



Licence

Environmental Protection Act 1986, Part V

Licensee: Woodside Burrup Pty Ltd

Licence: L8752/2013/2

Registered office: Woodside Plaza
240 St Georges Terrace
PERTH WA 6000

ACN: 120 237 416

Premises address: Pluto Liquefied Natural Gas (LNG) Project
Lot 384 Deposited Plan 220146, Lot 572 on Deposited Plan
28209 and Lot 574 on Deposited Plan 28209
BURRUP WA 6714 as depicted in Schedule 1

Issue date: Monday, 28 July 2014

Commencement date: Friday, 1 August 2014

Expiry date: Wednesday, 31 July 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
10	Oil or gas production from wells	5000 tonnes or more per year	6 million tonnes per annual period
34	Oil or gas refining	Not applicable	6 million tonnes per annual period
52	Electric power generation	20 megawatts or more in aggregate (using natural gas)	160 megawatts
61	Liquid waste facility	100 tonnes or more per year	36,000 – 146,000 tonnes per annual period
85	Sewage facility	More than 20 but less than 100 cubic metres per day	68 cubic metres per day

Conditions of Licence

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

Date signed: 21 January 2016

Jonathan Bailes
Manager Licensing (Process Industries)
Officer delegated under section 20
of the *Environmental Protection Act 1986*



Contents

Introduction	2
Licence conditions	5
1 General	5
2 Emissions	7
3 Monitoring	12
4 Information	14
Schedule 1: Maps	17
Schedule 2: Reporting & notification forms	20

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

Licence requirements

This licence is issued under Part V of the *Environmental Protection Act 1986*. 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 *Environmental Protection Act 1986* 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 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

The Pluto gas field was discovered in April 2005 and is located on the North West Shelf of Western Australia, approximately 190 kilometres (km) north-west of Dampier. The Pluto LNG Project processes gas and liquids piped onshore from an offshore riser platform to produce LNG and condensate.

The project consists of two main parts, the offshore component and the onshore component. The offshore component consists of wells feeding a remotely operated offshore riser platform. The offshore component is connected to the onshore component by a gas trunk line that transfers all recovered wellstream gas and liquids from the platform to the gas processing plant. Wellstream gas and liquids are processed so that natural gas, condensate and produced water are separated. Gas is processed to LNG, and the LNG and condensate exported to Asia on specially designed tankers. Approved design capacity for the project is 6 million tonnes per annum of LNG, though nominated throughput is 4.3 million tonnes per annum of LNG.

Woodside Burrup Pty Ltd (WBPL) is a wholly owned subsidiary of Woodside Energy Ltd (WEL), which in turn is a wholly owned subsidiary of Woodside Petroleum Ltd (WPL). WPL is Australia's largest publicly traded oil and exploration and production company. Primary activities include exploration, project development and producing assets.

This Licence is the result of an amendment sought by the Licensee to remove conditions relating to ambient air quality and meteorological monitoring. Ambient air quality monitoring was a requirement of the Air Quality Management Plan developed under Ministerial Statement 757. A pause in the monitoring program was approved by the Office of the Environmental Protection Authority (OEPA) in July 2015. Other amendments have been made to the Licence in accordance with template updates and Departmental reform.

The licenses and works approvals issued for the Premises are:



Instrument log		
Instrument	Issued	Description
Letter	24/9/2007	WBPL requested approval for the construction of the LNG and Condensate tanks. Due to the long lead time associated with construction of the tanks, it was necessary for WBPL to commence construction of these facilities prior to the LNG plant and associated infrastructure. Prior to the commissioning of the LNG tanks and associated pipes, WBPL were required to submit a pre-commissioning activities plan.
W4368/2007/1	27/9/2007	Works approval for Sewage Treatment Plant (category 85).
W4444/2008/1	1/9/2008	Works approval for 1 LNG processing train (categories 10 and 34).
W4466/2008/1	3/9/2009	Works approval for Effluent Treatment Plant (category 61 and 85).
L8299/2008/1	5/3/2009	Licence for WWTP (category 85). Note: Licence L8299/2008/1 will be revoked once this licence is issued. This will result in one licence for all facilities at the Pluto LNG Project.
L8299/2008/1	19/05/2011	Licence amendment to change the premises boundary and include categories 12 and 13
L8299/2008/2	22/03/2013	Amendment to remove category 13.
W4444/2008/1 (amendment)	22/10/2010	WBPL applied for an amendment to the works approval on 22 September 2010 to incorporate a temporary warm wet flare to conduct initial commissioning activities of the project until the permanent flare infrastructure was completed WBPL applied for an amendment to this works approval on 9 October 2010 to incorporate crushing and screening operations. This was previously conducted by mobile plant operating under mobile plant licenses, which DER no longer issues. Thus, WBPL was required to hold the approval to conduct these activities at the Pluto LNG Project.
L8299/2008/1 (amendment)	19/5/2011	The premises boundary was amended and categories 12 and 13 were added.
W4444/2008/1 (amendment)	9/08/2012	WBPL applied for an amendment to the works approval on 29 May 2012. Due to unforeseen delays associated with commissioning, the project Plant was not estimated to be fully operational until early 2013. WBPL also advised they were unable to install a sampling point on one of the emergency vent stacks. As a solution, a single sampling point was installed on the pipe upstream of the particular emergency vent stack. This sampling point is located in an accessible location and allows gas sampling to be undertaken.
W4444/2008/1 (amendment)	14/02/2013	WBPL applied for an amendment to the works approval on 20 December 2012 to extend the expiry date to 31 July 2013. Due to unforeseen issues and delays associated with commissioning, the Pluto Gas Plant was not estimated to be fully operational until early 2013. The works approval was to expire on the 31 March 2013 (and was extended during 2012 from 23 August 2012 to this date). The extension allowed WBPL to complete commissioning the facility and required environmental studies for approval closeout.
L8752/2013/1	25/07/2013	New Licence issue for operation.
L8299/2008/1	8/09/2013	Licence revoked to facilitate all prescribed premises categories being managed under Licence L8752/2013/1.
L8752/2013/2	24/07/2014	Licence reissue.
L8752/2013/2	16/04/2015	Licence amendment to change nitrogen and phosphorous targets from concentrations to annual loading rates.
L8752/20132	21/01/2016	Amendment to remove ambient air quality monitoring.



Severance

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

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

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

1.1.2 In the Licence, unless the contrary intention appears:

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

'amDEA' means activated methyl diethanolamine;

'AN-M-110' means testing Nitrogen Oxides from stationary sources by gas analyser using in-house AN-M-110 using the National Association of Testing Authorities Australia document dated 14 April 2014;

'annual period' means the inclusive period from 1 April until 31 March in the following year;

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

'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 is measured or a monitoring result is obtained;

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

'CEO' for the purpose of correspondence means:

Chief Executive Officer
Department administering the *Environmental Protection Act 1986*
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au;

'cfu/100 mL' means colony forming units per 100 millilitres;

'ETP' means Effluent Treatment Plant;

'hPa' means hectopascals;



‘Licence’ means this Licence numbered L8752/2013/2 and issued under the Act;

‘Licensee’ means the person or organisation named as Licensee on page 1 of the Licence;

‘LNG’ means liquefied natural gas;

‘MEG’ means monoethylene glycol;

‘NTU’ means Nephelometric Turbidity Units;

‘µg/L’ means micrograms per litre;

‘µS/cm’ means micro Siemens per centimetre;

‘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’ means the 4 inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March;

‘Ringelmann Method’ means the use of the Ringelmann miniature smoke charts provided by the United Kingdom Solid Fuel Technology Institute;

‘Schedule 1’ means Schedule 1 of [this](#) Licence unless otherwise stated;

‘Schedule 2’ means Schedule 2 of [this](#) Licence unless otherwise stated;

‘shut-down’ means the period when plant or equipment is brought from normal operating conditions to inactivity;

‘spot sample’ means a discrete sample representative at the time and place at which the sample is taken.

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

‘start-up’ means the period when plant or equipment is brought from inactivity to 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;

‘usual working day’ means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia; and

‘VOC’ means volatile organic compound.



- 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 version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

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 Point source emissions to air

- 2.2.1 The Licensee is permitted, subject to conditions in the Licence, to emit waste to the atmosphere from the emission points listed in Table 2.2.1 and identified in the Map of emission points in Schedule 1.



