



Government of Western Australia  
Department of Environment Regulation

Your ref: L6194/1989/14  
Our ref: 2010/010962  
Enquiries: Daniel Hartnup  
Phone: 9725 4300  
Fax: 9725 4351  
Email: [daniel.hartnup@der.wa.gov.au](mailto:daniel.hartnup@der.wa.gov.au)

The Manager  
Iluka Resources Limited  
P.O. Box 96  
CAPEL WA 6271

ATTN: Mr Campbell Hawks

Dear Mr Hawks

**ENVIRONMENTAL PROTECTION ACT 1986: LICENCE GRANTED**

**Premises**

Capel Dry Plant  
Jenkin Rd, Capel WA 6271  
**Licence Number:**L6194/1989/14

A licence under the *Environmental Protection Act 1986* (the Act) has been granted for the above premises. The Department of Environment Regulation will advertise the issuing of this licence in the public notices section of *TheWest Australian* newspaper.

The licence includes attached conditions. Under section 58(1) of the Act, it is an offence to contravene a condition of a licence. This offence carries a penalty of up to \$125,000 and a daily penalty of up to \$25,000.

In accordance with section 102(1)(c) of the Act, you have 21 days to appeal the conditions of the licence. Under section 102(3)(a) of the Act, any other person may also appeal the conditions of the licence. To lodge an appeal contact the Office of the Appeals Convenor on 6467 5190 or by email at [admin@appealsconvenor.wa.gov.au](mailto:admin@appealsconvenor.wa.gov.au).

Where a licence is issued for more than one year it requires payment of an annual fee and will cease to have effect if the fee is unpaid. It is the occupier's responsibility to lodge a fee application and pay the annual fee in sufficient time to avoid incurring a late payment fee and for processing to be completed before the licence anniversary date.

If you have any queries regarding the above information, please contact Daniel Hartnup on 9725 4300.

Yours sincerely

Mark Whiteley  
Officer delegated under section 20  
of the *Environmental Protection Act 1986*

19 December 2013





# Licence

## *Environmental Protection Act 1986, Part V*

**Licensee:** Iluka Resources Limited

**Licence:** L6194/1989/14

**Registered office:** Level 23  
140 St Georges Terrace  
PERTH WA 6000

**ACN:** 008 675 018

**Premises address:** Capel Dry Plant  
Jenkin Rd  
CAPEL WA 6271  
Being Lot 2 on Diagram 90768, Lot 182 on Plan 81573, Lots 56, 61 & 64 on Plan 22236 and Part of Railway Reserve, as depicted in Schedule 1

**Issue date:** Thursday, 19 December 2013

**Commencement date:** Wednesday, 1 January 2014


**Expiry date:** Monday, 31 December 2019

**Prescribed premises category**  
Schedule 1 of the Environmental Protection Regulations 1987

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
8	Mineral sands mining or processing: premises on which mineral sands ore is mined, screened, separated or otherwise processed.	5000 tonnes or more per year	247 000 tonnes per year

### Conditions

Subject to this Licence and the conditions set out in the attached pages.

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



## Contents

Licence	1
Contents	2
Introduction	2
Licence conditions	5
1 General	5
2 Emissions	7
3 Monitoring	8
4 Improvements	9
5 Information	9
Schedule 1: Maps	11
Schedule 2: Reporting & notification forms	12

## Introduction

This Introduction is not part of the Licence conditions.

### DER's industry licensing role

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 protect and conserve the state's environment on behalf of the people of Western Australia.

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 monitor and audit compliance with works approvals and licence conditions, take enforcement action as appropriate and develop and implement licensing and industry regulation policy.

### Licence requirements

This licence is issued under Part V of the Act. Conditions contained within 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. Operating without a licence is an offence under the Act.

**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**

The Capel Dry Plant is a former mineral sands separation plant that was idled in 2009. Only part of the plant remains able to operate (dry separation circuit), and may be restarted in the future depending on market demand.

Operations on the premises are currently restricted to:

- Bagging of stockpiled product;
- Research and laboratory works;
- Maintenance of exploration equipment; and
- Administration.

