



## Application for Licence Amendment

### Part V Division 3 of the *Environmental Protection Act 1986*

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<b>Licence Number</b>	L8148/2006/4
<b>Licence Holder</b>	Koolan Iron Ore Pty Ltd
<b>ACN</b>	099 455 277
<b>File Number</b>	DER2014/000374-1
<b>Premises</b>	Koolan Iron Ore Mine and Port Facility Mining Tenements M04/416, M04/417 and L04/29 KOOLAN ISLAND (BUCCANEER ARCHIPELAGO) WA 6733 As depicted in Schedule 1
<b>Date of Report</b>	13 October 2021
<b>Decision</b>	Revised licence granted

#### **A/Manager, Resource Industries**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

## Table of Contents

<b>1. Decision summary</b>	<b>1</b>
<b>2. Scope of assessment</b>	<b>1</b>
2.1 Regulatory framework	1
2.2 Application summary	1
2.3 Part IV of the EP Act	1
<b>3. Risk assessment</b>	<b>1</b>
3.1 Source-pathways and receptors	1
3.1.1 Emissions and controls	1
3.1.2 Receptors	2
3.2 Risk ratings	4
<b>4. Consultation</b>	<b>6</b>
<b>5. Conclusion</b>	<b>6</b>
5.1 Summary of amendments	6
<b>References</b>	<b>7</b>
<b>Appendix 1: Application validation summary</b>	<b>8</b>
Table 1: Proposed throughput capacity changes	1
Table 2: Licence Holder controls	2
Table 3: Sensitive human and environmental receptors and distance from prescribed activity	3
Table 4. Risk assessment of potential emissions and discharges from the Premises during construction and operation	5
Table 5: Consultation	6
Table 6: Summary of licence amendments	6
Figure 1: Proposed arrangement of crushing and screening facility	1

## 1. Decision summary

Licence L8148/2006/4 is held by Koolan Iron Ore Pty Ltd (Licence Holder) for the Koolan Iron Ore Mine and Port Facility (the Premises), located at mining tenements M04/416, M04/417 and L04/29.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L8148/2006/4 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

### 2.2 Application summary

On 05 August 2021, the Licence Holder submitted an application to the department to amend Licence L8148/2006/4 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments to the Category 5 crushing and screening plant are being sought:

- Installation of a new primary crusher;
- Refurbishment of other existing plant in the existing crushing circuit; and
- Increase capacity from the currently approved 4 million tonnes per annum to 5 million tonnes per annum.

