



Licence

Environmental Protection Act 1986, Part V

Licensee: TEC Hedland Pty Ltd

Licence: L8818/2014/1

Registered office: Parmelia House Level 2
191 St Georges Terrace
PERTH WA 6000

ACN: 169 777 404

Premises address: Hedland Precinct Power Project
Boodarie Station Access Road
BOODARIE WA 6722
Lot 601 on Deposited Plan 70566
as depicted in Schedule 1

Issue date: Thursday, 19 February 2015

Commencement date: Monday, 23 February 2015

Expiry date: Saturday, 22 February 2020

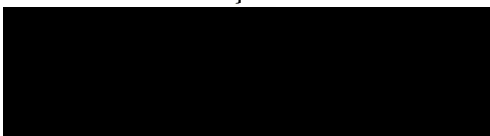
Prescribed premises category

Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
52	Electric power generation: premises (other than premises within category 53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel	20 megawatts or more in aggregate (using natural gas) 10 megawatts or more in aggregate (using a fuel other than natural gas)	68 MWe

Conditions

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



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Caron Goodbourn
A/Manager Licensing (Process Industries)

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



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Introduction

This Introduction is not part of the Licence conditions.

DWER's industry licensing role

The Department of Water and Environmental Regulation (DWER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DWER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

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

Licence requirements

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

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:
<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

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

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.



You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply. Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises. Operating without a licence is an offence under the Act.

Ministerial conditions

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

Premises description and Licence summary

TEC Hedland Pty Ltd operates the Hedland Precinct Power Project (HPPP), located in the Boodarie Industrial Estate, approximately 13 kilometres (km) south of Port Hedland and approximately 6 km west of South Hedland.

The nearest residences to the power station are:

- the South Hedland Rural Estate, 5 km to the east southeast;
- the town of South Hedland, 6 km to the northeast; and
- Boodarie Homestead, approximately 8 km to the west.

The closest industrial activity is the existing Alinta DEWAP Power Station, adjacent to the HPPP. The power station is located within the northern boundary of the Turner River Water Reserve, a Public Drinking Water Source Area (PDWSA), which has not been assigned a Protection Area rating by the Department of Water.

The 68 megawatt (MW) HPPP is the first of two stages of development. The original project proposed by HP comprised a permanent facility with a design capacity of 120 MW. Due to funding constraints and long lead times for permanent generation capacity, HP proposed the 68 MW HPPP as an interim solution. The HPPP has an anticipated operating life of five years. The HPPP generation units operated under this Licence provide consistency of power supply by meeting the predicted short term and peak power demands for the Port Hedland region until the procurement and construction of the permanent power station.

The HPPP comprises four open cycle gas turbine generators. Each gas turbine unit has a rated output of 26 MW and uses natural gas as its primary fuel source. The nominated maximum throughput of the power station is 68 MW. Diesel fuel is stored onsite as a secondary fuel source in the event of any disruption to the gas supply.

The HPPP is the source of a number of emissions to the atmosphere as a result of combustion of natural gas and diesel fuel. Emissions include greenhouse gases and other pollutants, such as carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO₂) and particulate matter (PM). However, NO_x is the principle emission of concern for the HPPP. There is a Guaranteed Performance Specification for each of the units to achieve a NO_x emission limit of 34 ppmvd while running on gas and 96 ppmvd while running on diesel. HP is also restricted to operating the temporary power station for a maximum of 200 hours per year on diesel fuel to minimise emissions associated with diesel operation. The HPPP was constructed under works approval W5048/2011/1.

This Licence is the result of an application to transfer the Licence to TEC Hedland Pty Ltd.