This licence is the successor to licence L6194/1989/13, which has not been amended since the plant was idled. As such, this licence has been updated to remove conditions relating to the former wet separation circuits. The licence has also been converted to a new format REFIRE licence, and is likely to require amending when/if operations resume in the future.

The licences and works approvals issued for the Premises since 1991, prior to the issue of this licence are:

<b>Instrument log</b>		
<b>Instrument</b>	<b>Issued</b>	<b>Description</b>
L3926	27/11/1992	First licence – issued by the EPA to Westralian Sands Ltd
L3926	04/08/1993	Amendment to increase throughput
L4842	06/12/1993	New licence
L4842	22/03/1994	Amendment – issued by DEP
L5329	31/10/1994	New licence
L6194	11/10/1995	New licence
L6194/1	05/08/1997	New licence
L6194/2	10/11/1997	New licence
L6194/2	29/12/1997	Amendment
L6194/3	13/11/1998	New licence
L6194/4	12/01/2000	New licence
L6194/4	14/02/2000	Amendment
L6194/4	15/05/2000	Amendment
L6194/5	27/12/2000	New licence
L6194/6	16/01/2002	New licence
L6194/7	30/12/2002	New licence
L6194/8	22/12/2003	New licence – issued by DoE
W3912/1	02/04/2004	Works approval for upgrade to acid leach circuit
L6194/9	27/10/2004	New licence
L6194/10	24/10/2005	New licence
L6194/11	21/12/2006	New licence – issued by DEC



L6194/1989/12		New licence
L6194/1989/13	16/12/2010	New licence, issued for 3 years
L6194/1989/14	19/12/2013	New licence, issued in REFIRE format. Amended to reflect the site in care and maintenance. Issued by DER

**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 *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

**'the Act'** means the *Environmental Protection Act 1986*;

**'annual period'** means the inclusive period from 1 January to 31 December in that year;

**'AS 4323.1'** means the Australian Standard AS4323.1 *Stationary Source Emissions Method 1: Selection of sampling positions*;

**'averaging period'** means the time over which a limit or target is measured or a monitoring result is obtained;

**'CEMS'** means continuous emissions monitoring system;

**'CEMS Code'** means the current version of the Continuous Emission Monitoring System (CEMS) Code for Stationary Source Air Emissions, Department of Environment & Conservation, Government of Western Australia;

**'code of practice for the storage and handling of dangerous goods'** means the Storage and handling of dangerous goods - code of practice, Department of Mines and Petroleum, Government of Western Australia;

**'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, South West Region  
Department of Environment Regulation  
PO Box 1693  
BUNBURY WA 6231  
Telephone: (08) 9725 4300  
Facsimile: (08) 9725 4351  
Email: [SWIRAdmin@dec.wa.gov.au](mailto:SWIRAdmin@dec.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;



**'Licence'** means this Licence numbered L6194/1989/14 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 in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

**"normal operating conditions"** means any operation of a particular process (including abatement equipment) excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring;

**'Premises'** means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

**"quarterly period"** means the 4 inclusive periods from 1 January to 31 March; 1 April to 30 June, 1 July to 30 September, and 1 October to 31 December in the same year,

**'Schedule 1'** means Schedule 1 of this Licence unless otherwise stated;

**'Schedule 2'** means Schedule 2 of this Licence unless otherwise stated;

**'stack test'** means a discrete set of samples taken over a representative period at normal operating conditions;

**'STP dry'** means standard temperature and pressure (0°Celsius and 101.325 kilopascals respectively), dry;

**'USEPA'** means United States (of America) Environmental Protection Agency;

**"USEPA Method 5"** means the USEPA Method 5 *Determination of Particulate Matter Emissions from Stationary Sources*; and

**"USEPA Method 17"** means the USEPA Method 17 *Determination of Particulate Matter Emissions from Stationary Sources*.

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 operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.





- 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 immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
- 1.2.5 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>

Note1: 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 submit to the Director for approval a proposal for the recommencement of any category 8 mineral separation activity as described by Schedule 1 of the Environmental Protection Regulations 1987 on the Premises within 28 calendar days of the proposed commencement date.

