



Decision Document

Environmental Protection Act 1986, Part V

Proponent: CITIC Pacific Mining Management Pty Ltd

Licence: L8659/2012/2

Registered office: 45 St Georges Terrace
PERTH WA 6000

ACN: 119 578 371

Premises address: Sino Iron Transshipment Facility
Within the following coordinates:
Point 1: 116° 4' 59.88" E, 20° 39' 50.39" S
Point 2: 116° 15' 0.00" E, 20° 35' 52.55" S
Point 3: 116° 15' 0.00" E, 20° 45' 0.00" S
Point 4: 116° 14' 0.00" E, 20° 45' 0.00" S
Point 5: 116° 14' 0.00" E, 20° 45' 41.37" S
Point 6: 116° 9' 31.34" E, 20° 47' 44.48" S
Point 7: 116° 9' 32.93" E, 20° 42' 56.89" S
Point 8: 116° 5' 34.95" E, 20° 44' 30.00" S
Point 9: 116° 4' 59.88" E, 20° 42' 59.76" S
MARDIE WA 6714

Issue date: Thursday, 12 November 2015

Commencement date: Thursday, 26 November 2015

Expiry date: Wednesday, 25 November 2020

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by: Sonya Poor
Licensing Officer

Decision Document authorised by: Alana Kidd
Delegated Officer



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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	New Licence <input checked="" type="checkbox"/>
	Licence amendment <input type="checkbox"/>	Works Approval amendment <input type="checkbox"/>
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	58	152,000 tonnes per day (76,000 tonnes per day, per facility)
	73	4,588 cubic metres in aggregate
Application verified	Date: 10/09/2015	
Application fee paid	Date: 13/10/2015	
Works Approval has been complied with	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Compliance Certificate received	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Commercial-in-confidence claim	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal and assessment

CITIC Pacific Mining Management Pty Ltd (the Licensee) is an Australian company that is wholly owned by CITIC Pacific Limited. The Licensee was established to manage the development of the George Palmer Deposit associated processing and export facilities, on behalf of the Sino Iron and Korean Steel projects (the Sino Iron Project). The iron ore mine, processing and export facility is located near Cape Preston approximately 80 kilometres (km) south-west of Karratha in the Pilbara region of Western Australia.

The *Iron Ore Processing (Mineralogy Pty Ltd) Agreement Act 2002* (IOPAA) is an agreement between the Western Australian Government, Mineralogy and six subsidiary companies. In March 2006, CITIC Pacific Limited purchased mining rights for the George Palmer Ore body at Cape Preston from Mineralogy, therefore, becoming a proponent to the IOPAA. This was through the acquisition of the Sino Iron Project, allowing a combined 2 billion tonnes of magnetite iron ore concentrate over a mine life of 30 years within mining leases M08/123, M08/124 and M08/125. As the holder of the mining tenements and proponent of the IOPAA, Mineralogy retains ultimate liability for the mining tenements.

The Transshipment Facility (two transshipment vessels) operate within the Cape Preston Port Boundary, approximately 20 km offshore within State waters as defined under commonwealth legislation, *Coastal Waters (State Power) Act 1989* and the *Seas and Submerged Land Act 1973*. The Transshipment Facility was constructed in China and sailed to Cape Preston. Magnetite concentrate produced from the Sino Iron Project is loaded from barges by the Transshipment Facility to an Ocean Going Vessel (OGV) within a designated area of the Cape Preston Port Authority Area at a nominated rate of approximately 76,000 tonnes per day per transhipper. The bulk loading system for each transhipper requires the storage of 2,294.16 cubic metres (m³) of marine fuel oil on board for power and maintenance.

The Transshipment Anchorage Area (TAA) designated for mooring and loading is approximately 16 hectares (ha) in area. There are 16 anchorage points available to the OGV and transhippers. The exact mooring is selected by the OGV, the transhipper then navigates to the OGV to load product and the OGV transports the product overseas.

The main features of each transhipper includes:

- Overall length of 131.8 m;
- Beam of 28.00 m;
- Draft of 3.5 m;
- Deck loading of 5 tonnes per square metre (m²);
- Complement of 46 berths;
- Propulsion of 2 x 637 kilowatt (kW) thruster engines;
- Diesel electric capacity of 4 x 1257 kW engines;
- Maximum power of 2,214 kW;
- Two cranes servicing two 10.5 m³ grabs;
- Conveying system with 5 dust collectors;
- Wastewater Treatment of 4.2 m³ per day;
- Reverse Osmosis (RO) plant: 1,467 kilolitre (kL) tank holding capacity; and
- 7 Ballast Water Tanks providing 4,255.96 m³ capacity.

