Reference to Premises Map
10.	Wastewater containment	Wastewater sumps (copper sumps and blind sumps) Loaders and excavators operated within copper storage sheds	Wash water from conveyor system cleaning is contained in blind sumps along the outload circuit. The wastewater is then vacuumed and deposited in the copper sumps. Wastewater is settled in the copper sumps, with settled material being left to dry out and returned to the copper storage sheds. Water from the copper sumps is either used for dust suppression within the sheds, or sent through a wastewater treatment system and used for irrigation of garden beds at the Premises. Loaders and excavators are washed inside the copper storage sheds.	Figure 1. Premises Map Berth 1, Conveyor infrastructure and Copper sumps Copper storage sheds (Metals X Copper Storage Shed; Newcrest Copper Storage Shed; and Supplementary Newcrest Copper Storage Shed)
11.	Vacuum collection truck	Vacuum collection truck operating on Berth 1	Vacuum collection truck that deposits all water and slurry from the Berth 1 surface and blind sumps to the copper sumps.	Figure 1. Premises Map Berth 1 and Copper sumps

	Column 1	Column 2	Column 3	Column 4
	Site Infrastructure	Description	Operation details	Reference to Premises Map
12.	Bulk loading equipment	Shiploading equipment and berth infrastructure	Copper concentrate arrives in road trains with covered load or in lidded containers. Storage and stockpiling of copper concentrate in enclosed sheds or in containers in the copper container storage area. The ground surrounding the copper outload circuit for Metals X and Newcrest products is fully sealed and bunded to contain all spills. The deflector plate on the shiploader is positioned between the wharf and the ship to ensure no direct spillage of product into the harbour during loading. Restricted feed speed (Metals X) to prevent spillage and blockages along the outload circuit.	Figure 1: Premises Map Metals X Copper Storage Shed; Newcrest Copper Storage Shed; and Supplementary Newcrest Copper Storage Shed; Supplementary Sandfire Copper Container Storage Area; and Sandfire Copper Container Storage Area
13.	Cleaning equipment and procedures	Road sweeper Conveyor system that delivers copper from copper storage sheds to the shiploader Shiploading equipment	Road sweeper is used daily during periods when copper is delivered to the Premises and/or ship loading occurs. Conveyor infrastructure is cleaned after each loading events Lid at base of telescopic chute is closed at commencement of cleaning to ensure no direct discharge of washdown water to the harbor.	Figure 1: Premises Map Conveyer infrastructure , Metals X Copper Storage Shed; Newcrest Copper Storage Shed; Supplementary Newcrest Copper Storage Shed; and copper sumps

Schedule 4: Monitoring

Dust Monitoring Reportable Events

Locations

Locations: M10 and M11 on Figure 2 and Taplin Street.

Dust monitoring reporting periods

Reportable Events must be reported to the CEO on a quarterly basis, on the last day of the following dates:

- July (for April to June),
- October (for July to September),
- January (for October to December); and
- April (January to March), in any year.

Dust monitoring reports

The monitoring reports must contain in relation to a Reportable Event:

- the Reportable Event date(s), time and duration;
- the raw monitoring data for the Reportable Event in tabulated form;
- where there is an exceedance to Reportable Event criteria, details of investigation and mitigation measures must be provided and include the following:
 - confirmation that data received is correct (no instrument fault);
 - determination of the source of the exceedance through:
 - review of operational activities; and
 - review of meteorological data (including temperature, wind speed and direction);
 - for Reportable Events at the Taplin Street monitor, a comparison of PM₁₀ concentrations against 24-hour averaged levels recorded at boundary monitors M10 and M11 during the 24-hour period, where boundary monitoring has taken place during the same period in accordance with Condition 20;
 - where a Reportable Event may be attributed to the Licence Holder's activities through the investigation steps above, a review of:
 - Moisture Content of materials received at the time of the exceedance against DEM; and
 - comparison of boundary dust levels against dust levels recorded at Taplin Street ambient dust monitoring station (24-hour averaging period); and
 - where a Reportable Event is determined to be attributed to the Licence Holder's activities, Corrective and Mitigation measures undertaken including but not limited to:
 - actions taken by site personnel as a response to the any high level alarms;
 - maintenance of onsite dust management infrastructure and equipment, if identified as a causal factor by site personnel;
 - reporting of dust events to all stakeholders, including analysis of probable causes; and
 - audit of process controls (e.g. dust alarm procedures).

Figure 2. Dust and Stormwater Monitoring Locations