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	PGP 1A-1410 EXH Gas turbine stack	40	1A-1410 Mixed Refrigerant Compressor Gas Turbine
A2a	PGP 1A-1430 NTH Gas turbine with waste heat recovery unit	40	1A-1430 Propane Compressor Gas Turbine
A2b	PGP 1A-1430 STH Gas turbine with waste heat recovery unit	40	1A-1430 Propane Compressor Gas Turbine
A3a	PGP GTG4001 EXH Gas turbine	40	A-4001 Gas Turbine
A3b	PGP GTG4001 WHRU Gas turbine with waste heat recovery unit	40	A-4001 Gas Turbine
A4a	PGP GTG4002 EXH Gas turbine	40	A-4002 Gas Turbine
A4b	PGP GTG4002 WHRU Gas turbine with waste heat recovery unit	40	A-4002 Gas Turbine
A5	PGP GTG4003 EXH Gas turbine	40	A-4003 Gas Turbine
A6	PGP GTG4004 EXH Gas turbine	40	A-4004 Gas Turbine
A7	PGP RTO 1A-1251-B2 EXH Regenerative Thermal Oxidiser Stack	50	1A-1251-B2 Regenerative Thermal Oxidiser
A8	PGP RTO 1A-1251-B1 INL Regenerative Thermal Oxidiser Bypass Stack	50	Acid gas unit and other waste gases
A9a	Nitrogen Rejection Unit High Pressure Stack	45	Nitrogen Rejection Unit
A9b	Nitrogen Rejection Unit Low Pressure Stack	45	Nitrogen Rejection Unit
A10a	Warm Wet Flare – First Stage	130	Warm Wet Flare – Conventional with Air assist
A10b	Warm Wet Flare – Second Stage	130	Warm Wet Flare – Sonic flare tip
A11	Cold Dry Flare	130	Cold Dry Flare - One stage flare with sonic flare tip
A12a	Spare Flare – First Stage	130	Spare Flare – Conventional with Air assist
A12b	Spare Flare – Second Stage	130	Spare Flare – Sonic flare tip
A13a	Storage and Loading Flare Single stage flare with conventional flare tip	60	Storage and Loading Flare System
A13b	Storage and Loading Flare Single stage flares with conventional flare tip	60	Storage and Loading Flare System

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)^{1,2,3}	Averaging period
A1 – A7	Oxides of nitrogen	100 mg/m ³	Stack test average over a period not less than 30 minutes
A3 – A6 (operating in low load)	Oxides of nitrogen	140 mg/m ³	Stack test average over a period not less than 30 minutes
A10 - 13	Dark smoke	No dark smoke emissions of a shade of Ringelmann 3 or greater	Continuous 30 minute period

Note 1: All units are referenced to STP dry

Note 2: Units for A1 – A6 are referenced to 15% O₂

Note 3: Unit for A7 is referenced to 3% O₂

2.2.3 The Licensee is exempt from compliance from condition 2.2.2 if in the case of an event in Table 2.2.3 the corresponding management action is taken.

Table 2.2.3: Management actions

Emission point reference	Event/ action reference	Event	Management action
A1 – A13	EA1	Start up, shut down or upset conditions	The Licensee shall take all reasonably practical measures to minimise emissions



2.3 Point source emissions to surface waters

- 2.3.1 The Licensee is permitted, subject to conditions in the Licence, to emit wastes to surface water from the emissions points listed in Table 2.3.1 and identified in the Map of emission points in Schedule 1.

Table 2.3.1: Emission points to surface waters

Emission point reference and location on Map of emission points	Emission point reference	Description	Source
W1	Tie-in to Multi-user Brine Return Line	Tie-in to Water Corporation's discharge pipe to King Bay	Treated effluent from ETP

2.4 Emissions to land

- 2.4.1 The Licensee is permitted, subject to conditions in the Licence, to emit waste to land through the emissions points listed in 2.4.1 and identified in the Map of emission points in Schedule 1.

Table 2.4.1: Emissions to land

Emission point reference and location on Map of emission points	Emission point reference	Description	Source
L2	Dust suppression pipe for reuse onsite	Pipe feeding water trucks for use in dust suppression on roads.	Treated effluent from the ETP
L3	Irrigation system	Pipe feeding irrigation field	Treated effluent from the WWTP
L4	Irrigation system	Pipe feeding irrigation field	Treated effluent from the ETP

- 2.4.2 The Licensee shall not cause or allow emissions to land greater than the limits listed in Table 2.4.2.



