



# Licence

## *Environmental Protection Act 1986, Part V*

**Licensee:**           **Polaris Metals Pty Ltd**

**Licence:**           **L8596/2011/1**

**Registered office:**           Polaris Metals Pty Ltd  
1 Sleat Road  
APPLECROSS WA 6153

**ACN:**                           085 223 570

**Premises address:**           Carina Iron Ore Project  
Mining licences L15/303, L15/318, L15/340, L15/305, L15/306,  
L15/329, L15/311, L15/310 and general purpose lease G15/21  
Mount Walton Road  
KOOLYANOBING WA 6427

**Issue date:**                   Friday 18 November 2011

**Commencement date:**       Monday, 21 November 2011

**Expiry date:**                 Sunday, 20 November 2016

**Amendment date:**           Thursday, 21 November 2013

**Prescribed premises category**

Schedule 1 of the Environmental Protection Regulations 1987

Category number	Category description	Category production or design capacity	Premises production or design capacity
05	Processing or beneficiation of metallic or non-metallic ore: premises on which – (a) Metallic or non-metallic ore is crushed, ground, milled or otherwise processed; (b) Tailings from metallic or non-metallic ore are reprocessed; or (c) Tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	50 000 tonnes or more per year	5 000 000 tonnes per annual period
54	Sewage facility: premises – (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	100 cubic metres or more per day	100 cubic metres per day (m <sup>3</sup> /day)

**Conditions of licence**

Subject to the conditions of the licence set out in the attached pages.

Date signed: 21 September 2013

.....  
Danielle Eyre  
Officer delegated under section 20  
of the *Environmental Protection Act 1986*



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## Introduction

This introduction is not part of the licence conditions.

### Who we are

The Department of Environment Regulation (DER) is a Government Department for the State of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

### Our industry licensing role

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER works with the business owners, community, consultants, industry and other representatives to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

### Licence requirements

This licence is issued under Part V of the Act. Conditions contained with the licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the premises/licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:

<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your premises relevant statutory instruments include but are not limited to obligations under the:

- Environmental Protection (Unauthorised Discharges) Regulations 2004 – these regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the regulations.
- Environmental Protection (Controlled Waste) Regulations 2004 - these regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.



- Environmental Protection (Noise) Regulations 1997 – these regulations require noise emissions from the premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply. Licence holders are also reminded of the requirements of section 53 of the Act which places 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.

#### Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non-payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your premises.

#### Ministerial conditions

If your premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

#### Premises description and licence summary

This licence is for the operation of an iron ore crushing and screening plant and a waste water treatment plant (WWTP) as part of the Carina Iron Ore Project (CIOP) of Polaris Metals Pty Ltd. The crushing and screening plant has the design capacity to process 5,000,000 tonnes per year (t/ yr) of ore. Ore is extracted from the site via a single open pit mine of approximately 40 hectares (ha). Extracted ore is graded into separate stock piles before being blended into the crushing and screening plant. The crushing circuit configuration comprises a crusher and screen circuit with closed circuit conveyors and stackers. Dust emissions are expected to be the main emission of concern from the crushing and screening operations.

The WWTP is to be used for the accommodation village at the CIOP. The WWTP will use a Sequence Batch Reactor (SBR) technology and has a design capacity of 100 cubic metres (m<sup>3</sup>) per day. The treated waste water is proposed to be piped to an irrigation area approximately two kilometres (km) south of the accommodation area for controlled discharge. The irrigation area will be 0.4ha in size and be covered with indigenous scrub vegetation. This licence is the result of an amendment sought by the licensee to upgrade the details pertaining to the category 54 WWTP irrigation area and Category 5 design capacity relating to licence L8596/2011/1.

The licences and works approvals issued for the premises since 14/03/2011 are:

Instrument log		
Instrument	Issued	Description
W4815/2010/1	14/03/2011	Works approval to build site
L8596/2011/1	17/11/2011	New licence
L8596/2011/1	15/12/2011	Amendment to correct typographical error
W4726/2010/1	10/02/2011	Works approval to construct crushing and screening plant
L8596/2011/1	14/06/2012	Licence amendment to incorporate category 5 operations
L8596/2011/1	21/11/2013	Licence amendment to change category 85 to 54 and category 5 design capacity

#### Severance

It is the intent of these licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this licence to impose and are not otherwise *ultra vires* or invalid.

**END OF INTRODUCTION**



## Licence conditions

### 1 General

#### 1.1 Interpretation

1.1.1 In the licence, definitions from the Act apply unless the contrary intention appears.

1.1.2 In the licence, unless the contrary intention appears:

“**the Act**” means the *Environmental Protection Act 1986*;

“**annual**” means the inclusive period from 1 January until 31 December in the same year;

“**APHA-AWWA-WEF**” means American Public Health Association – American Water Works Association – Water Environment Federation;

“**AS/NZS 5667.1**” means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*;

“**AS/NZS 5667.10**” means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*;

“**CEMS**” means continuous emissions monitoring system;

“**code of practice for the storage and handling of dangerous goods**” means the Department of Mines and Petroleum, 2010, *Storage and handling of dangerous goods — code of practice* (2nd edition): Resources Safety, Department of Mines and Petroleum, Western Australia;

“**controlled waste**” has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

“**dangerous goods**” has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;

“**Director**” means Director, Environmental Regulation Division of the Department of Environment Regulation for and on behalf of the Chief Executive Officer as delegated under Section 20 of the *Environmental Protection Act 1986*;

“**Director**” for the purpose of correspondence means;

Regional Leader - Industry Regulation  
(Goldfields)

Department of Environment Regulation

PO Box 10173

KALGOORLIE WA 6430

Telephone: (08) 9080 5555

Facsimile: (08) 9021 7831

Email: [Kalgoorlie@der.wa.gov.au](mailto:Kalgoorlie@der.wa.gov.au);

“**environmentally hazardous material**” means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include



dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;

“**fugitive emissions**” means all emissions not arising from point sources identified in section 2.4;

“**hardstanding**” means a surface with a permeability of less than  $10^{-9}$  metres per second or less;

“**licence**” means this licence numbered **L8596/2011/1** and issued under the *Environmental Protection Act 1986*;

“**licensee**” means the person or organisation named as licensee on page 1 of the licence;

“**NATA**” means the National Association of Testing Authorities, Australia;

“**NATA accredited**” means the submission of a sample to a laboratory which is NATA accredited for the analysis specified at the time of the analysis;

“**placard quantity**” has the meaning defined in the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007;

“**premises**” means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on Page 1 of the licence;

“**usual working day**” means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia;

“**waste**” has the meaning defined in the *Environmental Protection Act 1986*.

