



Mr Sean Savage
Specialist Environmental Advisor
Pilbara Iron Company (Service) Pty Ltd
GPO Box A42
PERTH WA 6837

Dear Mr Savage

ENVIRONMENTAL PROTECTION ACT 1986 – AMENDMENT TO LICENCE

Licence: L6755/1996/9
Premises: Dampier Wastewater Treatment Plant

Further to my letter dated 8 May 2014, please find enclosed your amended *Environmental Protection Act 1986* licence.

If you have any questions or objections relating to the licence, please do not hesitate to contact the enquiries officer above on (08) 9182 2009 for clarification or discussion of any grievances you have.

If you are concerned about, or object to any aspect of the amendment, you may lodge an appeal with the Minister for the Environment within 21 days from the date on which this licence is received. The Office of the Appeals Convenor can be contacted on 6467 5190 to find out the procedure and fee.

Members of the public may also appeal the amendments. The Appeals Registrar at the Office of the Appeals Convenor can be contacted after the closing date of appeals to check whether any appeals were received.

Yours sincerely

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

Thursday, 26 June 2014

enc: *Environmental Protection Act 1986* Licence L6755/1996/9, Decision Document
copy to: Local Government Authority: Shire of Roebourne

WESTERN AUSTRALIA
DEPARTMENT OF ENVIRONMENT REGULATION

Environmental Protection Act 1986

AMENDED LICENCE

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

LICENSEE AND OCCUPIER:

Pilbara Iron Company (Services) Pty Ltd
Level 22, Central Park
152-158 St Georges Terrace
PERTH WA 6000
ACN: 107 210 248

NAME AND LOCATION OF PREMISES:

Dampier Wastewater Treatment Plant
Part of Crown Lease L3116/3468, Lot 362 on Plan 14280, Lot 166 on Plan 215598 and Lot 247
on Plan 217466
DAMPIER WA 6713
(as depicted in Attachment 1)

Environmental Protection Regulations 1987

CLASSIFICATION(S) OF PREMISES:

Category 54 – Sewage facility

COMMENCEMENT DATE OF LICENCE: Thursday, 6 June 2013

EXPIRY DATE OF LICENCE: Sunday, 5 June 2016

CONDITIONS OF LICENCE:

As described and attached:

DEFINITION(S) (12)

GENERAL CONDITION(S) (3)

WATER POLLUTION CONTROL CONDITION(S) (11)

SOLID WASTE POLLUTION CONTROL CONDITION(S) (1)

ATTACHMENT(S) (2)



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

Date of Issue: Thursday, 30 May 2013

Date of Amendment: Thursday, 26 June 2014

WESTERN AUSTRALIA

DEPARTMENT OF ENVIRONMENT AND REGULATION

Environmental Protection Act 1986

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

PREAMBLE

Applicability

This licence is issued to Pilbara Iron Company (Services) Pty Ltd for the Dampier Wastewater Treatment Plant (WWTP) located on Part of Crown Lease L3116/3468, Lot 362 on Plan 14280, Lot 166 on Plan 215598 and Lot 247 on Plan 217466 (Attachment 1), which is a prescribed premises within Schedule 1 of the *Environmental Protection Regulations 1987* as outlined in Table 1:

Table 1: Category under which the Dampier WWTP is prescribed

Category number	Category name
54	Sewage facility

The Dampier WWTP services the town of Dampier. The WWTP consists of Imhoff tanks, trickling bed filters, a humus tank and a chlorination pit. Sludge removed from the plant is stored temporarily onsite within a lined sludge drying bed and treated wastewater is chlorinated prior to discharge.

Treated effluent is irrigated onto two sports ovals – Dampier Oval and Hampton Oval and at the WWTP grounds. The remaining treated water is discharged to the marine environment.