Table 2.4.2: Emission limits to land

Emission point Reference	Parameter	Limit (including units)	Averaging period
L2	pH	6 – 9 pH units	Spot Sample
	<i>E.coli</i>	10 cfu/100 mL*	
	5 day Biochemical Oxygen Demand	20mg/L	
	Total Suspended Solids	30 mg/L	
	Turbidity	5 NTU	
	Inorganic Nitrogen	30 mg/L	
	Total Nitrogen	50 mg/L	
	Reactive Phosphorus	7.5 mg/L	
	Total Phosphorus	12 mg/L	
	Arsenic	2 mg/L	
	Chromium	1 mg/L	
	Cobalt	0.1 mg/L	
	Copper	5 mg/L	
	Lead	5 mg/L	
	Manganese	10 mg/L	
	Mercury	0.002 mg/L	
	Molybdenum	0.05 mg/L	
	Nickel	2 mg/L	
	Vanadium	0.5 mg/L	
	Zinc	5 mg/L	
	Oil and Grease	10 mg/L	
L3	5 day Biochemical Oxygen Demand	20 mg/L	Spot sample
	Total Suspended Solids	30 mg/L	
	<i>E.coli</i>	1000 cfu/100 mL	
	pH	6 – 9 pH units	Annual
	Load of Total Nitrogen	480 kg/ha	
	Load of Total Phosphorus	120 kg/ha	
L4	pH	6 – 9 pH units	Spot sample
	<i>E.coli</i>	10 cfu/100 mL*	
	5 day Biochemical Oxygen Demand	20mg/L	
	Total Suspended Solids	30 mg/L	
	Turbidity	5 NTU	
	Arsenic	2 mg/L	
	Chromium	1 mg/L	
	Cobalt	0.1 mg/L	
	Copper	5 mg/L	
	Lead	5 mg/L	
	Manganese	10 mg/L	
	Mercury	0.002 mg/L	
	Molybdenum	0.05 mg/L	
	Nickel	2 mg/L	
	Vanadium	0.5 mg/L	
	Zinc	5 mg/L	
	Oil and Grease	10 mg/L	
	Load of Total Nitrogen	480 kg/ha	Annual
	Load of Total Phosphorus	120 kg/ha	



3 Monitoring

3.1 General monitoring

- 3.1.1 The licensee shall ensure that for monitoring specified in the Licence:
- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1, with the exception of holding times where these are not achievable;
 - (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.
- 3.1.2 The Licensee shall ensure that for monitoring specified in the Licence:
- (a) monthly monitoring is undertaken at least 15 days apart;
 - (b) quarterly monitoring is undertaken at least 45 days apart; and
 - (c) annual monitoring is undertaken at least 9 months apart.
- 3.1.3 The Licensee shall record production or throughput data and any other process parameters, relevant to any non-continuous or CEMS monitoring undertaken in accordance with the conditions of the Licence.
- 3.1.4 The Licensee shall have all emissions monitoring equipment (for monitoring referred to in any condition of the Licence) calibrated in accordance with the manufacturer's specifications or internal management system.
- 3.1.5 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 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.

Table 3.2.1: Monitoring of point source emissions to air					
Emission point reference	Parameter	Units^{1,2,3}	Frequency⁴	Averaging period	Method
A1 – A7	Oxides of nitrogen	mg/m ³	Annually	Stack Test (Minimum 30 minute)	AN-M-110 or USEPA Method 7E
A10 – A13	Dark smoke emissions	Ringelmann shade	During flaring events where a shade greater than Ringelmann 1 emitted for a period of 30 minutes or more	Test Specific	Ringelmann Method
	Volumes of hydrocarbons flared	tonnes	During flaring events	Duration of flaring event	National Greenhouse and Energy Reporting (Measurement) Determination 2008.

Note 1: All concentration units for A1-A7 are referenced to STP dry.

Note 2: All concentration units for A1-A6 are referenced to 15% O₂.

Note 3: Concentration units for A7 are referenced to 3% O₂.

Note 4: Monitoring for A1-A7 shall be undertaken to reflect normal operating conditions.



3.2.2 The Licensee shall ensure that sampling A1-A7 required under condition 3.2.1 of the Licence is undertaken at sampling locations in compliance with the AS4323.1.

