

Licence

Environmental Protection Act 1986, Part V

Licensee: IB Operations Pty Ltd

Licence: L8825/2014/1

Registered office: 87 Adelaide Terrace

EAST PERTH WA 6004

ACN: 165 513 557

Premises address: North Star Wastewater Treatment Plant

Being part of Mining lease M45/1226

MARBLE BAR WA 6760 As depicted in Schedule 1

Issue date: Thursday, 4 September 2014

Commencement date: Monday, 8 September 2014

Expiry date: Saturday, 7 September 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
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	160 cubic metres per day

Amendment date: 17 September 2015

Conditions

This licence is subject to the conditions set out in the attached pages.

Steve Checker
MANAGER LICENSING (WASTE INDUSTRIES)
Officer delegated under section 20
of the Environmental Protection Act 1986

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147 Page 1 of 18



Contents

Licence		1
Contents		2
Introduction		2
Licence conditions		5
1 General		5
2 Emissions		8
3 Monitoring		9
4 Information	10	
Schedule 1: Maps		12
Schedule 2: Reporting & notification f	orms	13

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 advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates 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 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.

Amendment date: 17 September 2015

Other Guidelines which you should be aware of include:

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147 Page 2 of 18



• Western Australian Guidelines for Biosolids Management, Department of Environment and Conservation, December 2012 (as amended from time to time).

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

IB Operations Pty Ltd (IBO) is a joint venture between FMG Magnetite Pty Ltd and Formosa Steel IB Pty Ltd. IBO are constructing the North Star Hematite Project (the Project), located approximately 110 km south of Port Hedland. The Project involves the mining of waste and ore to produce run of mine (ROM) feed. Processing of the ROM feed will produce hematite which will be trucked to Port Hedland for export.

To support the construction of the Project, a camp has been established to accommodate the construction workforce of up to 440 persons. A wastewater treatment plant (WWTP) with the capacity to treat up to 160 m³/day has been constructed to treat wastewater produced by the kitchen, laundry and bathroom facilities associated with the camp.

The WWTP comprises two membrane bioreactor (MBR) treatment trains each designed to treat 80 m³/day of wastewater. Raw wastewater is collected and transferred to the WWTP via a sewer system and a set of sewer boxes and transfer tanks. Raw wastewater collected from the kitchen is passed through a grease trap prior to being transferred to the WWTP.

The WWTP consists of the following:

- 5 x balance tanks:
- 2 x bio selector tanks;
- 2 x anoxic tanks;
- 2 x aeration tanks;
- 4 x MBR systems;
- 2 x sludge stabilisation tanks; and
- 4 x final holding tanks.

The balance tanks provide storage of raw wastewater and solids settle in the conical shaped bases of the balance tanks. The wastewater is then pumped to the anoxic tanks in which bacteria consume nutrients and reduce biochemical oxygen demand (BOD) in the wastewater. The wastewater is then piped to the aeration tanks where phosphorus removal, ammonium oxidation and carbonaceous removal occurs. The tanks are equipped with an aeration system to provide biological process with the required oxygen to keep the bio media in suspension.

Each treatment train includes two MBR systems, which consist of microclean filters that remove all particles and bacteria. Effluent is then transferred into the final holding tanks, which have two days storage capacity. Surplus sludge from the aeration tanks is manually pumped out of the aeration tanks to the sludge stabilisation tanks, where it is periodically removed from site by a licenced contractor for disposal to a licensed facility.

The WWTP is designed to treat wastewater to meet the low exposure risk level (ERL) detailed in the Department of Health's "Guidelines for the non-potable uses of recycled water in Western Australia", 2011.

The treated effluent is discharged to a designated irrigation area, which is fenced and appropriately signed and consists of native vegetation. The irrigation field is 4 ha, and complies with the nutrient loading rates contained within the Department of Water's Water Quality Protection Note 22 "Irrigation with nutrient-rich wastewater".

Amendment date: 17 September 2015

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147 Page 3 of 18



This Licence is for the operation of a new facility established under works approval W5482/2013/1.

IBO submitted a Form P4 licence amendment on 13 August 2015 requesting an amendment to the Waste acceptance wording within Table 1.3.1. IBO are proposing to direct sewage waste from the site office and workshop ablutions to the WWTP. This waste was previously taken offsite for lawful disposal. This slight increase in sewage volume will not alter the production of design capacity of the WWTP.