1.1.3 Any reference to an Australian or other standard in the licence means the relevant parts of the current version of that standard

1.1.4 Any reference to a guideline or code of practice in the licence means the current version of the guideline or code of practice.

## **1.2 General conditions**

1.2.1 Nothing in the licence shall be taken to authorise any emission that is not mentioned in the licence, where the emission amounts to:

- (a) pollution;
- (b) unreasonable emission;
- (c) discharge of waste in circumstances likely to cause pollution; or
- (d) being contrary to any written law.

1.2.2 The licensee shall provide to the Director prior written notice of any works it intends to undertake on the premises that may:

- (a) cause any emission;
- (b) alter the volume, nature, location or source of any emission;
- (c) alter the method of detecting, monitoring or measuring any emission; or
- (d) involve the installation, alteration or replacement of any emission causing process equipment or industrial plant.

1.2.3 The licensee, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.



- 1.2.4 The licensee shall maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.
- 1.2.5 The licensee shall immediately recover, or remove and dispose of spills or leaks of environmentally hazardous materials.
- 1.2.6 The licensee shall ensure that uncontaminated stormwater is kept separate from contaminated or potentially contaminated stormwater. Where stormwater has come into contact with possible sources of contamination it should be treated as contaminated.
- 1.2.7 The licensee shall:
  - (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the premises; and
  - (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the premises.<sup>1</sup>

Note 1: The Environmental Protection (Unauthorised Discharges) Regulations 2004 make it an offence to discharge certain materials into the environment.

**1.3 Premises operation**

- 1.3.1 The licensee shall ensure that all pipelines containing environmentally hazardous substances are either:
  - (a) equipped with automatic cut-outs in the event of a pipe failure; or
  - (b) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.
- 1.3.2 The licensee shall only allow waste to be accepted on to the premises if:
  - (a) it is of a type listed in Table 1.3.2;
  - (b) the quantity accepted is below any limit listed in Table 1.3.2; and
  - (c) it meets any specification listed in Table 1.3.2.

<b>Table 1.3.2: Waste acceptance</b>		
<b>Waste</b>	<b>Quantity limit</b>	<b>Specification</b>
Sewage and wastewater	100m <sup>3</sup> per day	Accepted from the Carina Iron Ore project accommodation facilities only, via sewerage pump station.

- 1.3.3 The licensee shall ensure that the wastes accepted onto the premises are only subjected to the process set out in Table 1.3.3 and in accordance with any process limits described in that table.

<b>Table 1.3.3: Waste processing</b>		
<b>Waste type</b>	<b>Process</b>	<b>Process limits</b>
Sewage	SBR Treatment	None specified

- 1.3.4 The licensee shall ensure that the irrigation of treated wastewater meets the following:
  - (a) no irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the premises;
  - (b) wastewater is evenly distributed over the irrigation area; and
  - (c) no soil erosion occurs.



1.3.5 The licensee shall ensure that only materials listed in Table 1.3.5 are subject to crushing and screening processes on the premises.

<b>Table 1.3.5: Inputs</b>
<b>Material inputs</b>
Iron ore

## 2 Emissions

### 2.1 General

2.1.1 The licensee shall record and investigate the exceedence of any descriptive or numerical limit and/or target in this section.

#### 2.2-2.4 Emissions to air, surface water or groundwater

There are no specified conditions relating to emissions to air, surface waters or groundwater in these sections.

### 2.5 Emissions to land

2.5.1 The licensee is permitted, subject to conditions in the licence, to emit waste to land through the emissions points listed in Table 2.5.1.

<b>Table 2.5.1: Emission points to land</b>		
<b>Emission point reference</b>	<b>Description</b>	<b>Source</b>
L1	Irrigation area (0.5ha)	Class C storage tank, treated wastewater

2.5.2 The licensee shall target emissions to land at or below the levels specified listed in Table 2.5.2.

<b>Table 2.5.2: Emission targets to land</b>			
<b>Emission point reference</b>	<b>Parameter</b>	<b>Target (including units)</b>	<b>Reference period</b>
L1 and at the discharge point at the turkey's nest	Biochemical oxygen demand (BOD)	<10mg/L	Spot sample
	Total suspended solids (TSS)	<30mg/L	
	Total nitrogen (TN)	<40mg/L	
	Total phosphorus (TP)	<6mg/l	
	pH	pH 6.5 – 8.5	
	Thermotolerant coliforms (including <i>E.coli</i> )	<1000cfu /100ml	

### 2.6 Fugitive emissions

2.6.1 The Licensee shall use all reasonable and practical measures to prevent and where that is not practicable to minimise dust emissions from the Premises.





- 2.6.2 The licensee shall use all reasonable and practical measures to ensure that no visible dust generated by the activities of the premises crosses the boundary of the premises.
- 2.6.3 The licensee shall ensure that dust emitted from the premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the premises.

## **2.7 Odour**

- 2.7.1 The licensee shall ensure that odour emitted from the premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person who is not on the premises.

## **2.8 Noise**

There are no conditions relating to noise in this section.

# **3 Monitoring**

## **3.1 General monitoring**

- 3.1.1 The licensee shall ensure that:
- (a) all water samples are collected in accordance with AS/NZS 5667.1;
  - (b) all water samples are analysed in accordance with "Standard Methods for Examination of Water and Wastewater APHA-AWWA-WEF"; and
  - (c) all samples are submitted to a laboratory with current NATA accreditation for the parameters to be measured.
- 3.1.2 The licensee shall record production or throughput data and any other process parameters relevant to any non-continuous or CEMS monitoring undertaken.
- 3.1.3 The licensee shall have all monitoring equipment referred to in any condition of the licence calibrated in accordance with the manufacturer's specifications, the requirements of the licence and any relevant Australian standard.
- 3.1.4 The licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the Director accompanied with a report comprising details of any modifications to the methods.

## **3.2 Monitoring of emissions to air**

- 3.2.1 The licensee shall use all reasonable and practicable measures to prevent and where that is not practicable, minimise dust emissions from the premises.

## **3.3-3.4 Monitoring of emissions to surface or groundwater**

There are no specified conditions relating to monitoring of emissions to water in this section.

## **3.5 Monitoring of emissions to land**

- 3.5.1 The licensee shall undertake the monitoring in Table 3.5.1 according to the specifications in that table.