Other Legal Requirements

The licensee should be aware that these conditions do not exempt the premises/licensee from other statutory obligations under the *Environmental Protection Act 1986*, or any other Acts or Regulations. This includes the licensee's obligations under the:

- *Environmental Protection Regulations 1987*;
- *Environmental Protection (Noise) Regulations 1997*;
- *Environmental Protection (Unauthorised Discharges) Regulations 2004*;
- *Environmental Protection (Controlled Waste) Regulations 2004*; and
- *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*.

Where there is conflict between the conditions set in this licence and any Act or Regulations, the latter takes precedence.

Emergency, Accident or Malfunction

The licensee should inform the CEO as soon as practicable of the identification of any discharge of waste which has occurred as a result of an emergency, accident or malfunction, or extreme weather conditions, otherwise than in accordance with any condition of this licence and has caused or is likely to cause pollution.

Alteration to Premises

Prior to making any significant alterations to the premises which may affect the air, water or noise emissions from the premises the Licensee must submit a proposal to the CEO accompanied by supporting information and plans which allow the environmental impact of that change to be assessed.

Non-Standard Operations

The licensee should inform the CEO at least 24 hours prior to the commencement of any planned non-standard operations, which may have the potential to cause pollution.

WESTERN AUSTRALIA
DEPARTMENT OF ENVIRONMENT REGULATION

Environmental Protection Act 1986

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

DEFINITIONS

In these conditions of licence, unless inconsistent with the text or subject matter:

“Australian Standard 3780” means the most recent version and the relevant parts of the Australian Standard for the storage and handling of corrosive substances;

“Australian Standard 5667” means the most recent version and the relevant parts of the Australian and New Zealand series of guidance standards on Water Quality Sampling;

“cfu/100mL” means colony forming units per 100 millilitres;

“CEO” means Chief Executive Officer of the Department of Environment Regulation;

“CEO” for the purpose of correspondence means;

Manager Licensing (North West)
Department of Environment Regulation
PO Box 835
KARRATHA WA 6714
Telephone: (08) 9182 2000
Facsimile: (08) 9144 1118
Email: industryregpilbara@der.wa.gov.au;

“kg/day” means kilograms per day;

“kg/ha/year” means kilograms per hectare per year;

“mg/L” means milligrams per litres;

“NATA” means the Australian National Association of Testing Authorities;

“Standard Methods for Examination of Water and Wastewater-APHA-AWWA-WEF” means the best current practice of American water analysts developed by the American Public Health Association (APHA), the American Water Works Association (AWWA) and the Water Environment Federation (WEF);

“WWTP” means wastewater treatment plant; and

“WWTP grounds” means the area in the immediate vicinity of the WWTP as depicted in Attachment 1.

WESTERN AUSTRALIA
DEPARTMENT OF ENVIRONMENT REGULATION

Environmental Protection Act 1986

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

GENERAL CONDITIONS

ANNUAL ENVIRONMENTAL REPORT

- 1 The licensee shall by **30 April** each year, provide to the CEO an Annual Environmental Report containing the monitoring results and data collected as a requirement of any condition of this licence during the period **1 January** and ending on **31 December** in that year.

ANNUAL AUDIT COMPLIANCE REPORT

- 2 The licensee shall by **30 April** in each year, provide to the Director an Annual Audit Compliance Report in the form of Attachment 2 to this licence, signed and certified in the manner required by Section C of the form, indicating the extent to which the licensee has complied with the conditions of this licence, and any previous licence issued under Part V of the Act for the premises, during the period beginning **1 January** and ending on **31 December** in that year.

ODOUR EMISSIONS

- 3 The licensee shall record any odour complaints received by any person who is not on the premises and include a summary of these and the actions taken in the Annual Environmental Report.

WATER POLLUTION CONTROL CONDITIONS

SEWAGE WASTEWATER TREATMENT SYSTEM

- 4 The licensee shall manage and operate the wastewater treatment system in a manner such that:
- (i) uncontaminated stormwater runoff does not enter the treatment system;
 - (ii) there is not discernible seepage loss from the treatment system;
 - (iii) vegetation (emergent or otherwise) shall be prevented from growing in the treatment system; and
 - (iv) any sludges removed from the treatment system are disposed of in accordance with the *Western Australian guidelines for biosolids management*, Department of Environment and Conservation (February 2012).