This licence is the successor to licence L8659/2012/1. Where conditions have been added or removed from the existing licence these have been justified in Section 4.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L1.2.1 and L1.2.2.	<p>Previous conditions 6 has been removed. The storage of environmentally hazardous materials can be adequately regulated by the <i>Dangerous Goods Safety Act 2004</i> and associated Regulations.</p> <p>Previous conditions 1 and 7 are now covered under conditions L1.2.1 and L1.2.2.</p>	<p><i>Dangerous Goods Safety Act 2004.</i></p> <p><i>Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007.</i></p> <p>Australian Standard 1940-2004 The Storage and Handling of Flammable and Combustible Liquids.</p> <p>Code of Practice for the Storage and handling of dangerous goods.</p>
Premises operation	L1.3.1 – L1.3.4.	<p>Previous condition 2 is now covered by condition L1.3.3.</p> <p>Process limits for both the bulk loading, unloading and storage of chemicals have been</p>	CITIC Pacific Mining



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		<p>included for the Transshipment Facility through conditions L1.3.1 and L1.3.2.</p> <p><u>Emission Description</u> <i>Emission:</i> Potential release of sewage, which has not been treated to the required standards to the marine environment. <i>Impact:</i> Potential impacts on the ecology of marine waters from the addition of nutrients and untreated sewage. <i>Controls:</i> In the event that the on-board sewage treatment system is inoperable or not operating to the manufacturer's specifications, treated/raw sewage is to be stored in a dedicated 86 kL, double-skinned sewage tank prior to disposal on-shore to a licensed facility. The system provides 14-18 days storage capacity.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> Condition L1.3.4 has been added to the licence for the storage requirements of sewage in the event the on-board sewage treatment system is inoperable or not operating to the manufacturer's specification.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low</p>	<p>Management Pty Ltd – Sino Iron Project Transshipment Facility Licence to Operate – L8659/2012/1, 27 August 2015.</p>
Point source emissions to	N/A.	<p>Previous condition 3 has been removed. The Licensee has stated that since the commencement of operations there have been no discharges to the marine environment</p>	<p>CITIC Pacific Mining</p>



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surface water including monitoring		with a total petroleum hydrocarbon (TPH) concentration greater than 15 mg/L. The only planned wastewater discharges into the marine environment associated with the transshipment operations are the discharge of treated wastewater from the wastewater treatment plant and waste brine from the RO plant, both of which do not include TPH concentrations greater than 15 mg/L (neither plant triggers a category under the <i>Environmental Protection Regulations 1987</i>). Annexure IV of the International Convention for the Prevention of Pollution from Ships (MARPOL) 1973 and 1978 (73/78) permits the discharge of treated wastewater to the marine environment as long as the vessel is no less than 3 nautical miles from the nearest land and the wastewater is discharged whilst the vessel is proceeding en route at a speed not less than 4 knots.	Management Pty Ltd – Sino Iron Project Transshipment Facility Licence to Operate – L8659/2012/1, 27 August 2015.
Fugitive emissions	N/A.	Previous condition 1 is now covered by condition L1.2.1. Fugitive emissions of dust are considered low risk given the location of the Premises, as such fugitive emissions can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i> and the Licensee's internal management systems.	General provisions of the <i>Environmental Protection Act 1986</i> .
Information	L2.1.1 – L2.1.4 and L2.2.1.	<p>Previous conditions 4 and 5 have been removed. The Licensee has stated the following:</p> <ul style="list-style-type: none"> Any spills from vessels within State waters (including Port waters) will be reported to the Department of Transport; In accordance with Annexure V of MARPOL 73/78 particular waste streams are permitted to be discharged to the sea under various scenarios. Notwithstanding this, waste is typically stored on board the Transshipment Facility and transferred to shore at Cape Preston for disposal to a licensed facility; and The discharge of raw sewage within the Cape Preston Port boundaries or if a spill is deemed to have caused or is likely to cause pollution, material environmental harm or serious environmental harm the incident will be reported to DER in accordance with section 72 of the <i>Environmental Protection Act 1986</i>. <p>Previous conditions 8 and 9 are now covered under conditions L2.1.3 and L2.2.1. Table 2.2.1 now requires the Licensee to submit in the Annual Environmental Report the</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>CITIC Pacific Mining Management Pty Ltd – Sino Iron Project Transshipment Facility Licence to</p>



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		calculated daily material loading or unloading throughput for the Transshipment Facility to ensure the process limit is not exceeded.	Operate – L8659/2012/1, 27 August 2015.
Licence Duration	N/A.	This licence will be reissued for a five year period. The Licensee is aware of their obligation to notify DER if there are any changes to the operation of the Transshipment Facility.	N/A.

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
19/10/2015	Application advertised in West Australian (or other relevant newspaper)	No comments received	N/A
27/10/2015	Proponent sent a copy of draft instrument	<p>Condition L1.3.4. The Licensee has stated that no treatment occurs within the sewage tanks. Raw or partially treated sewage is only stored in the event the onboard treatment unit is inoperable. Under normal operating conditions, treated wastewater will be disposed of in accordance with MARPOL 73/78 requirements</p> <p>Table 2.2.1 - Condition 1.3.1 Daily transfer rates for the annual period will be calculated based on total volume (m³) transferred over the annual period divided by 365 days</p> <p>Table 2.2.1 – Condition 1.3.2 The fuel storage capacity of the transhippers is fixed. Inclusion of the annual capacity in the Annual Environmental Report is unnecessary as it will always be 4,588 m³</p>	<p>Condition L1.3.4 – Removal of “and/or treated”</p> <p>Table 2.2.1 - Condition 1.3.1 Changed to calculated daily material loading or unloading throughput for the Transshipment Facility</p> <p>Table 2.2.1 – Condition 1.3.2 This requirement has been removed</p>

6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High