<b>Table 3.5.1: Monitoring of emissions to land</b>				
<b>Emission point reference<sup>2</sup></b>	<b>Parameter</b>	<b>Units</b>	<b>Reference period</b>	<b>Frequency<sup>1</sup></b>
L1 and discharge point at turkey's nest	Biochemical oxygen demand (BOD)	mg/L	Spot sample	Monthly
	Total suspended solids (TSS)	mg/l		
	Total nitrogen (TN)	mg/L		
	Total phosphorus (TP)	mg/L		
	pH	pH value		
	Thermotolerant coliforms (Including <i>E.coli</i> )	cfu /100 mL		
	Volume discharged	m <sup>3</sup>	Each discharge	

Note 1: Monthly monitoring shall be undertaken at least 15 days apart.  
 Note 2: L1 is monitored at the outlet from the WWTP

3.5.2 All sampling of wastewaters in Table 3.5.1 shall be conducted in accordance with AS/NZS 5667.10.

### 3.6-3.7 Monitoring of inputs and process monitoring

There are no specified conditions relating to the monitoring of inputs or process monitoring in these sections.

### 3.8 Monitoring of Noise

There are no specified conditions relating to environmental quality monitoring in this section.

## 4 Improvements

### 4.1 Improvement program

4.1.1 The licensee shall complete the improvements in Table 4.1.1 by the date specified.

<b>Table 4.1.1: Improvement programme</b>		
<b>Emission point Reference</b>	<b>Improvement</b>	<b>Completion period</b>
IR1	Reduce the total nitrogen (TN) of the wastewater treatment plant to:  <p style="text-align: right;">&lt;25 mg/L</p>	Within one year of the wastewater quality improvement plan being approved by DER
IR2	The licensee shall monitor monthly the health and condition of vegetation located at the irrigation area.  Any decline in vegetation cover is to be reported within 72 hours.  An annual report is to be submitted within the Annual Environmental Report on the condition of the vegetation cover at the irrigation area.	Submission of the Annual Environmental Report (AER) or sooner if any decline in vegetation is noted.
IR3	The licensee shall develop and submit for	Within three months from the issue of



	review to the director a wastewater quality improvement plan for the wastewater treatment plant to reduce total nitrogen and total phosphorus parameters.	this licence amendment
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## 5 Information

### 5.1 Records

- 5.1.1 All information and records required by the licence shall:
- be legible;
  - if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
  - except for records listed in 5.1.1(d) be retained for at least six years from the date the records were made or until the expiry of the licence or any subsequent licence; and
  - for those following records, be retained until the expiry of the licence and any subsequent licence:
    - off-site environmental effects; or
    - matters which affect condition of the land or groundwater.
- 5.1.2 The licensee shall ensure that:
- any person left in charge of the premises is aware of the conditions of the licence and has access at all times to the licence or copies thereof; and
  - any person who performs tasks on the premises is informed of all of the conditions of the licence that relate to the tasks which that person is performing.
- 5.1.3 The licensee shall complete an Annual Audit Compliance Report indicating the extent to which the licensee has complied with the conditions of the licence and any previous licence issued under Part V of the Act for the premises for the previous year.
- 5.1.4 The licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the premises and any action taken in response to the complaint.

### 5.2 Reporting

- 5.2.1 The licensee shall submit to the Director at the contact address the Annual Environmental Report within 28 calendar days after of the end of the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

<b>Table 5.2.1: Annual Environmental Report</b>		
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Format or form<sup>1</sup></b>
5.1.4	Compliance	AACR
Table 3.5.1	Biochemical oxygen demand, total suspended solids, total nitrogen, total phosphorus, pH, thermotolerant coliforms (including <i>E.coli</i> )	LR1
2.1.1	Limit/ target exceedence	None specified
Table 3.5.1	Volume discharged	
Table 1.3.3	Quantity of material inputs processed on a monthly basis	
-	Measures taken to suppress dust	

Note 1: Forms are in Schedule 2

- 5.2.2 The Annual Environmental Report shall also contain:
- any relevant process, production or operational data recorded under Condition 3.1.2;



- (b) an assessment of the information contained within the report against previous monitoring results and licence limits and/or targets; and
- (c) any original monitoring reports submitted to the licensee from third parties.

5.2.3 The licensee shall submit the information in Table 5.2.2 to the Director according to the specifications in that table.

<b>Table 5.2.2: Non-annual reporting requirements</b>				
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Reporting period</b>	<b>Reporting date (after end of the reporting period)</b>	<b>Format or form<sup>1</sup></b>
Table 3.5.1	Target exceedances	Monthly	28 calendar days	ET1

Note 1: Forms are in Schedule 2

### 5.3 Notification

5.3.1 The parameters listed in Table 5.3.1 shall be notified to the Director at the contact address and in accordance with the notification requirements of the table.

<b>Table 5.3.1: Notification requirements</b>			
<b>Condition or table</b>	<b>Parameter</b>	<b>Notification requirement<sup>1</sup></b>	<b>Format or form<sup>2</sup></b>
-	Taking the SBR treatment plant offline for maintenance works	No less 72 hours in advance of works	None specified
2.1.1	Breach of any limit specified in the licence Any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	Part A: As soon as practicable but no later than 5PM of the next usual working day. Part B: As soon as practicable.	N1

Note 1: No notification requirement in the licence shall negate the requirement to comply with s72 of the Act.