DISCHARGE POINTS

- 5 The licensee shall ensure that effluent from the WWTP is only discharged to the environment through the ocean outfall, oval irrigation and WWTP grounds discharge points identified in Attachment 1.

FLOW MONITORING DEVICES

- 6 The licensee shall maintain suitable devices for measuring **monthly** cumulative volumes of treated wastewater discharged from the treatment system to:
- i) the ocean discharge outlet;
 - ii) the Dampier and Hampton Oval discharge outlet; and
 - iii) the WWTP grounds.
- The monthly flow results shall be provided in the Annual Environmental Report in accordance with condition 1.

TREATED WASTEWATER MONITORING PROGRAM

- 7 The licensee shall take representative water samples from the monitoring site shown in column 1 of Table 2, at the frequencies stated in column 2 of Table 2, and have analysed for the parameters listed in column 3 of Table 2.

WESTERN AUSTRALIA

DEPARTMENT OF ENVIRONMENT REGULATION

Environmental Protection Act 1986

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

Table 2: Water quality monitoring

Column 1	Column 2	Column 3
Monitoring Site	Frequency	Parameters
Discharge from the final holding tank (HIP09)	Quarterly	pH (pH units) Biochemical Oxygen Demand (mg/L) Total Dissolved Solids (mg/L) Total Suspended Solids (mg/L) Nitrate nitrogen (mg/L) Nitrite nitrogen (mg/L) Ammonium-nitrogen (mg/L) Total Nitrogen (mg/L) Total Phosphorus (mg/L) Free chlorine (mg/L) <i>E.coli</i> (cfu/100mL)
	Biannually	Metals (mg/L) – Cu, Zn, As, Pb, Hg

- 8 The licensee shall collect water samples in accordance with the relevant parts of Australian Standard 5667.
- 9 The licensee shall ensure that all parameters requiring laboratory analysis are conducted by an organisation with NATA accreditation for the specified parameters in accordance with the current Standard Methods for Examination of Water and Wastewater-APHA-AWWA-WEF.
- 10 The licensee shall compare the results of the water quality monitoring required by condition 7, to the targets stated in column 2 of Table 3, for the parameters in column 1 of Table 3 and present this information in the Annual Environmental Report along with corrective actions for any exceedances of these targets.

Table 3: Dampier WWTP effluent quality criteria

Column 1	Column 2
Parameter	Target Discharge
pH (pH unit)	6.5-8.5
Biochemical Oxygen Demand (mg/L)	<20
Total Dissolved Solids (mg/L)	3 000
Total Suspended Solids (mg/L)	<30
Nitrate nitrogen (mg/L)	<30
Nitrite nitrogen (mg/L)	<10
Total Nitrogen (mg/L)	<50
Total Phosphorus (mg/L)	<12
<i>E.coli</i> (cfu/100mL)	<1 000

- NUTRIENT LOADING RATES FOR IRRIGATION AREAS**
- 11 The licensee shall ensure that the nutrient loading rates for the irrigation areas does not exceed the targets in column 2 of Table 4 for the parameters in column 1 of Table 4. This information should be presented in the Annual Environmental Report along with corrective actions for any exceedances of these targets.

WESTERN AUSTRALIA
DEPARTMENT OF ENVIRONMENT REGULATION

Environmental Protection Act 1986

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

Table 4: Nutrient loading rates for the Dampier WWTP irrigation areas

Column 1	Column 2
Parameter	Target*
Total Nitrogen	480 kg/ha/year
Total Phosphorus	120 kg/ha/year

*Water Quality Protection Note 22 – *Irrigation with nutrient-rich wastewater* (Department of Water, 2008). These refer to Risk Category D.