3.2.3 The Licensee shall ensure that all non-continuous sampling and analysis for A1-A7 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 Monitoring of point source emissions to surface water

3.3.1 The Licensee shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Monitoring of point source emissions to surface water				
Emission point reference	Parameter	Units	Averaging period	Frequency
W1	Hydrocarbons	mg/L	Spot sample	Quarterly
	Total free and dissolved hydrocarbons			
	Benzene			
	Total PAHs			
	Phenol			
	Metals	µg/L		
	Total Chromium			
	Chromium (VI)			
	Lead			
	Nickel			
	Zinc			
	Cadmium			
	Copper			
	Mercury			
	Silver			
	Others	°C		
	Temperature			
	pH	pH units		
	Sulphide	mg/L		
	Total Suspended Solids			
	Total Dissolved Solids			
	Total Organic Carbon			
	Process Additives			
	MEG			
	aMDEA			
Nutrients				
Total Phosphorus				
Total Nitrogen				
Ammonia Nitrogen (as N)				
Total Kjeldahl-N (as N)				



3.4 Monitoring of emissions to land

3.4.1 The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table.

Table 3.4.1: Monitoring of emissions to land				
Emission point reference	Parameter	Units	Averaging period	Frequency
L3	Volumetric flow rate (cumulative)	m ³ /day	Monthly	Continuous
	Total Nitrogen	mg/L	Spot sample	Quarterly
	Total Phosphorus			
	5 day Biochemical Oxygen Demand			
	Total Suspended Solids			
	<i>E.coli</i>	cfu/100mL		
	pH	pH units		

3.4.2 In the event that discharge to L2 or L4 is required, the Licensee shall undertake monitoring in accordance with the Contingency Wastewater Management Plan outlined in the Pluto LNG Project Marine Treated Water Management Plan-

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 (AACR) 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 (AER) within 90 calendar days after the end of the annual period. 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 Environmental Report		
Condition or table (if relevant)	Parameter	Format or form ¹
2.1.1	Exceedance of any limit specified in the Licence	N1
Table 3.2.1	Oxides of nitrogen, Dark smoke monitoring	None specified
Table 3.3.1	Total free hydrocarbons, Total dissolved hydrocarbons (including BTEX), Benzene, Total PAHs, Phenol, Total Chromium, Chromium (VI), Lead, Nickel, Zinc, Cadmium, Copper, Mercury, Silver, Temperature, pH, Sulphide, Total Suspended Solids, Total Dissolved Solids, , Total Organic Carbon, MEG, aMDEA, , Total Phosphorus, Total Nitrogen, Ammonia Nitrogen (as N), Total Kjeldahl-N (as N)	None specified
Table 3.4.1	Total Nitrogen, Total Phosphorus, 5 day Biochemical, Oxygen Demand, Total Suspended Solids, <i>E.coli</i>	None specified
	Annual loading rates of nitrogen and phosphorous	None specified
3.4.2	Discharge to L2 or L4 as applicable	None specified
4.1.3	Compliance	AACR
5.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

- 4.2.2 The Annual Environmental Report shall also contain:
- any relevant process, production or operational data recorded under condition 3.1.3;
 - an assessment of the information contained within the report against previous monitoring results and Licence limits; and
 - an assessment of data recorded under condition 3.3.1 against the criteria specified in the Pluto LNG Project Treated Waste Water Management Plan.
- 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
-	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
-	Quarterly shutdown report containing information regarding LNG plant shutdowns and associated flaring, and Regenerative Thermal Oxidiser status that have occurred in the quarter.	Quarterly	28 calendar days	N/A



4.3 Notification

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

Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
2.2.2	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5 pm of the next usual working day. Part B: As soon as practicable.	N1
2.2.5	Start up, shut down or upset conditions of the LNG plant with actual or expected dark smoke emissions in excess of limit	As soon as practicable, but no later than 5 pm of the next usual working day.	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 yellow line defines the Premises.





Map of emission points and monitoring locations

The locations of the emission points defined in Tables 2.2.1, 2.3.1 and 2.4.1 are shown below. The locations of the monitoring points defined in Tables 3.2.1, 3.3.1 and 3.4.1 are shown below.