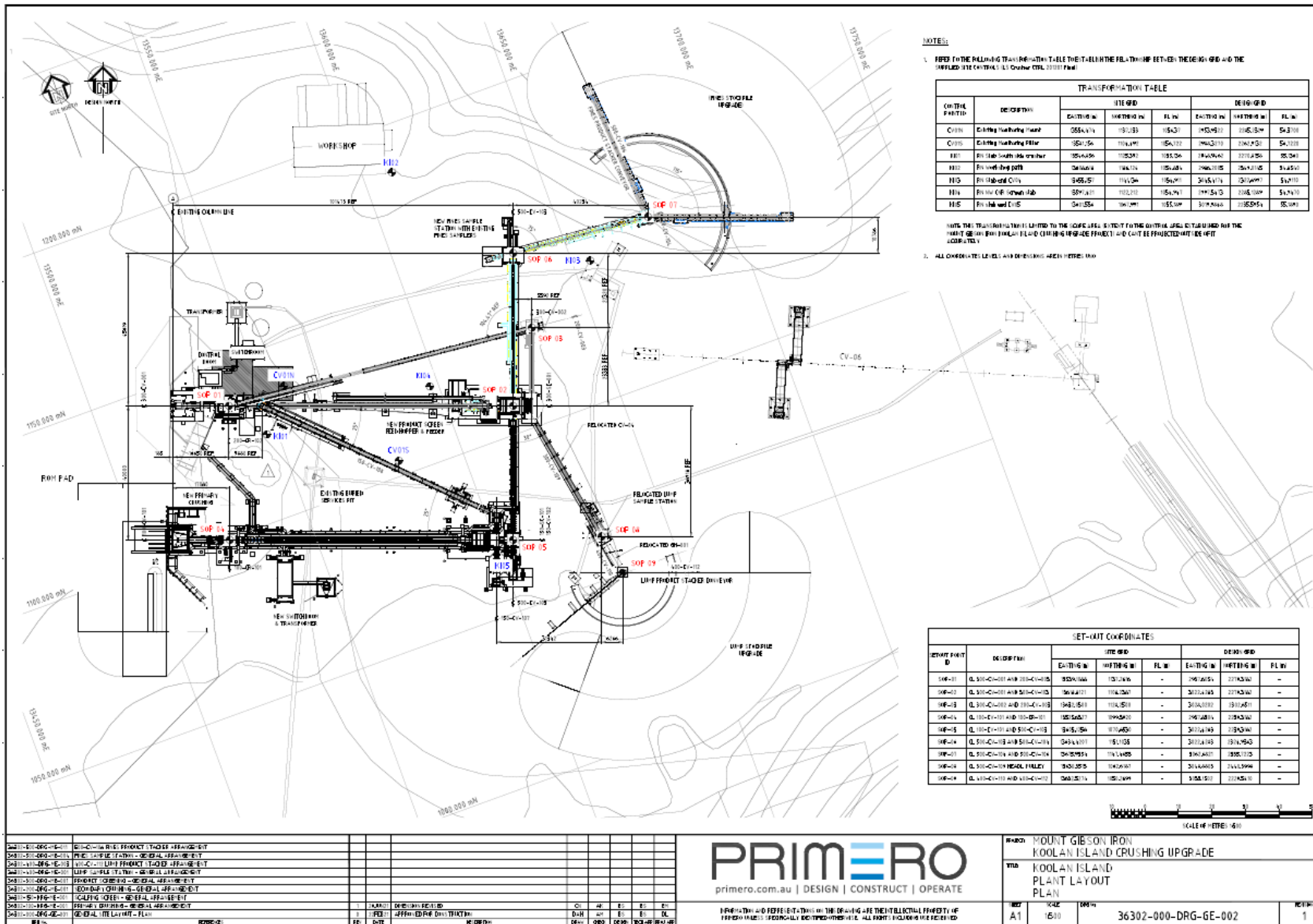
The installation of the proposed primary crusher will allow for an increase in the design capacity of the circuit therefore additional capacity for the crushing and screening facility is being sought. The new design will result in an estimated maximum design throughput of 7 million tonnes per annum. With a utilisation of 80% and availability of 85%, this accounts for a throughput of no more than 5 million tonnes per annum.

Mined material from the Main Pit is blasted, excavated and loaded onto haul trucks and transported to either a designated waste dump or to the Run of Mine (ROM) ore stockpile. An area to the east of the Main Pit is and will continue to be used as the ROM pad and stockpile. Ore material from the ROM stockpile is loaded by front end loaders into the processing plant. A two-stage crushing and screening plant exists and will continue to be used to the east of the Main Pit to produce up to five million tonnes of ore per annum. The processing plant is located approximately 500 metres from the sea. The processing plant only includes dry processing. The dry crushing and screening plant comprises of a jaw and cone crusher, double deck vibrating screening and a lump and fines stacker.

Once the material has passed through the crushing and screening plant, it is stored in either the fines or lump stockpiles. The material is then fed by front end loaders into mobile reclaim hoppers onto conveyor belts to the ship loading facility at the port. Dust suppression sprinklers are located on the transfer points, ROM pad and hoppers.

Figure 1 below shows the proposed arrangement of the crushing and screening plant.

Figure 1: Proposed arrangement of crushing and screening facility



Licence: L8148/2006/4

IR-T15 Amendment report template v3.0 (May 2021)

This amendment is limited only to changes to Category 5 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Category 6, 12, 54, 58, 64 and 73 have been requested by the Licence Holder.