## 2 Emissions

### 2.1 General

- 2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit, and/or target in this section.

### 2.2 Point source emissions to air

- 2.2.1 The Licensee shall ensure that where waste is emitted to air from the emission points in Table 2.2.1 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this licence.

Table 2.2.1: Emission points to air			
Emission point reference and location on Map of emission points	Emission Point and source	Emission point height (m)	Source, including any abatement
A1	Ilmenite dryer baghouse stack	15	Ilmenite dryer via baghouse
A2	Plant dedusting baghouse stack	12	Dust extraction system via baghouse

- 2.2.2 The Licensee shall not cause or allow point source emissions to air greater than the limits listed in Table 2.2.2.

Table 2.2.2: Point source emission limits to air			
Emission point Reference	Parameter	Limit (including units) <sup>1</sup>	Averaging period
A1 – A2	Particulates	250 mg/m <sup>3</sup>	Stack test (60 minute average)

Note 1: All units are referenced to STP dry



**2.3-2.4 Point source emissions to surface water and groundwater**

There are no specified conditions relating to point source emissions to surface water or groundwater in this section.

**2.5 Emissions to land**

There are no specified conditions relating to emissions to land in this section.

**2.6-2.8 Fugitive emissions, odour and noise**

There are no specified conditions relating to fugitive emissions, odour or noise in this section.

**3 Monitoring**

**3.1 General monitoring**

- 3.1.1 The Licensee shall ensure that quarterly monitoring is undertaken at least 45 days apart.
- 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 ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.
- 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 point source emissions to air**

- 3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

<b>Table 3.2.1: Monitoring of point source emissions to air</b>				
<b>Emission point reference</b>	<b>Parameter</b>	<b>Units<sup>1</sup></b>	<b>Frequency<sup>2</sup></b>	<b>Method</b>
A1 – A2	Particulates	mg/m <sup>3</sup> g/s	Quarterly	USEPA Method 5 or 17

Note 1: All units are referenced to STP dry

Note 2: Monitoring shall be undertaken to reflect normal operating conditions and any limits or conditions on inputs or production.

- 3.2.2 The Licensee shall ensure that sampling required under Condition 3.2.1 of the Licence is undertaken at sampling locations in accordance with the AS 4323.1 or relevant part of the CEMS Code.
- 3.2.3 The Licensee shall ensure that all non-continuous sampling and analysis undertaken pursuant to condition 3.2.1 is undertaken by a holder of NATA accreditation for the relevant methods of sampling and analysis.



### 3.3-3.4 Monitoring of point source emissions to surface water and groundwater

There are no specified conditions relating to monitoring of point source emissions to surface water or groundwater in this section.

### 3.5 Monitoring of emissions to land

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

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

There are no specified conditions relating to monitoring of inputs and outputs and process monitoring in this section.

### 3.8-3.9 Ambient environmental quality monitoring and meteorological monitoring

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

## 4 Improvements

There are no specified improvement conditions in this section.

## 5 Information

### 5.1 Records

5.1.1 All information and records required by the Licence shall:

- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 5.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
  - (i) off-site environmental effects; or
  - (ii) matters which affect the condition of the land or waters.

5.1.2 The Licensee shall ensure that:

- (a) 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
- (b) 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 annual period.

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 an Annual Environmental Report by 1 February in each year. 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>
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
-	Volumes of SPC Tails processed at the Premises, SPC Ilmenite transported to North Capel and SPC Final Tails disposed of at Yoganup Extended	
Table 3.2.1	Particulates	AR1
5.1.3	Compliance	Annual Audit Compliance Report (AACR)
5.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

## 5.3 Notification

5.3.1 The Licensee shall ensure that the parameters listed in Table 5.3.1 are notified to the Director in accordance with the notification requirements of the table.