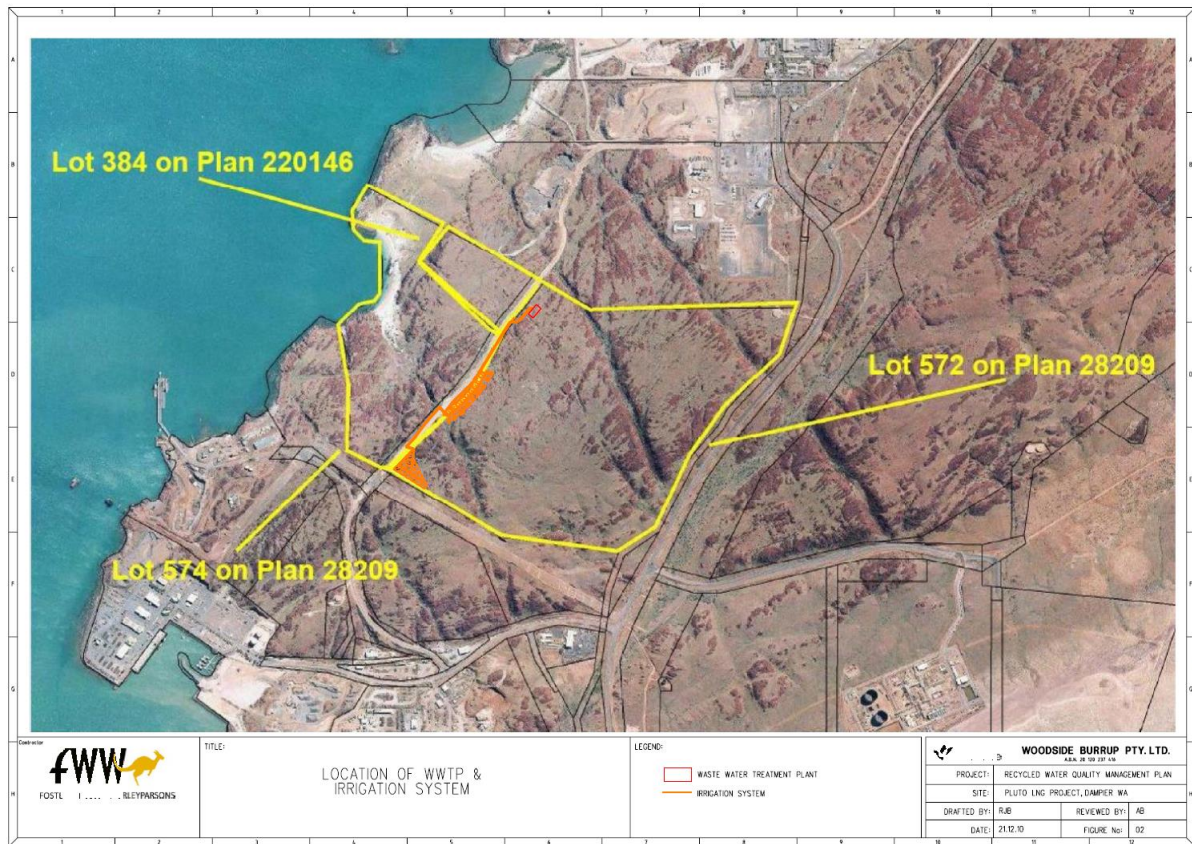




Map of emission points (Irrigation)

The locations of the emission points defined in 2.4.1 are shown below.

Irrigation System





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 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 <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the 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: _____

NAME:
(printed) _____

POSITION: _____

DATE: ____/____/____

SEAL (if signing under seal)

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: ____/____/____



Licence: L8752/2013/2
Form: N1

Licensee: Woodside Burrup Pty Ltd
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	L8752/2013/2
Name of operator	Woodside Burrup 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	

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 breach.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of Woodside Burrup Pty Ltd	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Licensee: **Woodside Burrup Pty Ltd**

Licence: **L8752/2013/2**

Registered office: Woodside Plaza
240 St Georges Terrace
PERTH WA 6000

ACN: 120 237 416

Premises address: Pluto Liquefied Natural Gas (LNG) Project
Lot 384 Deposited Plan 220146, Lot 572 on Deposited Plan
28209 and Lot 574 on Deposited Plan 28209
BURRUP WA 6714

Issue date: Monday, 28 July 2014

Commencement date: Friday, 1 August 2014

Expiry date: Wednesday, 31 July 2019

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER) has decided to issue an amended licence. The 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: Fiona Roser
Licensing Officer

Decision Document authorised by: Jonathan Bailes
Delegated Officer



Contents

Contents	2
1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
4 Decision table	5
5 Advertisement and consultation table	9
6 Risk Assessment	9

1 Purpose of this Document

This decision document explains how the DER has assessed and determined the application and provides a record of the DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to the 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.