The licences and works approvals issued for the Premises since 31 October 2013 are:

Instrument log				
Instrument	Issued	Description		
W5482/2013/1	31/10/2013	New Works Approval		
W5482/2013/1	08/05/2014	Works Approval amendment to increase capacity of the WWTP		
L8825/2014/1	04/09/2014	New Licence		
L8825/2014/1	17/09/2015	Licence amendment for sewage acceptance		

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

Environmental Protection Act 1986 Licence: L8825/2014/1 Amendment date: 17 September 2015 File Number: DER2014/001147 IRLB_TI0701 v2.9

Page 4 of 18



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:

'Act' means the Environmental Protection Act 1986;

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

'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;

'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;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means:

Chief Executive Officer
Department Administering Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850

Telephone: (08) 9333 7510 Facsimile: (08) 9333 7550 Email: info@der.wa.gov.au;

'controlled waste' has the definition in Environmental Protection (Controlled Waste) Regulations 2004.

'Licence' means this Licence numbered L8825/2014/1 and issued under the Act;

'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;

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

'process equipment' means any wastewater or sludge containment infrastructure or wastewater treatment vessel:

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

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147 Page 5 of 18 Amendment date: 17 September 2015 IRLB_TI0701 v2.9



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

'spot sample' means a discrete sample representative at the time and place at which the sample is taken; and

'wastewater treatment vessels' means any vessel or tank containment infrastructure associated with the treatment of wastewater.

- 1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.
- 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 in force from time to time, and shall include any amendments or replacements to that guidelines or code of practice made during the term of this Licence.
- 1.1.5 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 General conditions

- 1.2.1 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.
- 1.2.2 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
- 1.2.3 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.

Note1: The *Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

Environmental Protection Act 1986
Licence: L8825/2014/1 Amendment date: 17 September 2015
File Number: DER2014/001147



1.3 Premises operation

- 1.3.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit in this section.
- 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 1.3.1; and
 - (b) the quantity accepted is below any limit listed in Table 1.3.1; and
 - (c) it meets any specification listed in Table 1.3.1

Table 1.3.1: Waste acceptance			
Waste	Quantity Limit	Specification ¹	
Sewage	160 m ³ /day	Accepted through sewer inflow(s) only	

Note 1: Additional requirements for the acceptance of controlled waste are set out in the *Environmental Protection (Controlled Waste)* Regulations 2004.

1.3.3 The Licensee shall ensure that the wastes accepted onto the Premises are only subjected to the processes set out in Table 1.3.2 and in accordance with any process requirements described in that table.

Table 1.3.2: Waste processing				
Waste type	Process	Process requirements		
Sewage	Physical, biological and chemical treatment	Treatment of sewage waste shall be at or below the treatment capacity of 160m ³ /day		

- 1.3.4 The Licensee shall manage the irrigation of treated wastewater such that:
 - (a) no irrigation generated run-off, spray drift or discharge occurs beyond the boundary of the defined irrigation area);
 - (b) treated wastewater is evenly distributed over the irrigation area;
 - (c) no soil erosion occurs;
 - (d) irrigation does not occur on land that is waterlogged; and
 - (e) vegetation cover is maintained over the irrigation area.
- 1.3.5 The Licensee shall manage the wastewater treatment vessels such that:
 - (a) overtopping of the vessels does not occur;
 - (b) stormwater runoff is prevented from entering the vessels;
 - (c) there is no discernible seepage loss from the vessels; and
 - (d) vegetation and floating debris (emergent or otherwise) is prevented from growing or accumulating in the vessels.
- 1.3.6 The Licensee shall:
 - (a) implement security measures at the site to prevent as far as is practical unauthorised access to the site; and
 - (b) undertake regular inspections of all security measures and repair damage as soon as practicable.

Environmental Protection Act 1986
Licence: L8825/2014/1
File Number: DER2014/001147

Amendment date: 17 September 2015

IRLB_TI0701 v2.9



2 Emissions

2.1 General

2.1.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 2 of this Licence.