Note 2: Forms are located in Schedule 2

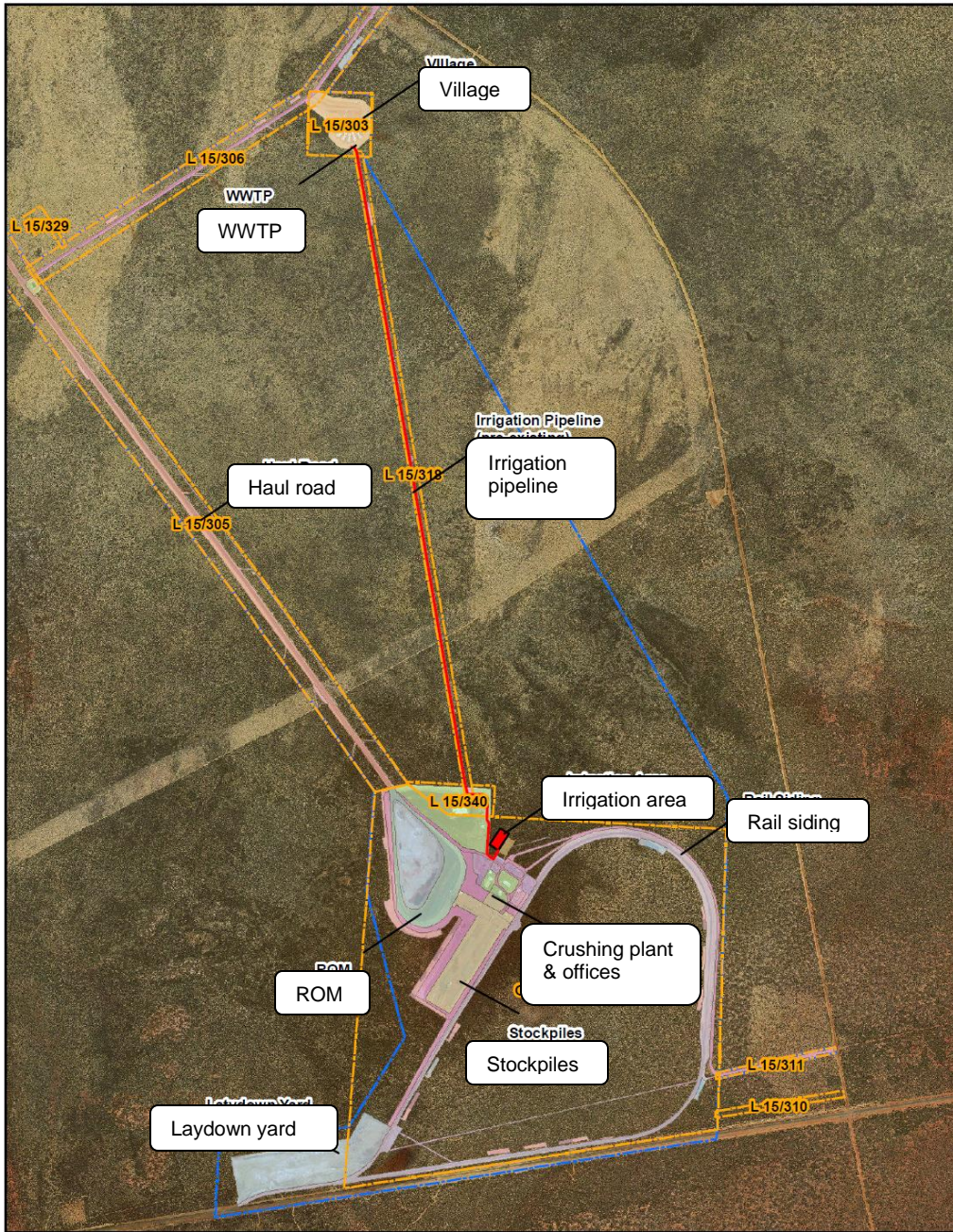




# Schedule 1: Maps

## Premises map

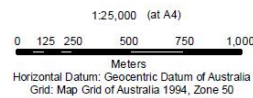
The orange line defines the premises boundary



**Figure 1**  
Irrigation  
Infrastructure

Date: 9/07/2013  
Rev: 1  
Drawn By: S. Kinsey

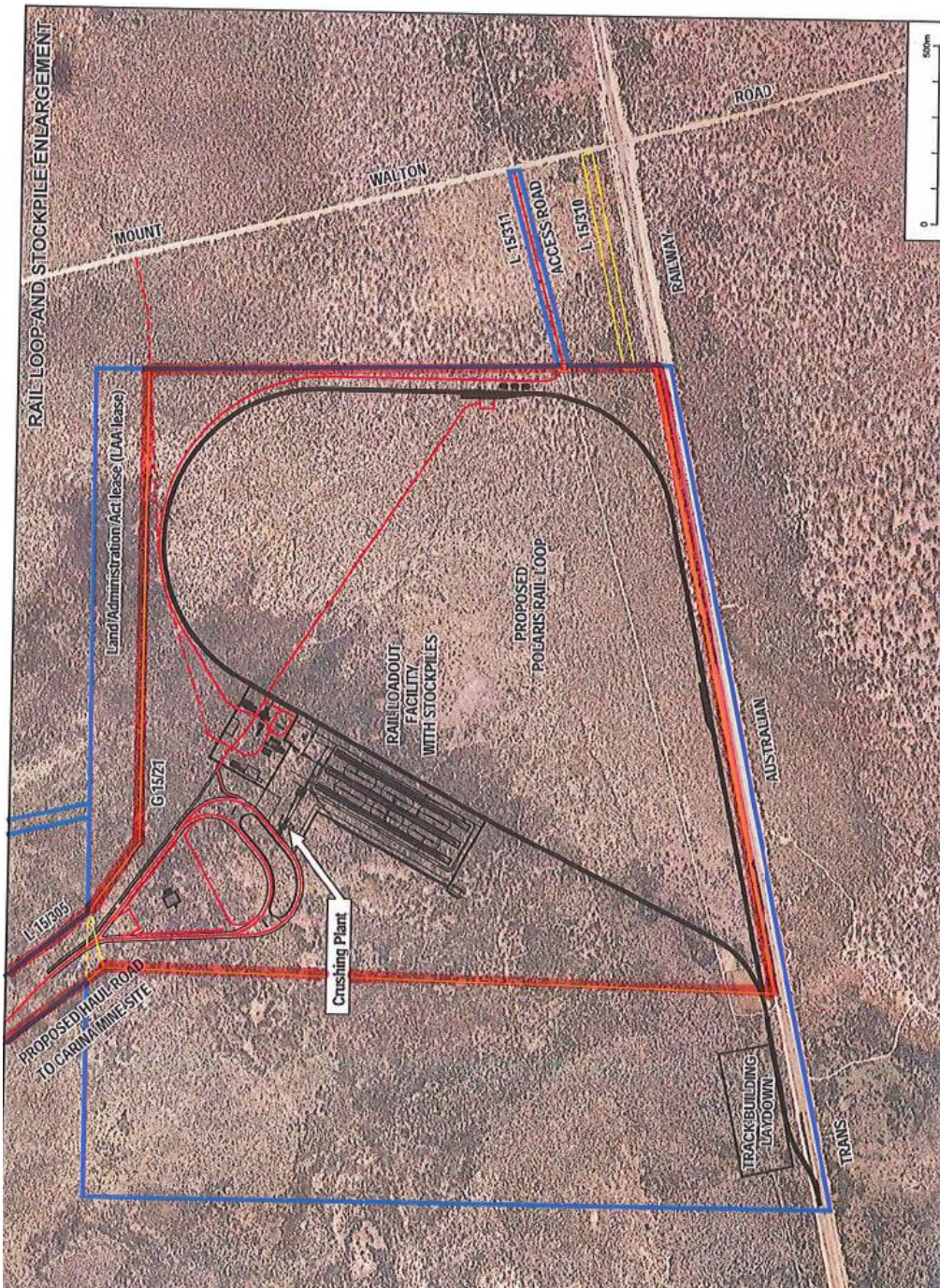
LEGEND	
	Irrigation Pipeline (Existing)
	Irrigation Area
	Tenement Boundary
	EPA Project Boundary
	Access Track
	Borrow Pit
	Camp
	Fuel Bay
	Haul Road
	Laydown Yard
	Offices and Workshops
	ROM Pad
	Rail Siding
	Stockyards and Plant
	Topsoil Stockpile
	Turkey Nest
	Vegetation Stockpile