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)	Assessed design capacity
	10	6 million tonnes per annual period
	34	6 million tonnes per annual period
	52	160 megawatts
	61	36,000 – 146,000 tonnes per annual period
	85	68 cubic metres per day
Application verified	Date: N/A	
Application fee paid	Date: N/A	
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-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 checked="" type="checkbox"/> No <input 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 checked="" type="checkbox"/> No <input type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input checked="" type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 757 EPA Report No: 1259
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"/>		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		



3 Executive summary of proposal and assessment

This Licence amendment application relates to the removal of the conditions requiring Woodside Burrup Pty Ltd (WBPL) to conduct ambient air quality monitoring. Ambient air quality and metrological monitoring conditions were previously included on the Licence to reflect commitments made under the Air Quality Management Plan (AQMP) developed under Part IV of the *Environmental Protection Act 1986*. The monitoring program, which included 24 months of monitoring for oxides of nitrogen and ozone, concluded in December 2013.

Following a review of the monitoring results, the Environmental Protection Authority (EPA) granted approval for WBPL to pause the air quality monitoring program until further notice. Considering the EPA's decision, WBPL has submitted an application to amend the Licence (L8752/2013/2) to remove conditions 3.8.1 and 3.9.1 relating to ambient air quality monitoring for oxides of nitrogen and ozone. DER's decision making is detailed in the Decision Table below. Where other changes have been made to the Licence conditions as a result of this amendment, these have also been detailed in the Decision Table.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	Previously 1.2.1 – 1.2.5	<p><i>Guidance Statement: Setting conditions</i> stipulates that licenses may be granted subject to conditions that are valid, enforceable and risk based. General conditions 1.2.1 – 1.2.5 are not considered to be consistent with the <i>Guidance Statement: Setting Conditions</i> as they are not sufficiently clear or certain. Accordingly, these conditions have been removed from the Licence.</p> <p>Unauthorised discharges of environmentally hazardous materials are subject to the provisions of the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>. The general provisions of the <i>Environmental Protection Act 1986</i> relating to causing pollution and environmental harm also apply.</p> <p>Contaminated stormwater from various areas of the premises is segregated and treated as follows:</p> <ul style="list-style-type: none">• Accidentally Oil-Contaminated (AOC) - drainage system collects surface water from kerbed areas in which there are sources of potential contamination, e.g. equipment containing liquid hydrocarbons. AOC drainage is tested and directed to the Effluent Treatment Plant (ETP) for treatment (if contaminated), or to the clean water drainage system (if not contaminated).• Continuously Oil-Contaminated (COC) - drainage system collects oily drainage from equipment via localised kerbs, drip trays, drain trays, funnels, etc. which drain to local sumps that are either emptied by vacuum tanker or pumped direct to the ETP.	<p>Guidance Statement: Setting Conditions</p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p> <p><i>Environmental Protection Act 1986</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<ul style="list-style-type: none"> Process Closed Drainage systems (CD) – selected areas within the processing plant will be provided with a closed loop drainage system to collect hydrocarbon liquids and chemicals. Chemical drainage is recovered into the process and the CD systems do not normally discharge fluids to the ETP. <p>Treated effluent from the ETP is discharged to the marine environment via the Water Corporation's Multi User Brine Return Line (MUBRL). Regulation of the treatment and discharge of contaminated stormwater via the ETP is described under 'Point source emissions to surface water'.</p>	
Emissions general	L2.1.1	Reference of descriptive and numeric targets has been removed in accordance with administrative changes implemented within the Department of Environment Regulation.	DER public website: www.der.wa.gov.au Ministerial Statement 757 TWWMP
Point source emissions to air including monitoring	L2.2.4 – 2.2.5	Condition 2.2.4 has been removed as it is a duplication of condition 2.2.3. Condition 2.2.5 has been deleted to remove emission targets in accordance with administrative changes implemented within the Department of Environment Regulation. The target for dark smoke has been transferred to a limit in condition 2.2.2.	