CALCULATION OF CONTAMINANT LOAD

- 12 The licensee shall determine the average monthly load of each contaminant in the wastewater discharged from the final treatment pond (except pH and *E.coli*) using flow weighted data. The loads shall be based on the treated wastewater discharge volumes and the concentrations as measured in accordance with conditions 6 and 7. Annual average loads of each contaminant shall be reported in the Annual Environmental Report in kg/day.

BUNDING AND CONTAINMENT

- 13 The licensee shall store environmentally hazardous chemicals including alum and hypochlorite (where the total volume of each substance stored on the premises exceeds 250 litres) within a bunded areas in accordance with Australian Standard 3780.
- 14 The licensee shall direct any stormwater that accumulates in the bunded area referred to in condition 13 to the wastewater treatment system.

SOLID WASTE POLLUTION CONTROL CONDITIONS

TREATMENT POND MAINTENANCE

- 15 The licensee shall ensure all sludge removed from the Imhoff tanks is stored temporarily on-site within the lined sludge drying bed. The sludge drying bed shall be managed to prevent surface runoff of leachate across the boundary of the premises. Where possible, the sludge leachate shall be returned back into the wastewater treatment system.



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

Date of Issue: Thursday, 30 May 2013

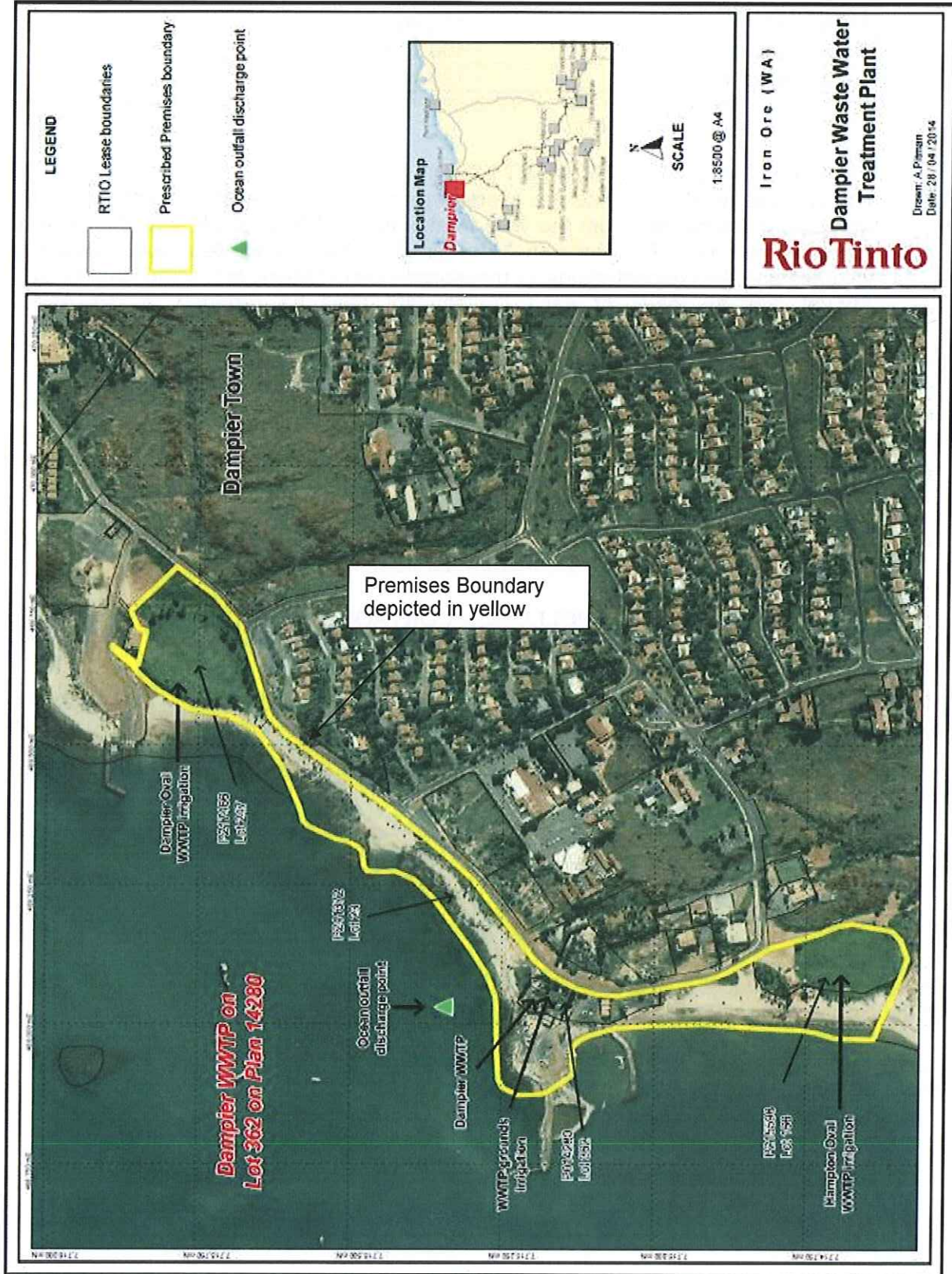
Date of Amendment: Thursday, 26 June 2014