<b>Table 5.3.1: Notification requirements</b>			
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Notification requirement<sup>1</sup></b>	<b>Format or form<sup>2</sup></b>
2.1.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day.  Part B: As soon as practicable	N1
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution		
3.1.4	Calibration report	As soon as practicable.	None specified

Note 1: Notification requirements in the licence shall not negate the requirement to comply with s72 of the Act

Note 2: Forms are in Schedule 2

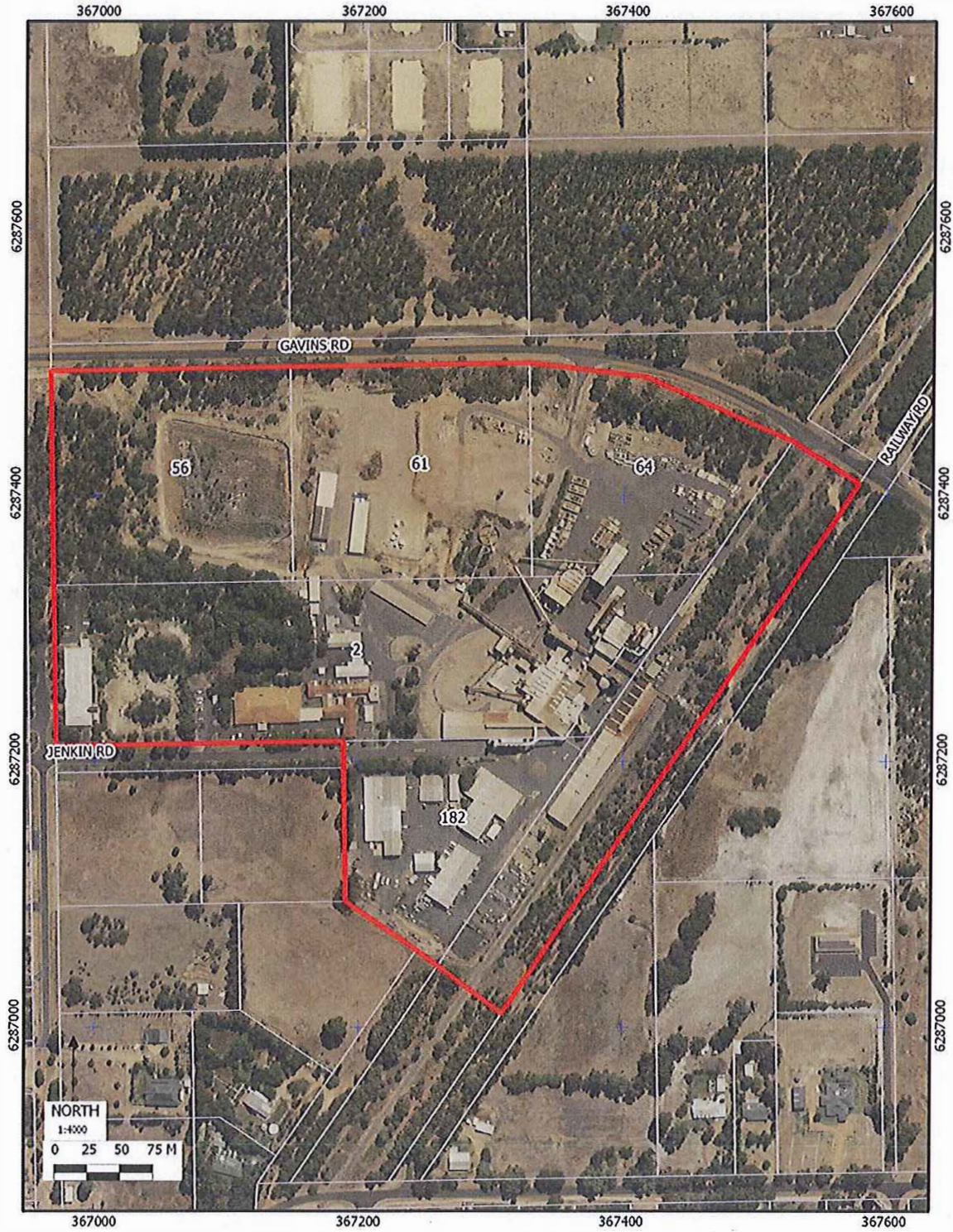




# Schedule 1: Maps

## Premises map

The Premises is shown in the map below. The red line depicts the Premises boundary.