Point source emissions to surface water including monitoring	L2.3.2	Condition 2.3.2 has been removed to avoid duplication with Part IV regulatory requirements, as discharge criteria for the ETP are specified in the Pluto LNG Project Treated Waste Water Management Plan (TWWMP) developed under Ministerial Statement 757. The TWWMP also details contingency measures to be enacted in the event that the discharge criteria are exceeded. This ensures that the Pluto LNG Plant can continue to operate should the ETP experience upset conditions or the treated effluent is above the required specifications. Monitoring requirements remain unchanged and the Licensee is required to report monitoring data in the Annual Environment Report. In accordance with the TWWMP, DER will be notified in the event that wastewater discharged to the environment does not comply with the TWWMP (e.g. implementation of contingency measures has failed to achieve water quality criteria).	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Emissions to land including monitoring	L2.4.2	In accordance with administrative changes implemented within the Department of Environment Regulation, conditions that contain targets or trigger levels will not be applied or continued in licences or works approvals. Accordingly, condition 2.4.2 has been updated and targets previously stated in the Licence relating to discharges from the STP have been converted to limits. Monitoring requirements in the Licence remain unchanged with results of monitoring required to be submitted in the Annual Environmental Report.	
Fugitive emissions and odour	Previously L2.6.1 and L2.7.1	Conditions 2.6.1 and 2.1.7 relating to dust and odour have been removed from the licence. Both emissions were originally assessed as no regulation required, as other management mechanisms were sufficient to control the risk. However, standard generic fugitive emission conditions were added to the licence. In accordance with administrative changes implemented within the Department of Environment Regulation, generic fugitive emission conditions will not be used in relation to odour or dust, which can constitute a substantive offence under the EP Act. Given the low risk, no specific regulatory controls are required in the licence and the emissions can be sufficiently regulated under section 49 of the EP Act.	<i>Environmental Protection Act 1986</i>
Ambient quality monitoring and Meteorological monitoring	L3.8.1 – L3.9.1	Ambient air quality monitoring was previously undertaken in accordance with commitments made in the Air Quality Management Plan (AQMP) developed under Ministerial Statement 757 (condition 11-2(4)). Results of the monitoring program indicate that emission impacts are below the National Environmental Protection Measure (NEPM) standards for NO _x and O ₃ and therefore the environmental risk is low. Based on this information, the Environmental Protection Authority (EPA) determined that the monitoring program could be paused. Based on the EPA's determination to pause the ambient monitoring programme, DER has removed the requirement to carry out ambient air quality monitoring.	Guidance Statement: Setting Conditions MS757 & EPA Report 1259 AQMP
Information	Previously 5.2.1 4.2.1 (previously 5.2.2)	The final report and results for the ambient monitoring conducted in accordance with the AQMP were submitted to the DER in December 2014. Accordingly, condition 5.2.1 has been removed from the Licence. Condition 4.2.1 (previously 5.2.2) has been updated to reflect the removal of and changes to conditions as described above.	N/A



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Licence Duration	N/A	The licence is due to expire in July 2019. No changes to the duration of the Licence are proposed as part of this amendment.	Guidance Statement: Licence Duration



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
24/12/2015	Proponent sent a copy of draft instrument	<p>DER initially proposed that emission targets specified under condition 2.3.2 be converted to limits in accordance with administrative changes implemented by the Department of Environment Regulation.</p> <p>The Licensee has requested that the targets remain on the Licence to ensure consistency with the TWWMP, which allows operational flexibility in the event that the ETP cannot achieve water quality criteria (e.g. due to plant malfunction) and ensures continued operation of the Pluto LNG Plant. The TWWMP details contingency measures that can be implemented in such an event to maintain a high level of ecological protection at the edge of the mixing zone.</p>	Condition 2.3.2 has been removed as the discharge of treated wastewater is the subject of a Ministerial Statement and the associated TWWMP. Monitoring requirements remain unchanged and the Licensee is required to report results to DER and assess against the criteria in the TWWMP in the annual report.

6 Risk Assessment

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

Table 1: Emissions Risk Matrix

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