WESTERN AUSTRALIA
DEPARTMENT OF ENVIRONMENT REGULATION
Environmental Protection Act 1986

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

ATTACHMENT 1 - PLAN OF PREMISES



LEGEND

- RTIO Lease boundaries
- Prescribed Premises boundary
- ▲ Ocean outfall discharge point

Location Map

SCALE
1:8500 @ A4

Iron Ore (W.A.)
Dampier Waste Water Treatment Plant

Drawn: A.Pearson
 Date: 28/04/2014

RioTinto

WESTERN AUSTRALIA
DEPARTMENT OF ENVIRONMENT REGULATION
Environmental Protection Act 1986

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

ATTACHMENT 2 – ANNUAL AUDIT COMPLIANCE REPORT

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 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 initialed by the person(s) who signs Section C of this Annual Audit Compliance Report

INITIAL: _____

WESTERN AUSTRALIA
DEPARTMENT OF ENVIRONMENT REGULATION
Environmental Protection Act 1986

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

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 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 initialed by the person(s) who signs Section C of this Annual Audit Compliance Report

INITIAL: _____

WESTERN AUSTRALIA

DEPARTMENT OF ENVIRONMENT REGULATION

Environmental Protection Act 1986

LICENCE NUMBER: L6755/1996/9

FILE NUMBER: DER2014/000107

SECTION C - SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report must only be signed by a person(s) with legal authority to sign it. The ways in which the Annual Audit Compliance Report 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 Annual Audit Compliance Report 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"/> by the individual licence holder, or <input type="checkbox"/> 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"/> by the principal executive officer of the licensee; or <input type="checkbox"/> 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"/> by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or <input type="checkbox"/> by two directors of the licensee; or <input type="checkbox"/> by a director and a company secretary of the licensee, or <input type="checkbox"/> if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or <input type="checkbox"/> by the principal executive officer of the licensee; or <input type="checkbox"/> 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"/> by the principal executive officer of the licensee; or <input type="checkbox"/> 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"/> by the chief executive officer of the licensee; or <input type="checkbox"/> 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) _____