2.2 Emissions to land

2.2.1 The Licensee shall ensure that where waste is emitted to land 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: Emissions to land					
Emission point reference	Emission point reference on Map of emission points	Description	Source including abatement		
L1	Irrigation area	Discharge from final tank to irrigation area	Treated wastewater pumped from final storage tank		

2.2.2 The Licensee shall not cause or allow emissions to land greater than the limits listed in Table 2.3.2.

Table 2.3.2: Emission limits to land				
Emission point reference	Parameter	Limit (including units)	Averaging period	
	Load of Total Phosphorus	120 kg/ha/yr	Annual	
L1	Load of Total Nitrogen	480 kg/ha/yr	Annual	
	Volume	160 m ³ /day	Annual	

Amendment date: 17 September 2015

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147 Page 8 of 18



3 Monitoring

3.1 General monitoring

- 3.1.1 The Licensee shall ensure that:
 - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10; and
 - (c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.
- 3.1.2 The Licensee shall ensure that monthly monitoring is undertaken at least 15 days apart.
- 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 CEO accompanied with a report comprising details of any modifications to the methods.

3.2 Monitoring of emissions to land

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

Emission point reference	Monitoring point reference	Parameter	Units	Averaging Period	Frequency
	Flow meter to irrigation area	Volumetric flow rate (cumulative)	m³/day	Monthly	Continuous
		pH ¹	pH units		
L1	Outfall pipe to irrigation area	Biochemical Oxygen Demand Total Suspended Solids Total Dissolved Solids Total Nitrogen Total Phosphorus	mg/L	Spot Sample	Monthly
		E.coli	cfu/100 mL		
		Load of Total Nitrogen	kg/ha/day	Annually	Annually
		Load of Total Phosphorus	kg/ha/day	Annually	Annually

Amendment date: 17 September 2015

Note 1: In-field non-NATA accredited analysis permitted.

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147 Page 9 of 18

4 Information

4.1 Records

- 4.1.1 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 4.1.1(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.
- 4.1.2 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.
- 4.1.3 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.
- 4.1.4 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.

4.2 Reporting

4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 31 March each year. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual	Table 4.2.1: Annual Environmental Report			
Condition or table (if relevant)	Parameter	Format or form ¹		
-	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		
Table 1.3.1	Summary of any treatment capacity limit exceedances and any action taken.	None specified		
	Monitoring of emissions to land	LR1		
Table 3.2.1	Contaminant loading for Total Nitrogen and Phosphorus to land.	None specified		
4.1.3	Compliance	Annual Audit Compliance Report (AACR)		
4.1.4	Complaints summary	None specified		

Note 1: Forms are in Schedule 2

Environmental Protection Act 1986
Licence: L8825/2014/1
File Number: DER2014/001147
Amendment date: 17 September 2015
IRLB_TI0701 v2.9



- 4.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:
 - (a) an assessment of the information contained within the report against previous monitoring results and Licence limits.
- 4.2.3 The Licensee shall submit the information in Table 4.2.2 to the CEO according to the specifications in that table.

Table 4.2.2: Non-annual reporting requirements					
Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form ¹	
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEO's request	As received by the Licensee from third parties	

4.3 Notification

4.3.1 The Licensee shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO and in accordance with the notification requirements of the table.

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
1.3.1 and 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 working day	N1
		Part B: As soon as practicable	
3.1.4	Calibration report	As soon as practicable.	None specified

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

Amendment date: 17 September 2015

Note 2: Forms are in Schedule 2

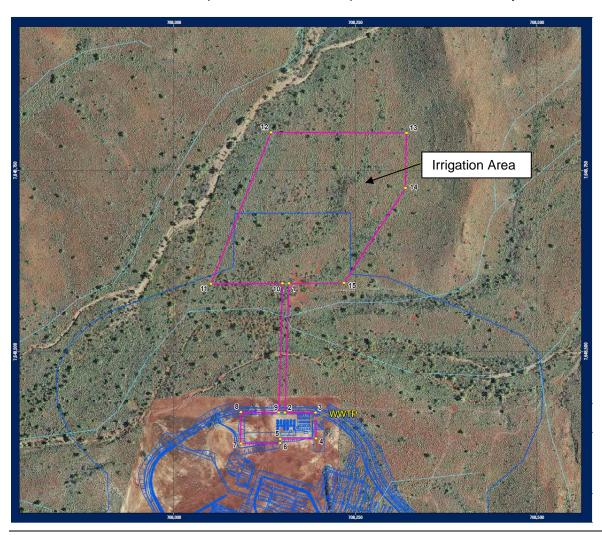
Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147 Page 11 of 18



Schedule 1: Maps

Premises map

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



	mE	mN
1	708,158	7,648,594
2	708,153	7,648,416
3	708,195	7,648,416
4	708,196	7,648,381
5	708,146	7,648,380
6	708,146	7,648,374
7	708,092	7,648,374
8	708,092	7,648,417
9	708,144	7,648,416
10	708,150	7,648,594
11	708,051	7,648,594
12	708,134	7,648,802
13	708,320	7,648,802
14	708,319	7,648,726
15	708,234	7,648,595



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.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A

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

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

 Were all conditions of the Licence complied with within the reporting period? (please tick the approp 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).