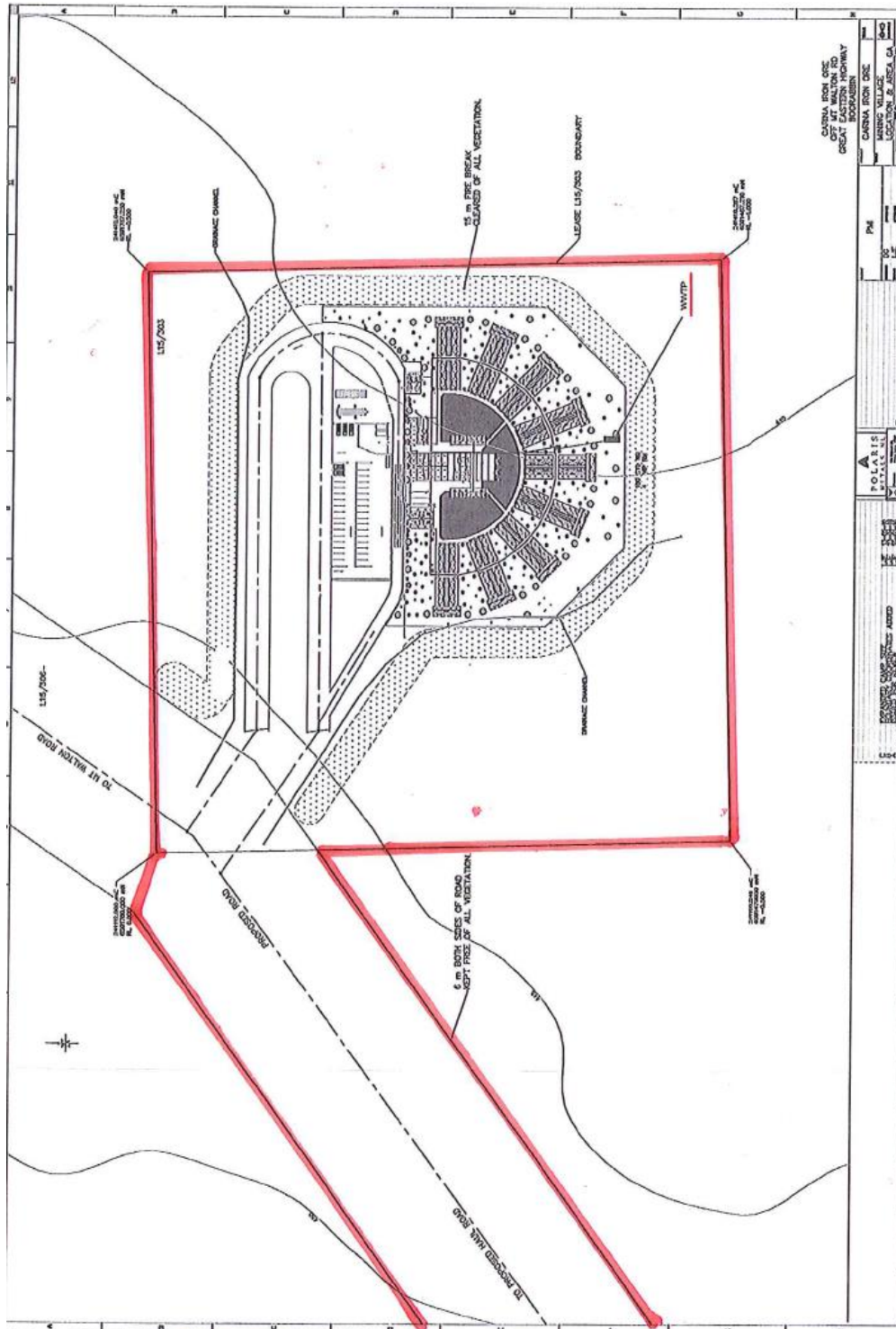
Map 1(a) Premises boundary







**Map 1(b) Rail siding enlargement – crushing plant.**





## Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the licence. They can be requested in an electronic format.

Copies of the original monitoring reports must also be submitted.

Licence: **L8596/2011/1** Licensee: **Polaris Metals Pty Ltd**  
 Form: AACR Period:  
 Name: Annual Audit Compliance Report

### Annual Audit Compliance Report

#### Section A: Statement of compliance with licence conditions

Were all conditions of licence complied with within the reporting period?		
Yes	<input type="checkbox"/>	Initial sections A & B, then proceed to section C
No	<input type="checkbox"/>	Initial section A, then proceed to section B

Each page must be initialled by the person(s) who signs section C of the Annual Audit Compliance Report (AACR).

Initial:





**Section B: Details of non-compliance with licence condition**

a) Licence condition not complied with?	
b) Date(s) and time(s) the non-compliance occurred, if applicable?	
c) Was this noncompliance reported to DER?	
<input type="checkbox"/> Yes, and <input type="checkbox"/> Reported to DER verbally    Date <input type="checkbox"/> Reported to DER in writing    Date	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non-compliance?	
e) Summary of particulars of non-compliance, and what was the environmental impact?	
f) If relevant, the precise location where the non-compliance occurred (attach map or diagram)	
g) Cause of non-compliance	
h) Action taken or that will be taken to mitigate any adverse effects of the non-compliance	
i) Action taken or that will be taken to prevent recurrence of the non-compliance	

Please use a separate page for each licence condition that was not complied with. Each page must be initialled by the person(s) who signs section C of this AACR

Initial:



## Section C: Signature and certification

This AACR may only be signed by a person(s) with legal authority to sign it as defined below. Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The AACR must be signed and certified:
an individual	<input type="checkbox"/>  <input type="checkbox"/>	by the individual licence holder, or  by a person approved in writing by the Chief Executive Officer (CEO) of DER to sign on the licensee's behalf.
a corporation	<input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>  <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or  by two directors of the licensee; or  by a director and a company secretary of the licensee, or  if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or  by the principal executive officer of the licensee; or  by a person with authority to sign on the licensee's behalf who is approved in writing by the CEO of DER.
A public authority (other than a local government)	<input type="checkbox"/>  <input type="checkbox"/>	by the principal executive officer of the licensee; or  by a person with authority to sign on the licensee's behalf who is approved in writing by the CEO of DER.
a local government	<input type="checkbox"/>  <input type="checkbox"/>	by the CEO of the licensee; or  by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this AACR is correct and not false or misleading in a material particular.