## 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.

### SECTION A LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

### STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the licence complied with within the reporting period? (please tick the appropriate box)
- Yes  Please proceed to Section C
- No  Please proceed to Section B

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

Initial:





**SECTION B**  
**DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.**

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicable:	
c) Was this non compliance reported to DER?:	
<input type="checkbox"/> Yes <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 the 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:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



## SECTION C

### SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out 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 Annual Audit Compliance Report 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 of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<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 Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <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 Corporations Act 2001; 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 Chief Executive Officer of the Department of Environment Regulation.
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 Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer 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 annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

POSITION: \_\_\_\_\_

POSITION: \_\_\_\_\_

DATE: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

DATE: \_\_\_\_ / \_\_\_\_ / \_\_\_\_





Licence: L6194/1989/14  
Form: AR1  
Name: Monitoring of point source emissions to air

Licensee: Iluka Resources Ltd  
Period:

Form AR1: Monitoring of point source emissions to air							
Emission point	Parameter	Limit	Result <sup>1</sup>	Result <sup>1</sup>	Averaging period	Method	Sample date & times
A1 – A2	Particulates	250 mg/m <sup>3</sup>	mg/m <sup>3</sup>	g/s		USEPA Method 5 or 17	

Note 1: All units are referenced to STP dry

Signed on behalf of Iluka Resources Ltd: ..... Date: .....



Licence: L6194/1989/14  
Form: N1

Licensee: Iluka Resources 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	
Name of operator	
Location of Premises	
Time and date of the detection	

<b>Notification requirements for the breach of a limit</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>	
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

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 previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Iluka Resources Ltd	
Date	







# Decision Document

## *Environmental Protection Act 1986, Part V*

---

**Licensee:** Iluka Resources Limited

**Licence:** L6194/1989/14

---

**Registered office:** Level 23  
140 St Georges Terrace  
PerthWA 6000

**ACN:** 008 675 018

**Premises address:** Capel Dry Plant  
Jenkin Rd  
CapelWA 6271  
Being Lot 2 on Diagram 90768, Lot 182 on Plan 81573, Lots 56, 61 & 64 on Plan 22236 and Part of Railway Reserve

**Issue date:** Thursday, 19 December 2013

**Commencement date:** Wednesday, 1 January 2014

**Expiry date:** Monday, 31 December 2019

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

Decision Document prepared by: Daniel Hartnup.....  
Regional Environmental Officer

Decision Document authorised by: Neville Welsh.....  
Regional Leader



## Contents

Decision Document	1
Contents	2
1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal	4
4 Decision table	5
5 Advertisement and consultation table	9
6 Emissions and discharges risk assessment framework	10

## 1 Purpose of this Document

This 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 (SC)

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: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 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 (OSC)

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 (NSC)

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 Administrativesummary

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	<b>Category number(s)</b>	<b>Assessed design capacity</b>
	8: Mineral sands mining or processing	247 000 tonnes per annual period
Application verified	Date: 09/10/2013	
Application fee paid	Date: 18/10/2013	
Works Approval has been complied with Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidenceclaim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claimoutcome		
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> ?	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 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 <sub>2</sub> requirements of Kwinana EPP.		



### 3 Executive summary of proposal

Iluka Resources Limited (Iluka) operated the Capel Dry Plant (CDP) under Licence L6194/1989/13. The plant was established in the 1950s by Westralian Sands Limited and was the company's primary mineral sands separation plant, separating titanium minerals and zircon from heavy mineral concentrate. The plant was downgraded in 1997 after the North Capel Separation Mill (NCSM) came online, to secondary separation of the non-magnetic and reject magnetic fractions from NCSM. In 2009 the plant was idled; the non-magnetic circuits have since been dismantled, however the magnetic circuit remains in care and maintenance and depending on market demand, may be restarted in the future. In view of this, Iluka has chosen to retain an active licence over the Premises.

Since 2009, activities on the Premises have been restricted to bagging of stockpiled product, research and laboratory works, maintenance of exploration equipment and general administration.