Amendment date: 17 September 2015

Initial:

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147 Page 13 of 18



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?:			
Yes Reported to DER verbally Date Reported to DER in writing Date	□ No		
d) Has DER taken, or finalised any action in relation to the non cor	mpliance?:		
e) Summary of particulars of the non compliance, and what was th	e environmental impact:		
f) If relevant, the precise location where the non compliance occurr	red (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:			

Amendment date: 17 September 2015

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) must 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:
	by the individual licence holder, or
An individual	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	by the principal executive officer of the licensee; or
unincorporated company	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.
	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
A corporation	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	by the principal executive officer of the licensee; or
A public authority (other than a local government)	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	by the chief executive officer of the licensee; or
a local government	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:/
SEAL (if signing under seal)	

Amendment date: 17 September 2015

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147



Licensee: IB Operations Pty Ltd

Form: LR1 Period

Name: Monitoring of emissions to land

Form LR1: Monitoring of emissions to land					
Emission point	Parameter	Result	Averaging Periods	Method	Sample date & times
	Volumetric flow rate (cumulative)	m ³ /day	Monthly		
	pН		Spot comple		
1.4	Biochemical Oxygen Demand	mg/L			
L1	Total Suspended Solids	mg/L			
	Total Nitrogen	mg/L	Spot sample		
	Total Phosphorus	mg/L			
	E.coli	cfu/100mL			

Signed on behalf of IB Operations Pty Ltd: Date:	
--	--

Amendment date: 17 September 2015



Licence: L8825/2014/1 Licensee: IB Operations Pty Ltd

Form: N1 Date of breach:

Notification of detection of the breach of a limit.

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	IB Operation Pty Ltd
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit		
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		

Amendment date: 17 September 2015

Environmental Protection Act 1986 Licence: L8825/2014/1 File Number: DER2014/001147 Page 17 of 18 IRLB_TI0701 v2.9

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	
IB Operations Pty Ltd	
Date	

Amendment date: 17 September 2015



Decision Document

Environmental Protection Act 1986, Part V

Proponent: IB Operations Pty Ltd Pty Ltd

Licence: L8825/2014/1

Registered office: 87 Adelaide Terrace

EAST PERTH WA 6004

ACN: 165 513 557

Premises address: North Star Wastewater Treatment Plant

Being part of Mining lease M45/1226

MARBLE BAR WA 6760

Issue date: Thursday, 4 September 2014

Commencement date: Monday, 8 September 2014

Expiry date: Saturday, 7 September 2019

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.

Decision Document prepared by: Damian Thomas

Licensing Officer

Decision Document authorised by: Stephen Checker

Delegated Officer

Environmental Protection Act 1986 Decision Document: L8825/2014/1 File Number: DER2014/001147 Page 1 of 8

Date of Amendment: 17 September 2015



Contents

Dec	cision Document	1
Cor	ntents	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	7
6	Risk Assessment	8

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.

Date of Amendment: 17 September 2015

Environmental Protection Act 1986 Decision Document: L8825/2014/1 File Number: DER2014/001147



2 Administrative summary

Administrative details				
Application type	Works Approval New Licence Licence amendment Works Approval amendment			
Activities that cause the premises to become	Category number(s)		Assessed design capacity	
prescribed premises	54		160m ³ /day	
Application verified	Date: N/A			
Application fee paid	Date: N/A			
Works Approval has been complied with	Yes No No N/A	A 🖂		
Compliance Certificate received	Yes No N/A			
Commercial-in-confidence claim	Yes No 🖂			
Commercial-in-confidence claim outcome	N/A.			
Is the proposal a Major Resource Project?	Yes No 🖂			
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the Environmental Protection Act 1986?	Yes No No Managed under Part V Assessed under Part IV		ged under Part V	
Is the proposal subject to Ministerial Conditions? Yes No EPA Report No:				
Does the proposal involve a discharge of waste	Yes No No			
into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Department of Water consulted Yes No			
Is the Premises within an Environmental Protection Policy (EPP) Area Yes \(\sum \no \infty\)				
If Yes include details of which EPP(s) here.				
Is the Premises subject to any EPP requirements? Yes \(\subseteq \text{No } \subseteq \)				
If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.				