Signature:

\_\_\_\_\_  
Name: (printed)

\_\_\_\_\_  
Position:

\_\_\_\_\_  
Date: / /

Seal (if signing under seal)

Signature:

\_\_\_\_\_  
Name: (printed)

\_\_\_\_\_  
Position:

\_\_\_\_\_  
Date: / /



Licence: **L8596/2011/1**  
Form: **LR1**

Licensee: **Polaris Metals Pty Ltd**  
Period :

<b>Form LR1: Monitoring of emissions to land</b>							
<b>Emission point</b>	<b>Parameter</b>	<b>Target</b>	<b>Result</b>	<b>Result (g/s)</b>	<b>Reference period</b>	<b>Method</b>	<b>Sample date &amp; times</b>
L1	Biochemical oxygen demand (BOD)	<10mg/L					
	Total suspended solids (TSS)	<30mg/L					
	Total nitrogen (TN)	<40mg/L					
	Total phosphorus (TP)	<6mg/L					
	pH	pH 6.5 – 8.5					
	<i>E. coli</i>	<1000 cfu/100mL					
	<i>Volume discharged</i>	m <sup>3</sup>					

Signed on behalf of **Polaris Metals Pty Ltd**: ..... Date: .....



Licence: **L8596/2011/1**  
Form: **ET1**  
Name: **Target exceedances**

Licensee: **Polaris Metals Pty Ltd**  
Period:

**Form ET1: Target exceedances**

Please provide an analysis of the target exceedances for the month, including but not limited to:

- (a) the emission point
- (b) the root cause analysis for the exceedances;
- (c) any common or contributory factors; and
- (d) a description of remedial measures taken or planned to be taken, including those taken to prevent recurrence of the exceedances.

Signed on behalf of **Polaris Metals Pty Ltd**: ..... Date: .....



Licence: **L8596/2011/1**  
Form: N1

Licensee: **Polaris Metals Pty Ltd**  
Date of breach:

**Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.**

These pages outline the information that the operator must provide.  
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

**Part A**

Licence number	L8596/2011/1
Name of operator	Polaris Metals Pty Ltd
Location of premises	
Time and date of the detection	

<b>Notification requirements for the breach of a limit</b>	
<b>To be notified as soon as practicable and no later than 5PM of the next working day</b>	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

<b>Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution</b>	
<b>To be notified as soon as practicable and no later than 5PM of the next working day</b>	
Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken , or intended to be taken, to stop any emission	
Description of the failure or accident	



### Part B - to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the installation in the preceding 24 months.	

Name	
Post	
Signature on behalf of <b>Polaris Metals Pty Ltd</b>	
Date	



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:** Polaris Metals Pty Ltd

**Licence:** L8596/2011/1

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**Registered office:** Polaris Metals Pty Ltd  
1 Sleat Road  
APPLECROSS WA 6153

**ACN:** 085 223 570

**Premises address:** Carina Iron Ore Project  
Mining licences L15/303, L15/318, L15/340, L15/305, L15/306, L15/329,  
L15/311, L15/310 and general purpose lease G15/21  
Mount Walton Road  
KOOLYANOBING WA 6427

**Issue date:** Friday 18 November 2011

**Commencement date:** Monday 21 November 2011

**Expiry date:** Saturday, 29 November 2016

**Amendment date:** Thursday, 21 November 2013

### **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 licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by:

C. Conway-Physick  
Environmental Officer – Industry Regulation  
(Midwest)

Decision Document authorised by:

J. Milne  
Regional Leader – Industry Regulation  
(Goldfields)

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## Contents

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2	Administrative summary	3
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## 1 Purpose of this document

The Decision Document explains how DER has assessed and determined the application for a works approval or licence 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.

### Works approval and licence conditions

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows:

#### Standard conditions

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.3, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.3, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

#### Optional standard conditions

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions are justified in section 4 of this document.

#### Non standard conditions

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in section 4.



## 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	<table border="1"> <thead> <tr> <th>Category number(s)</th> <th>Design capacity</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>5,000,000 tonnes per year</td> </tr> <tr> <td>54</td> <td>100 cubic metres per day</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Category number(s)	Design capacity	5	5,000,000 tonnes per year	54	100 cubic metres per day				
	Category number(s)	Design capacity									
	5	5,000,000 tonnes per year									
54	100 cubic metres per day										
Application verified	Date: 01/09/2011										
Application fee paid	Date: 08/09/2011										
Works approval has been complied with	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>										
Compliance certificate received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>										
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>										
Commercial-in-confidence claim outcome	No										
Is the proposal a major resource project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>										
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	<table border="1"> <tr> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> <td>           Referral Decision No:            Managed under Part V <input type="checkbox"/>            Assessed under Part IV <input type="checkbox"/> </td> </tr> </table>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Referral Decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>								
Yes <input type="checkbox"/> No <input 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?	<table border="1"> <tr> <td>Yes <input type="checkbox"/> No <input type="checkbox"/></td> <td>           Ministerial Statement No: 852            EPA Report No:         </td> </tr> </table>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Ministerial Statement No: 852 EPA Report No:								
Yes <input type="checkbox"/> No <input type="checkbox"/>	Ministerial Statement No: 852 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**

This licence L8596/2011/1, is for the operation of an iron ore crushing and screening plant and a waste water treatment plant (WWTP) as part of the Carina Iron Ore Project (CIOP) of Polaris Metals Pty Ltd (PML).

The crushing and screening plant has the design capacity to process 5,000,000 tonnes per year (t/yr) of ore. Ore is extracted from the site via a single open pit mine of approximately 40 hectares (ha). Extracted ore is graded into separate stock piles before being blended into the crushing and screening plant. The crushing circuit configuration comprises a crusher and screen circuit with closed circuit conveyors and stackers. Dust emissions are expected to be the main emission of concern from the crushing and screening operations.