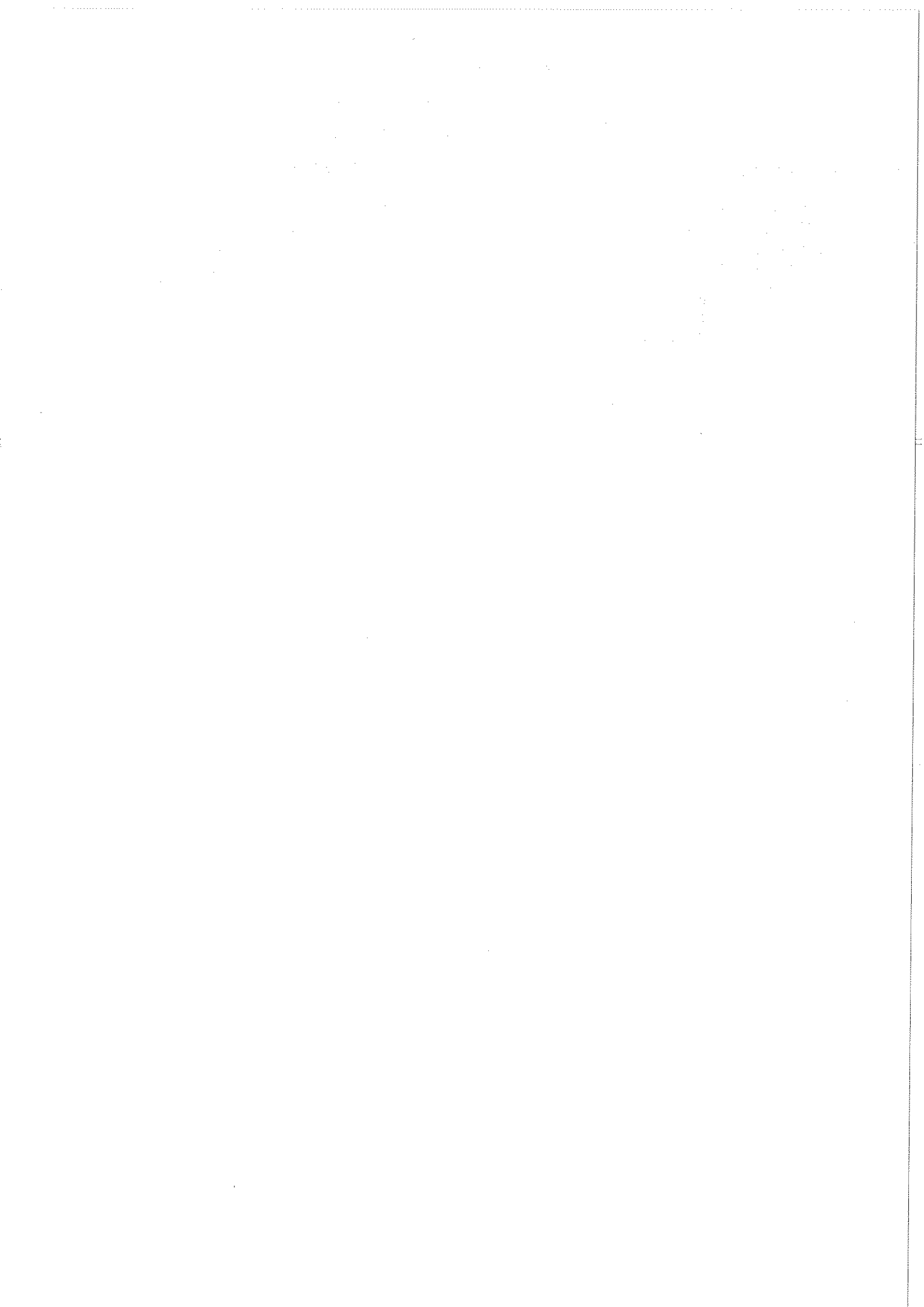
POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)





Decision Document

Environmental Protection Act 1986, Part V

Proponent: **Pilbara Iron Company (Services) Pty Ltd**

Licence: **L6755/1996/9**

Registered office: Level 22, Central Park
152-158 St Georges Terrace
PERTH WA 6000

ACN: 107 210 248

Premises address: Dampier Wastewater Treatment Plant
Part of Crown Lease L3116/3468, Lot 362 on Plan 14280, Lot 166 on Plan
215598 and Lot 247 on Plan 217466
DAMPIER WA 6713

Issue date: Thursday, 30 May 2013

Commencement date: Thursday, 6 June 2013

Expiry date: Sunday, 5 June 2016

Decision

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

Decision Document prepared by: Sonya Poor
Licensing Officer

Decision Document authorised by: Alana Kidd
Manager Licensing



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	6
5 Advertisement and consultation table	12
6 Emissions and discharges risk assessment framework	13