If restarted, the magnetic circuit (known as the 'ilmenite circuit') will operate as it was previous to being idled. Ore, known as 'SPC tails' ('SPC' refers to the reject magnetic stream from Separation Plant C in the NCSM, currently stockpiled at North Capel), will be heated in a kiln, prior to electrostatic and magnetic separation to produce a secondary grade of ilmenite (known as 'SPC ilmenite') suitable for feed at approximately 10-20% blend into the SR2 kiln. The remaining waste (known as 'SPC final tails') will be disposed of off-site at Iluka's radioactive waste dump at the former Yoganup Extended mine site.

Approximately 247 kilotonnes (kt) of SPC tailings is currently stockpiled at North Capel. Of this, up to 74 kt will be separated as SPC ilmenite and the remainder as SPC final tails that will require off-site disposal (includes approx. 5 kt of dust from the baghouses). The design capacity of the magnetic circuit is 20 t/hr (162 100 t/yr); the nominal rate is 17 t/hr (137 750 t/yr).

The only emission of concern will relate to particulates from the drier exhaust and dust extraction system. Both have pollution abatement in the form of baghouses that were functional during the previous operations. Iluka acknowledges that both baghouses will require validation testing prior to any restart, to ensure the equipment is fit for purpose and capable of operating to manufacturer specifications.

As part of the licence review, the licence has been converted into the new standardised REFIRE format. During the conversion process, the authorised activities on the Premises has been reassessed, including the acceptability and impacts of emissions and discharges and existing emission control levels. The updated licence now reflects the care and maintenance status of the site, and contains conditions specific to the restart of operations.





## 4 Decision table

All applications are assessed under the *Environmental Protection Act 1986*, the Environmental Protection Regulations 1987, the risk matrix attached to this decision document in Section 6 and DER's Industry Regulation Emissions and Discharges Assessment Framework. Where other references have been used in making the decision they are detailed in the decision table.

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
General conditions	L1.3.1	NSC	<b>Emission significance – 3</b> <b>Socio-political context – Medium</b> <b>Risk Assessment – B – Licence conditions, limits set</b> In considering the care and maintenance status of the plant, condition L1.3.1 has been added to require the Licensee to notify the Director at least 28 days prior to the recommencement of operations. This will enable DER to assess the nature of recommencement activities on the Premises and the potential for a works approval.	Application supporting documentation
Emissions general	L2.1.1	OSC	Numerical limits will be set through condition 2.2.2 of the licence and therefore OSC regarding recording and investigation of exceedances of limits or targets has been included.	N/A
Point source emissions to air including monitoring	L2.2.1 – L2.2.2 and L3.2.1 – L3.2.3	OSC	<b>Emission significance – 3</b> <b>Socio-political context – Medium</b> <b>Risk Assessment – B – Licence conditions, limits set</b> The ilmenite circuit is the only circuit that is able to operate, which involves the drying and magnetic/high tension separation of ore to produce ilmenite. Emissions to air from the ilmenite circuit include particulates from the dryer and the dust extraction system. An annual stack test for particulates and an emission limit of 250 mg/m <sup>3</sup> has been retained from the previous licence. The zircon, Hy-Ti and monazite circuits have been decommissioned; therefore the stacks associated with the zircon and monazite dryers and the Hy-Ti inplant dedusting stack have been removed from the licence as authorised point sources.	Environmental Protection (Unauthorised Discharges) Regulations 2004  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
Point source emissions to surface water including monitoring	L2.3 and L3.3	N/A	<p><b>Emission significance – 1</b>  <b>Socio-political context – No concern or interest</b>  <b>Risk Assessment – E – No regulation, other management mechanisms</b></p> <p>The ilmenite circuit is a dry separation process; therefore will be no point source emissions to surface water should this circuit be restarted.</p> <p>The zircon, Hy-Ti and monazite circuits included wet processes that generated an acidic effluent stream. This effluent stream was neutralised on-site and discharged to a stormwater drain on Jenkin Rd under previous licence conditions. As the zircon, Hy-Ti and monazite circuits have been decommissioned; the Jenkin Rd point source been removed from the licence.</p> <p>No specified conditions relating to point source emissions to surface water or the monitoring of these emissions are required to be added to the licence.</p>	N/A
Point source emissions to groundwater including monitoring	L2.4 and L3.4	N/A	<p><b>Emission significance – 1</b>  <b>Socio-political context – No concern or interest</b>  <b>Risk Assessment – E – No regulation, other management mechanisms</b></p> <p>There will be no point source emissions to groundwater should the ilmenite circuit be restarted. No specified conditions relating to point source emissions to groundwater or the monitoring of these emissions are required to be added to the licence.</p> <p>The previous licence contained groundwater monitoring requirements, to monitor for impacts to groundwater quality from on-site operations. As there are no point source emissions to groundwater from the process, ongoing groundwater monitoring is captured under the <i>Contaminated Sites Act 2006</i>.</p>	<i>Contaminated Sites Act 2006</i>