Table 1 below outlines the proposed changes to the existing Licence

**Table 1: Proposed throughput capacity changes**

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
5	4 million tonnes per annum.	5 million tonnes per annum.	Addition of a new primary crusher and refurbishment of existing infrastructure within the crushing circuit.

## 2.3 Part IV of the EP Act

The Koolan Iron Ore Mine and Port Facility was assessed by the Environmental Protection Authority (EPA) under EPA Bulletin 1203 and approved under Ministerial Statement (MS) 715 in February 2006.

MS 715 covers monitoring and protection of the following environmental receptors which could potentially be impacted by increased emissions and discharges from the proposed amendment. These receptors are listed in Table 4. This decision report only assesses emissions and discharges from the proposed activities and does not re-consider the management procedures outlined in MS 715.

The requirements of MS 715 are not re-assessed in this decision report and are not duplicated as conditions in the works approval.

## 3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

### 3.1 Source-pathways and receptors

#### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this Amendment Report are detailed in Table 2 below.

Table 2 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

**Table 2: Licence Holder controls**

Emission	Sources	Potential pathways	Proposed controls
Dust	Crushing of material, vehicle movements, lift-off from stockpiles and/or stored product, earthworks etc.	Air/windborne pathway	<ul style="list-style-type: none"> <li>- Water carts applying water on roads</li> <li>- Sprays at the Jaw and Hopper</li> <li>- Sprays on coffin and head chute of CV1</li> <li>- Majority of chutes and transfer points have sprays and/or hatched doors such as leather or rubber flaps</li> <li>- Ship loader has a snorkel from the wharf to the ship which has the capability for dust suppression to be further enhanced by a spray</li> <li>- Transfer point from CV7 to ship loader has a water spray (relation to ship loader)</li> <li>- Transfer from CV6 to CV7 has a spray (transfer to ship loader)</li> </ul>
Noise	Crushing of material, operations, vehicle movements.	Air/windborne pathway	Noise has been screened out under this assessment. There is not expected to be a meaningful increase in noise levels to warrant re-assessment.

### 3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation. Table 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)).

**Table 3: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Closest human receptor is Cockatoo Island	10 km North west of the premises <b>Not considered a receptor due to distance.</b>
Environmental receptors	Distance from prescribed activity
5 native flora species of conservation significance including <i>Phyllanthus aridus</i> <i>Gymnanthera cunninghamii</i> <i>Brachychiton xanthophyllus</i> <i>Corymbia</i> aff. <i>Cadophera</i> <i>Eucalyptus kenneallyi</i> .	Found on mining tenement, land clearing, monitoring procedures and contingency measures are managed under MS 715 and is therefore not further considered in this risk assessment.
Native fauna including species of conservation significance <i>Ramphotyphlops yampiensis</i> (Blind Snake) <i>Erythrotriorchis radiatus</i> (Red Goshawk) <i>Dasyurus hallucattus</i> (Northern Quoll) <i>Macroderma gigas</i> (Ghost Bat) <i>Rhinonicteris aurantius</i> (Orange leaf-nosed Bat) <i>Hipposideros stenotis</i> (Northern Leaf-nosed Bat) Short range endemic invertebrate fauna including the land snails <i>Kimboraga koolanesis</i> and <i>Amplirhagada astute</i> .	Found on mining tenement, land clearing, monitoring procedures and contingency measures are managed under MS 715 and is therefore not further considered in this risk assessment.

## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The Revised Licence L8148/2006/4 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. crushing and screening activities.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).