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 is 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 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	Category number(s) 54	Assessed design capacity 900 cubic metres per day
Application verified	Date: 12/03/2013	
Application fee paid	Date: 20/03/2013	
Works Approval has been complied with	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Compliance Certificate received	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Commercial-in-confidence claim	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Commercial-in-confidence claim outcome	N/A	
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 ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal

Pilbara Iron Company (Services) Pty Ltd (Pilbara Iron) operate the Dampier Wastewater Treatment Plant (WWTP), which is located within the town of Dampier in the Pilbara region of Western Australia. Sewage from Dampier town, Parker Point and East Intercourse Island (Rio Tinto Iron Ore mining operations) is directed to the Dampier WWTP.

The plant consists of Imhoff tanks, trickling bed filters, a humus tank and a chlorination pit. Following chlorination, treated effluent is sent to a final holding tank prior to irrigation to two sports ovals – Dampier Oval and Hampton Oval and at the WWTP grounds (Figure 1). Treated effluent that is not able to be recycled is discharged to the marine environment via an ocean outfall.

Sludge removed from the plant is stored temporarily onsite within a lined sludge drying bed and then disposed of in accordance with the *Western Australian guidelines for biosolids management* (Department of Environment and Conservation (DEC), December 2012).

Stormwater accumulated in bunded areas within the facility is also directed into the wastewater treatment system.

The Dampier WWTP has been inspected by former DEC officers on four occasions – June 2003, September 2007, September 2009 and May 2011 and recently by DER officers in November 2013. On each of these occasions the WWTP was found to be well maintained and in good condition. As per the May 2011 inspection, the sludge drying bed is now lined with a high density polyethylene (HDPE) liner and odour emissions within and outside the facility were not significant.

This amendment conducted in May 2014 is to expand the premises boundary, include the WWTP grounds as a discharge location and bring the target discharge in line with the *Guidelines for the Non-potable Uses of Recycled Water in Western Australia* (Department of Health (DoH), August 2011) low risk exposure level.



Figure 1: Irrigation locations

ditions 1,	N/A.	<p>General conditions for this licence relate to submitting an Annual Environmental Report (AER) and Annual Audit Compliance Report (AACR) by the 30 April each year.</p> <p>During this amendment an odour condition has been added to the licence.</p>	General provisions of the <i>Environmental Protection Act 1986</i> .
	N/A.	No specified conditions relating to general emissions are required to be added to the licence.	N/A.
	N/A.	<p>Operation <i>Emission Significance</i> - 1 <i>Socio-political context</i> - No concern or interest. <i>Risk Assessment</i> – E – No regulation, other management mechanisms.</p> <p>No point source air emissions are expected from the operation of the WWTP.</p> <p>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>	General provisions of the <i>Environmental Protection Act 1986</i> .

		<p>There are conditions on the existing licence relating to measuring the cumulative monthly volume of treated wastewater discharged from the WWTP to the ocean discharge outlet. Pilbara Iron are also required to sample the water from the final holding tank quarterly, with copper, zinc, arsenic, lead and mercury sampled twice a year.</p> <p>No additional conditions are required to be added to the licence.</p>	2004.
	N/A.	<p>Operation <i>Emission Significance</i> - 1 <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 groundwater during the operation of the WWTP.</p> <p>No specified conditions relating to point source emissions to groundwater are required to be added to the licence.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</p>
itions 5 -	N/A.	<p>Operation <i>Emission Significance</i> - 2 <i>Socio-political context</i> - Low concern or interest. <i>Risk Assessment</i> – D – EIPs, other management mechanisms.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p>

- human contact;
- no recorded community incidents or complaints;
 - design of the oval prevents spray drift;
 - no residential homes border the oval to the predominant wind direction (south-west); and
 - trees and other vegetation is in place to the north and east of the oval to provide cover and protection from spray drift.