The WWTP is to be used for the accommodation village at the CIOP. The WWTP will use a Sequence Batch Reactor (SBR) technology and has a design capacity of 100 cubic metres (m<sup>3</sup>) per day. The treated waste water is proposed to be piped to an irrigation area approximately two kilometres (km) south of the accommodation area for controlled discharge. The irrigation area will be 0.4ha in size and be covered with indigenous scrub vegetation. Approximately 15m<sup>3</sup> of treated wastewater will be taken to a turkey's nest from where it will be used for dust suppression.

This licence is the result of an amendment sought by the licensee to upgrade the details pertaining to the category 54 WWTP irrigation area and category 5 design capacity relating to licence L8596/2011/1.

No additional works were carried out at the premises to upgrade the facilities throughput or design capacity. The design capacity was recorded below its specifications in the original licence. The amendment is being carried out to rectify this error in reporting.



## 4 Decision table

All applications are assessed under the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DER's Policy Statement - Limits and targets for prescribed premises (2006) and the risk matrix attached to this decision document in section 6. Where other references have been used in making the decision they are detailed in the decision table.

OSC = Optional standard condition

NSC = Non-standard condition

DECISION TABLE				
Works approval / licence section	Condition number W = works approval L = licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
<b>General conditions</b>	L1.2 L1.3	OSC	<p><b>Operation</b></p> <p><i>Emission Significance - 2</i></p> <p><i>Socio-political context</i> - Low concern or interest.</p> <p><i>Risk assessment</i> - D – licence conditions</p> <p>Ministerial Statement 852 applies for the premises and requires additional consideration by the proponent.</p> <p>Specified conditions have been included relating to general conditions and operation for the premises.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Application supporting documentation</p>
<b>Emissions general</b>	L2.1	OSC	<p>Descriptive targets will be set through condition 2.5 of the licence and therefore an OSC regarding recording and investigation of exceedances of targets has been included.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p>



DECISION TABLE				
Works approval / licence section	Condition number W = works approval L = licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Point source emissions to air including monitoring	L2.2 L3.2	N/A	<p><b>Operation and Construction</b>  <i>Emission significance - 2</i>  <i>Socio-political context</i> - No concern or interest.  <i>Risk assessment</i> - E – other management mechanisms</p> <p>No significant point source air emissions are expected from the operation of the WWTP or the crushing plant. Given the proximity of the facilities to other sensitive receptors, air emissions are likely to be minimal. No specified conditions relating to point source emissions to air or the monitoring of these emissions are required to be added to the licence.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p>Works approval application supporting documentation</p>
Point source emissions to surface water including monitoring	L2.3 L3.3	N/A	<p><b>Operation</b>  <i>Emission significance – 2</i>  <i>Socio-political context</i> – No concern or interest  <i>Risk assessment</i> – E – No regulation, other management mechanisms</p> <p>There will be no point source emissions to water during operation of the WWTP. The nearest surface water body is an ephemeral lake system approximately 3km south south-west of the premises. No specified conditions relating to point source emissions to water or the monitoring of such emissions are required to be added to the licence.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p>Ministerial Statement No. 852.</p> <p>Application supporting documentation</p>



<b>DECISION TABLE</b>				
<b>Works approval / licence section</b>	<b>Condition number W = works approval L= licence</b>	<b>OSC or NSC</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Point source emissions to groundwater including monitoring</b>	L2.4 L3.4	N/A	<b>Operation</b> <i>Emission significance – 2</i> <i>Socio-political context – Low concern or interest</i> <i>Risk assessment – D – Other management mechanisms</i>  There will be no point source emissions to groundwater during operation of the WWTP or crushing plant. Groundwater has been identified as being approximately 40 metres below ground level.  Ministerial Statement No. 852 applies, requiring the proponent to manage and monitor aspects relating to the site.  No specified conditions relating to point source emissions to water or the monitoring of such emissions are required to be added to the licence.	General provisions of the <i>Environmental Protection Act 1986</i>  Ministerial Statement No. 852.  Application supporting documentation



DECISION TABLE				
Works approval / licence section	Condition number W = works approval L= licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
<b>Emissions to land including monitoring</b>	L2.5 L3.5	OSC	<p><b>Operation</b></p> <p><i>Emission significance – 2</i></p> <p><i>Socio-political context – Medium concern or interest</i></p> <p><i>Risk assessment – D - Other management mechanisms/ licence conditions</i></p> <p>Assessment of soils for the irrigation area found high permeability finer sandy soils in the top 0.8m, with more gravely sands below. Infiltration rate is considered to be 0.9m per day. The mean saturated soil hydraulic conductivity (Ksat) is <math>2 \times 10^{-5}</math> m/s (ranging between <math>9 \times 10^{-6}</math> and <math>9 \times 10^{-5}</math> m/s).</p> <p>No hydrogeological survey has been undertaken for the irrigation area. Given the regional depth to groundwater of the area (approximately 40m below ground level) Polaris does not consider that a hydrogeological survey is necessary as there will not be any impact from the proposed irrigation facility.</p> <p>Irrigation will be to a 0.4ha area vegetated with native scrub vegetation via a sprinkler system. Weed management at the accommodation facility is required as per Ministerial Statement No. 852, condition 10-1-3.</p> <p>Sludge produced during the operation of WWTP SBR tank is proposed to be stored in an enclosed tank prior to disposal at a licenced facility.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p>Environmental Protection (Unauthorised Discharges) Regulations 2004</p> <p>Environmental Protection (Controlled Waste) Regulations 2004</p> <p>Ministerial Statement No. 852, condition 9-1-6</p> <p>Ministerial Statement No. 852.</p> <p>Code of practice for the storage and handling of dangerous goods</p> <p>Application supporting documentation.</p>
<b>Emissions to land including monitoring</b>	L2.5 L3.5	OSC	Sodium hypochlorite (chlorine), which is used in the process as a disinfectant, will be stored on site. PML is proposing to store sodium hypochlorite on site in a plastic tank in a secondary bund.	