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
Emissions to land including monitoring	L2.5 and L3.5	N/A	<p><b>Emission significance – 1</b>  <b>Socio-political context – No concern or interest</b>  <b>Risk Assessment – E – No regulation, other management mechanisms</b></p> <p>There will be no emissions to land should the ilmenite circuit be restarted. No specified conditions relating to point source emissions to groundwater or the monitoring of these emissions are required to be added to the licence.</p>	N/A
Fugitive emissions	L2.6	N/A	<p><b>Emission significance – 1</b>  <b>Socio-political context – No concern or interest</b>  <b>Risk Assessment – E – No regulation, other management mechanisms</b></p> <p>Fugitive dust emissions are not expected to be significant if the ilmenite circuit is restarted. No specified conditions relating to fugitive dust are required to be added to the licence.</p> <p>Under the previous licence, ambient particulate concentrations were monitored due to materials handling operations, product stockpiles, open areas and transport activities. As these activities no longer occur on the Premises, the previous conditions relating to active fugitive dust management have been removed.</p> <p>Light emissions are not expected to be significant if the dry separation process is restarted. After hours operations are likely in the event of a restart; however light was not a significant issue during previous operations prior to idle, and is not considered significant enough to warrant specific conditions on the licence.</p>	N/A
Odour	L2.7	N/A	<p><b>Emission significance – 1</b>  <b>Socio-political context – No concern or interest</b>  <b>Risk Assessment – E – No regulation, other management mechanisms</b></p> <p>Odour emissions are not expected if the ilmenite circuit is restarted. No specified conditions relating to odour are required to be added to the licence.</p>	N/A



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
Noise	L2.8	N/A	<p><b>Emission significance – 1</b>  <b>Socio-political context – No concern or interest</b>  <b>Risk Assessment – E – No regulation, other management mechanisms</b></p> <p>When the CDP was operating, noise from the zircon baghouse was identified as a significant noise source, and of ongoing community complaints. As this part of the plant has been decommissioned, noise is not expected to be significant if the ilmenite circuit is restarted.</p> <p>Noise emissions from the process can be adequately managed under the Noise Regulations and as such, no specified conditions relating to noise are required to be added to the licence.</p>	Environmental Protection (Noise) Regulations 1997 (Noise Regulations)
Monitoring general	L3.1.1 – L3.1.3	OSC	Descriptive monitoring of discharges to air have been set through condition L3.2.1 and therefore OSC regarding sampling frequency, monitoring equipment and calibration has been included.	
Monitoring of inputs and outputs	L3.6	N/A	No monitoring of inputs/outputs required.	
Process monitoring	L3.7	N/A	No process monitoring required.	
Ambient quality monitoring	L3.8	N/A	No ambient quality monitoring required.	
Meteorological monitoring	L3.9	N/A	No meteorological monitoring required.	
Improvements	L4.1	N/A	No improvements required.	
Information	L5.1	N/A	Standard reporting conditions on the existing licence for licence limit exceedances, annual environmental reports and annual audit compliance reports.	



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
28/10/2013	Application advertised in West Australian	Nil	N/A
09/12/2013	Proponent sent a copy of draft instrument	Nil	N/A





## 6 Emissions and discharges risk assessment framework

Note: These matrix are taken from the DEC 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