**Table 4. Risk assessment of potential emissions and discharges from the Premises during construction and operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
<b>Construction</b>								
Upgrade of crushing and screening equipment and installation of new components.	Dust	Air/windborne pathway causing impacts to health and amenity	Conservation significant flora and fauna found on the island	Refer to Section 3.1	C = Slight L = Possible <b>Low Risk</b>	Y	N/A	Sufficiently covered under MS 715 and existing licence conditions.
<b>Operation</b>								
Screening, crushing, unloading, loading and storage of material Vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenity	Conservation significant flora and fauna found on the island	Refer to Section 3.1	C = Slight L = Possible <b>Low Risk</b>	Y	N/A	Sufficiently covered under MS 715 and existing licence conditions.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

## 4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

**Table 5: Consultation**

Consultation method	Comments received	Department response
Applicant was provided with draft documents on 7 October 2021	N/A	N/A

## 5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

### 5.1 Summary of amendments

Table 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

**Table 6: Summary of licence amendments**

Condition no.	Proposed amendments
N/A	Title page – assessed production capacity amended for Cat 5 from 4,000,000 to 7,000,000 tonnes per annum.
1.2.2 & 1.2.3	Construction requirements for refurbishment of the screening plant and submission of compliance report.
1.3.5 Table 1.3.3	Category 5 capacity limit amended from 4,000,000 to 5,000,000 tonnes per annum.

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
4. Email titled "L8148/2006/4 Kolan Iron Ore Pty Ltd – Amendment application" dated 05/08/2021, authored by Mount Gibson Iron Limited, available at DWER records (DWERDT487594).

## Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY				
<b>Application type</b>				
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L8148/2006/4	
		Relevant works approval number:		N/A
Date application received		05/08/2021		
<b>Applicant and Premises details</b>				
Applicant name/s (full legal name/s)		Koolan Iron Ore Pty Ltd		
Premises name		Koolan Iron Ore Mine and Port Facility		
Premises location		Mining Tenements M04/416, M04/417 and L04/29		
Local Government Authority		Shire of Derby-West Kimberly		
<b>Application documents</b>				
HPCM file reference number:		DER2014/000374-1~12		
Key application documents (additional to application form):		Combined_IR-F09 Application form works approval licence_LA_crusher2021		
<b>Scope of application/assessment</b>				
Summary of proposed activities or changes to existing operations.		Licence amendment Operation of Category 5 premises – increase design capacity from 4 million tonnes per annum to 7 million tonnes per annum.		

**Category number/s (activities that cause the premises to become prescribed premises)**

**Table 1: Prescribed premises categories**

<b>Prescribed premises category and description</b>	<b>Assessed production or design capacity</b>	<b>Proposed changes to the production or design capacity</b>
Category 5: Processing or beneficiation of metallic or non-metallic ore.	Assessed – 4,000,000 tonnes per Annual Period.	Proposed – 7,000,000 tonnes per Annual Period
Category 6: Mine dewatering	Assessed – 5,000,000 tonnes per Annual Period.	No change
Category 12: Screening etc. of material.	Assessed - 2,000,000 tonnes per Annual Period	No change
Category 54: Sewerage facility	Assessed – 100 cubic meters per day	No change
Category 58: Bulk material loading or unloading	Assessed – 75,000 tonnes per day	No change
Category 64: Class II or III putrescible landfill site.	4,500 tonnes per Annual Period	No change
Category 73: Bulk storage of chemicals.	1,200 cubic metres in aggregate.	No change

**Legislative context and other approvals**

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input checked="" type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 715 EPA Report No: Bulletin 1203
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Reference No: EPBC 2006/2522; EPBC 2013/6752  A 2018 compliance audit was conducted and the proponent was found to be compliant with 15 out of the 16 criteria. 1 criteria was found to be not applicable. No criteria were found to be non-compliant.
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Mining lease / tenement <input checked="" type="checkbox"/> M04/416 Expiry: 20/04/2027 M04/417 Expiry: 20/04/2027 L04/29 Expiry: 07/07/2025

Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	If N/A explain why? Activities taking place on a mining tenement.
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Type: N/A Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: North West
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Mining Act 1978</i> <i>Environment Protection and Conservation Act 1999.</i> <i>Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007.</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Classification: possibly contaminated – investigation required (PC-IR) Date of classification: 02 January 2015