DECISION TABLE				
Works approval / licence section	Condition number W = works approval L= licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
<b>Fugitive emissions</b>	L2.6	NSC	<p><b>Operation</b>  <i>Emission significance</i> – 2  <i>Socio-political context</i> – Low concern or interest  <i>Risk assessment</i> – D – Other management mechanisms/ licence conditions</p> <p>PML is proposing to use water from the turkey's nest for dust suppression. Inputs to turkey's nest include nearly 15m<sup>3</sup> of treated wastewater and nearly 75m<sup>3</sup> of reject water from the reverse osmosis (RO) plant. Wastewater from RO plant is expected to have high total suspended solids. Water quality analysis of water from turkey's nest is not currently available. PML will need to ensure that the quality of water used does not exceed the Australian guidelines.</p> <p>Management and monitoring of saline water used for dust suppression is required as per Ministerial Statement No. 852, condition 9-1-6</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p>Ministerial Statement No. 852.</p> <p>Environmental Protection (Unauthorised Discharges) Regulations 2004</p>



DECISION TABLE				
Works approval / licence section	Condition number W = works approval L= licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Odour	L2.7	OSC	<p><b>Operation</b>  <i>Emission significance</i> – 2  <i>Socio-political context</i> – Low concern or interest  <i>Risk assessment</i> – D – Other management mechanisms/ licence conditions</p> <p>The irrigation area is found north, north-east of the office block within a fenced off area not accessible to the general public. The wastewater is chlorinated prior to irrigation.</p> <p>Generation of anoxic conditions during sewage treatment and areas where untreated sludge is disposed are primary sources of odour concern. The SBR process cycles through an anoxic zone. This may pose potential odour emissions. The SBR tank is an open roofed tank and settling and removal of sludge occurs from this tank. It is hence necessary to ensure that sludge removal process is efficiently maintained and that there is no build up of sludge in the SBR tank.</p> <p>PML is proposing to store the sludge in an enclosed tank on site before disposing it to a licenced facility.</p>	General provisions of the <i>Environmental Protection Act 1986</i>
Noise	L3.8	N/A	<p><b>Operation</b>  <i>Emission significance</i> – 2  <i>Socio-political context</i> – No concern or interest  <i>Risk assessment</i> – E – Other management mechanisms/licence conditions</p> <p>No specified conditions relating to noise emissions or the monitoring of such emissions are required to be added to the licence.</p>	General provisions of the <i>Environmental Protection Act 1986</i>



<b>DECISION TABLE</b>				
<b>Works approval / licence section</b>	<b>Condition number W = works approval L= licence</b>	<b>OSC or NSC</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Monitoring general</b>	L3	OSC	<p><b>Operation</b>  <i>Emission significance</i> – 2  <i>Socio-political context</i> – Low concern or interest  <i>Risk assessment</i> – D – Other management mechanisms/ Licence conditions</p> <p>Optional Standard conditions have been specified for the premises relating to general monitoring requirements.</p>	General provisions of the <i>Environmental Protection Act 1986</i>
<b>Monitoring of inputs and outputs</b>	L3.6	N/A	No specified conditions relations to monitoring of inputs and outputs are required to be added to the licence.	General provisions of the <i>Environmental Protection Act 1986</i>
<b>Process monitoring</b>	L3.7	N/A	No specified conditions relations to process monitoring are required to be added to the licence.	General provisions of the <i>Environmental Protection Act 1986</i>
<b>Ambient environmental quality monitoring</b>	L3	N/A	No specified conditions relating to ambient quality monitoring are required to be added to the works approval or licence.	General provisions of the <i>Environmental Protection Act 1986</i>
<b>Meteorological monitoring</b>	L3	N/A	No specified conditions relating to meteorological monitoring are required to be added to the works approval or licence.	N/A



<b>DECISION TABLE</b>				
<b>Works approval / licence section</b>	<b>Condition number W = works approval L = licence</b>	<b>OSC or NSC</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
<b>Improvements</b>	L4.1	NSC	<p><b>Operation</b>  <i>Emission significance</i> – 2  <i>Socio-political context</i> – medium concern or interest  <i>Risk assessment</i> – D - Other management mechanisms/licence conditions</p> <p>Specified conditions relating to improvements have been outlined in condition 4, Improvement program, relating to the irrigation area and its management and monitoring.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p> <p>Application supporting documentation</p>
<b>Information</b>	L5	OSC	<p>Specified conditions relating to reporting have been outlined in condition 5, Information, relating to the premises licence.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i></p>

## 5 Advertisement and consultation table

Date	Event	Comments received/notes	How comments were taken into consideration
21/11/2011	Application advertised in <i>The West Australian</i> (or other relevant newspaper)	No comments received	
24/10/2013	Proponent sent a copy of draft instrument	Comments received regarding miner issues	Comments were taken into consideration when finalising licence.



## 6 Emissions and discharges risk assessment matrix

Note: These matrix are taken from the DER Officer's Guide to Emissions and Discharges Risk Assessment (2006).

**Table 3: Measures of significance of emissions**

Emissions as a percentage of the relevant emission or ambient standard		Worst case operating conditions (95 <sup>th</sup> percentile)			
		>100%	50 – 100%	20 – 50%	<20%*
Normal operating conditions (50 <sup>th</sup> percentile)	>100%	5	N/A	N/A	N/A
	50 – 100%	4	3	N/A	N/A
	20 – 50%	4	3	2	N/A
	<20%*	3	3	2	1

\*For reliable technology, this figure could increase to 30%

**Table 4: Socio-political context of each regulated emission**

		Relative proximity of the interested party with regards to the emission				
		Immediately adjacent	Adjacent	Nearby	Distant	Isolated
Level of community interest or concern*	5	High	High	Medium High	Medium	Low
	4	High	High	Medium High	Medium	Low
	3	Medium High	Medium High	Medium	Low	No
	2	Low	Low	Low	Low	No
	1	No	No	No	No	No

Note: These examples are not exclusive and professional judgement is needed to evaluate each specific case

\*This is determined by DER using the *Officer's Guide to Emissions and Discharges Risk Assessment* (2006).

**Table 5: Emissions risk reduction matrix**

		Significance of emissions				
		5	4	3	2	1
Socio-political context	High	A	A	B	C	D
	Medium high	A	A	B	C	D
	Medium	A	B	B	D	E
	Low	A	B	C	D	E
	No	B	C	D	E	E

### PRIORITY MATRIX ACTION DESCRIPTORS

A = Do not allow (fix)

B = licence condition (setting limits + EMPs - short timeframes)(setting targets optional)

C = licence condition (setting targets + EMPs - longer timeframes)

D= EIPs, other management mechanisms/licence conditions (monitoring/reporting)/other regulatory tools

E = No regulation, other management mechanisms