Sludge removed from the plant is stored temporarily onsite within a lined sludge drying bed and then disposed of at the 7 Mile Rail Yard bioremediation facility (licensed under L6950/1997/11) and in accordance with the *Western Australian guidelines for biosolids management* (DEC, December 2012).

There are conditions on the existing licence relating to the sewage wastewater treatment system, measuring the cumulative monthly volume of treated wastewater discharged from the treatment system to the ovals and WWTP grounds and calculation of contaminant load. Quarterly monitoring of treated water from the final holding tank, biannual monitoring of copper, zinc, arsenic, lead and mercury, bunding and containment and treatment pond maintenance.

During this amendment target discharge parameters have been

Waste) Regulations 2004.

DoH Guidelines for the Non-potable Uses of Recycled Water in Western Australia, August 2011.

DEC Western Australian guidelines for biosolids management, December 2012.

		actions for any exceedances of these targets.	
	N/A.	<p>Operation <i>Emission Significance</i> – 1 <i>Socio-political context</i> – No concern or interest. <i>Risk Assessment</i> – E – No regulation, other management mechanisms.</p> <p>Dust and light emissions should not be significant during the operation of the WWTP.</p> <p>No specified conditions relating to fugitive emissions 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><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</p>
ition 3.	N/A.	<p>Operation <i>Emission Significance</i> – 2 <i>Socio-political context</i> – Low concern or interest. <i>Risk Assessment</i> – D – EIPs, other management mechanisms.</p> <p>Fugitive odours have the potential to impact on the nearby yacht club and recreational swimming areas. Pilbara Iron has a complaints line that members of the public can utilise and a complaints register is also kept.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p>

	<p>Noise emissions should not be significant during the operation of the WWTP. Pilbara Iron has committed to complying with the <i>Environmental Protection (Noise) Regulations 1997</i>.</p> <p>No specified conditions relating to noise are required to be added to the licence.</p>	<p><i>Protection (Noise) Regulations 1997</i>.</p>
<p>itions 6,</p>	<p>There are conditions on the existing licence relating to measuring the cumulative monthly volume of treated wastewater discharged from the treatment system to the ocean discharge outlet, ovals and WWTP grounds and calculation of contaminant load. As well as the quarterly monitoring of treated water from the final holding tank and biannual monitoring of copper, zinc, arsenic, lead and mercury,</p> <p>During this amendment target discharge parameters have been amended for biochemical oxygen demand, total suspended solids and <i>E.coli</i> in line with the DoH <i>Guidelines for the Non-potable Uses of Recycled Water in Western Australia</i>, August 2011 low risk exposure level.</p> <p>Conditions have also been added to the licence for the nutrient loading rates for the irrigation areas including targets and presenting this information in the AER along with any corrective</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
			actions for any exceedances of these targets.	
Monitoring of inputs and outputs	N/A.	N/A.	No specified conditions relating to monitoring of inputs and outputs are required to be added to the licence.	N/A.
Process monitoring	N/A.	N/A.	No specified conditions relating to process monitoring are required to be added to the licence.	N/A.
Ambient quality monitoring	N/A.	N/A.	No specified conditions relating to ambient quality monitoring are required to be added to the licence.	N/A.
Meteorological monitoring	N/A.	N/A.	No specified conditions relating to meteorological monitoring are required to be added to the licence.	N/A.
Improvements	N/A.	N/A.	No specified conditions relating to improvements are required to be added to the licence.	N/A.
Information	Licence conditions 1 and 2.	N/A.	The licence has conditions relating to the submission of an AER and AACR by the 30 April each year.	General provisions of the <i>Environmental Protection Act 1986</i> .

Amendment date: Thursday, 26 June 2014

Page 12 of 13
IRLB_TI0669 v2.5



6 Emissions and discharges risk assessment framework

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 th Percentile)			
		>100%	50 – 100%	20 – 50%	<20%*
Normal Operating Conditions (50 th 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