Environmental Protection Act 1986 Decision Document: L8825/2014/1 File Number: DER2014/001147 Page 3 of 8

Date of Amendment: 17 September 2015



3 Executive summary of proposal

IB Operations Pty Ltd (IBO) is a joint venture between FMG Magnetite Pty Ltd and Formosa Steel IB Pty Ltd. IBO are constructing the North Star Hematite Project (the Project), located approximately 110 km south of Port Hedland. The Project involves the mining of waste and ore to produce run of mine (ROM) feed. Processing of the ROM feed will produce hematite which will be trucked to Port Hedland for export.

To support the construction of the Project, a camp has been established to accommodate the construction workforce of up to 440 persons. A wastewater treatment plant (WWTP) with the capacity to treat up to 160 m³/day has been constructed to treat wastewater produced by the kitchen, laundry and bathroom facilities associated with the camp.

IBO submitted a Form P4 licence amendment on 13 August 2015 requesting an amendment to the waste acceptance wording within Table 1.3.1. IBO are proposing to direct sewage waste from the site office and workshop ablutions to the WWTP. This waste was previously taken offsite for lawful disposal. This slight increase in sewage volume will not alter the production of design capacity of the WWTP. As part of this amendment, DER has not re-assessed the acceptability or impacts of emissions and discharges from the Premises or re-visited any existing emission control levels except for emissions to land. No changes to the conditions on the licence have been made with the exception of global changes in line with licence template updates.

Date of Amendment: 17 September 2015

Environmental Protection Act 1986 Decision Document: L8825/2014/1 File Number: DER2014/001147 Page 4 of 8

IRLB_TI0669 v2.7



4 Decision table

All applications are assessed under the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DER's *Policy Statement No.7 – Operational Risk Management* and the risk matrix attached to this decision document in Appendix A. Where other references have been used in making the decision they are detailed in the decision table.

DECISION TABL	-E		
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises operation	L1.3.2	Operation IBO submitted a Form P4 licence amendment on 13 August 2015 requesting an amendment to the Waste acceptance wording within Table 1.3.1. IBO are proposing to direct sewage waste from the site office and workshop ablutions to the WWTP. This waste was previously taken offsite for lawful disposal. This slight increase in sewage volume will not alter the production of design capacity of the WWTP. Accordingly Table 1.3.1 has been amended to allow sewage from the site office and workshop ablution to be accepted at the sewer inflow.	Application supporting documentation L8825/2014/1
Emissions to land including monitoring	L2.5	Operation Emission Description Emission: Treated wastewater effluent discharged to the dedicated spray irrigation field. Impact: Contamination of surrounding land and surface water drainage systems. Potential impacts on ecology of surface water from the addition of nutrients and Total Dissolved Solids. Controls: The proponent proposes to direct treated effluent to a dedicated spray irrigation field. Current licence conditions 2.5.2 stipulate limits for nutrient loading rates for effluent discharged to the spray irrigation area. Risk Assessment Consequence: Minor Likelihood: Rare Risk Rating: Low	Application supporting documentation L8825/2014/1

Date of Amendment: 17 September 2015



Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		Regulatory Controls Previous licence condition 2.5.3 stipulated emission to land targets for the spray irrigation area. However, in accordance with DER's new licensing process, the deletion of targets from the licence can occur if the environmental risk is low; therefore licence condition 2.5.2 has been deleted from the licence. Emissions to land are sufficiently regulated by annual loading rate limits. Residual Risk Consequence: Minor Likelihood: Rare Risk rating: Low	
Odour	L2.7.1	The previous licence contained conditions for odour management. Odour can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i> . In accordance with DER's licensing process, no specified conditions for fugitive emissions have been included on this licence.	Environmental Protection Act 1986.S49
Licence Duration	N/A	The licence has been issued for five years. Licence duration has not been reassessed as a result of this amendment.	N/A

Date of Amendment: 17 September 2015



5 Advertisement and consultation table

Date of Amendment: 17 September 2015

Date	Event	Comments received/Notes	How comments were taken into
			consideration
8/09/2015	Proponent sent a copy of draft instrument	No comments	N/A

Environmental Protection Act 1986 Decision Document: L8825/2014/1 File Number: DER2014/001147 Page 7 of 8

IRLB_TI0669 v2.7



6. Risk Assessment

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

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

Environmental Protection Act 1986 Decision Document: L8825/2014/1 File Number: DER2014/001147