



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:** Cliffs Asia Pacific Iron Ore Pty Ltd

**Licence:** L5850/1993/11

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**Registered office:** Cliffs Asia Pacific Iron Ore Pty Ltd  
Level 12, 1 William Street  
PERTH WA 6000

**ACN:** 001 892 995

**Premises address:** Koolyanobbing Iron Ore Project  
KOOLYANOBING WA 6427  
Being part Tenements L77/219, M77/606, M77/607, M77/611, M77/990,  
M77/989, M77/1278 and E77/1307 as depicted in Schedule 1.

**Issue date:** Friday, 25 October 2013

**Commencement date:** Monday, 28 October 2013

**Expiry date:** Wednesday, 27 October 2032

### **Decision**

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Jamie Piotrowski  
Licensing Officer

Decision Document authorised by: Tim Gentle  
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 type="checkbox"/>	
	Licence amendment <input checked="" type="checkbox"/>	
	Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	<b>Category number(s)</b>	<b>Assessed design capacity</b>
	05	12 500 000 tonnes per annual period
	06	2 010 000 tonnes per annual period
	54	300 cubic metres per day
	57	1,000 tyres
64	6 000 tonnes per annual period	
Application verified	Date: N/A	
Application fee paid	Date: N/A	
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		
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 type="checkbox"/>	No <input checked="" type="checkbox"/> Referral decision No: Managed under Part V <input type="checkbox"/>



		Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
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"/>	Department of Water consulted Yes <input type="checkbox"/> No <input 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 <sub>2</sub> requirements of Kwinana EPP.		

### 3 Executive summary of proposal and assessment

Cliffs Asia Pacific Iron Ore Pty Ltd (Cliffs) operate four iron ore mines in the Yilgarn Region of Western Australia: Koolyanobbing; Deception (underdeveloped); Windarling; and Mt Jackson. Ore from each of the sites is transported to the Koolyanobbing Iron Ore Project (the premises) for crushing and screening. As part of these operations Cliffs manage three putrescible landfill areas on the premises that accept domestic and inert waste including tyres from mining operations and the accommodation village. To further support operations at the premises, wastewater treatment plant (WWTP) is authorised to treat approximately 300 cubic metres of wastewater from the accommodation village each day. All treated wastewater is discharged to the Pond 2, which has an overall capacity of 15,175 m<sup>3</sup> inclusive of a 500 mm freeboard.

Cliffs discharge dewater from A, B and C Pits to K Pit before being discharged to Lake K. Groundwater abstracted from mine voids is hypersaline, with a Total Dissolved Solids (TDS) concentration ranging from 64,000 mg/L at C Pit to 240,000 mg/L at K Pit. Groundwater at the premises has been recorded at a depth of approximately 10 metres below the general land surface and 120 m below the crest of K Pit. This significant difference is likely the result of continued dewatering from K Pit to Lake K. Lake K displays the greatest salinity of the lakes within the Lake Deborah lake system probably due to the manmade causeway constructed between Lake K and Lake Deborah East Major restricting natural movement of water. The causeway has no culverts and the lake is effectively a closed system (Hydrosearch 2006).

This Licence is the result of an amendment sought by the Licensee to include the discharge of mining dewater into the A Deposit Mine Pit. Mining dewater will be pumped to the A Deposit Mine Pit using existing infrastructure. No additional infrastructure will need to be installed or constructed.



## 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.

<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>General conditions</b>	Former conditions L1.1.5 to 1.1.8	Former generic conditions have been removed from the Licence as per departmental policy.	N/A
<b>Premises operation</b>	L1.2.2	Condition 1.2.2 has been amended. The term “minimises” has been replaced with “does not cause” and vegetation has been defined as “native vegetation”. This is to accurately reflect the purpose of the condition to protect native vegetation from harm due to mining activities.	N/A
<b>Point source emissions to groundwater</b>	Table 2.3.1	Table 2.3.1 has been amended to include A Deposit Mine Pit as a suitable discharge point of mine water discharge. The discharge point has been defined as “G2”.  Pre-mining, the groundwater was approximately 340 AHD. The discharge of mining dewater into the A Pit is expected to raise the level of groundwater in the pit to a maximum 315 AHD, 25 meters below the pre-mining levels. There are no adverse impacts to vegetation expected from the proposed activities.	Application supporting documentation
<b>Premises boundary</b>	Schedule 1: Maps	The “Premises Map” has been replaced. The new map now shows the discharge point G2 as defined in Table 2.3.1	N/A
<b>Licence Duration</b>	N/A	The Licence expiry date has been amended to 27 October 2032 to reflect the administrative amendment initiated by DER.	N/A



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
19 August 2016	Proponent sent a copy of draft instrument	Minor wording comments in Premises description and Licence summary pertaining to the discharging of groundwater into Pit A.	Specifying that groundwater discharge was to come from Pit K only has been removed from the description as discharges from Pit C were required the groundwater in the area is similar in chemical values. No additional impact is expected.



## 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