The licences and works approvals issued for the Premises since 3 February 2012 are:

Instrument log		
Instrument	Issued	Description
W5048/2011/1	03/02/2012	New application - South Hedland Power Station
W5048/2011/1	03/01/2013	Amendment to include the construction of the South Hedland Temporary Generation Power Station, comprising of four mobile generation units
W5048/2011/1	25/07/2013	Amendment to extend commissioning period
L8818/2014/1	19/02/2015	New Licence for Hedland Precinct Power Project
L8818/2014/1	16/07/2015	Transfer to new occupier APR Energy Pty Ltd
L8818/2014/1	11/07/2017	Transfer to new occupier TEC Hedland Pty Ltd

Severance

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

END OF INTRODUCTION



Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

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

‘the Act’ means the *Environmental Protection Act 1986*;

‘AHD’ means the Australian height datum;

‘annual period’ means the inclusive period from 1 January to 31 December 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*;

‘AS/NZS 5667.11’ means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters*;

‘averaging period’ means the time over which a limit is measured or a monitoring result is obtained;

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

‘CEO’ means Chief Executive Officer,

‘CEO’ for the purpose of notification means;

Director General
Department Administering the *Environmental Protection Act 1986*
Locked Bag 33 Cloisters Square
PERTH WA 6850
Info-der@dwer.wa.gov.au

‘freeboard’ means the distance between the maximum water surface elevations and the top of retaining banks or structures;

‘Licence’ means this Licence numbered L8818/2014/1 and issued under the Act;

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

‘MWe’ means power output (electricity generated) in megawatts;

‘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;

‘ppmvd’ means parts per million volumetric dry;

‘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;

‘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;

‘six monthly’ means the 2 inclusive periods from 1 April to 30 September and 1 October to 31 March in the following year;

‘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;

‘USEPA Method 7E’ means the promulgated Test Method 7E – Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyser Procedure);

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

‘µS/cm’ means microsiemens per centimetre.

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 the 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.



- 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.¹

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

1.3 Premises operation

- 1.3.1 The Licensee shall ensure that the use of diesel as a fuel source for power generation does not exceed 200 hours per annual period.
- 1.3.2 The Licensee shall ensure that waste material is only stored within areas or compounds provided with the infrastructure detailed in Table 1.3.1.

Table 1.3.1: Containment infrastructure		
Storage compound and location on map of storage locations	Material	Infrastructure requirements
Evaporation pond - E1	Process water, treated wastewater from the oily water separator and reject water from the demineralised water plant	Evaporation pond lined with clay liner to achieve a permeability of at least 10^{-9} m/s and designed to accommodate a 1 in 100 year annual recurrence interval rainfall event with a minimum freeboard of 300mm



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

Table 2.2.1: Emission points to air

Emission point reference and location on Map of emission and monitoring points	Emission point and source	Emission point height (m)	Source, including any abatement
A1	Stack 1 for Turbine 1	6m	GE TM2500 open cycle gas turbines (nominal maximum output of 26 MWe each)
A2	Stack 2 for Turbine 2	6m	
A3	Stack 3 for Turbine 3	6m	
A4	Stack 4 for Turbine 4	6m	

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	Averaging period
A1 – A4	Oxides of nitrogen	34 ppmvd using gas fuel	60 minute average (Stack test)
	Oxides of nitrogen	96 ppmvd using diesel fuel	60 minute average (Stack test)

Note 1: All units are referenced to STP dry and 15% oxygen

2.3 Emissions to land

2.3.1 The Licensee shall ensure that where waste is emitted to land from the emission points in Table 2.3.1 and identified on the map of emission and monitoring points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 2.3.1: Emissions to land

Emission point reference and location on Map of emission and monitoring points	Description	Source including abatement
L1 – L2	Oil Water Separators discharging to drainage systems	Stormwater from paved areas, service yards areas and building roofs



2.3.2 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
L1 – L2	Total Recoverable Hydrocarbons	15 mg/L	Spot sample

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;
- (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
- (d) 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:

- (a) quarterly monitoring is undertaken at least 45 days apart;
- (b) six monthly monitoring is undertaken at least 5 months 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 monitoring undertaken.

3.1.4 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.

3.1.5 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 Director accompanied with a report comprising details of any modifications to the methods.

3.2 Monitoring of point source emissions to air

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

Table 3.2.1: Monitoring of point source emissions to air				
Emission point reference	Parameter	Units ¹	Frequency ²	Method
A1 – A4	Oxides of Nitrogen	ppmvd	Annually	USEPA Method 7E

Note 1: All units are referenced to STP dry and 15% oxygen

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

3.2.2 The Licensee shall ensure that sampling required under Condition 3.2.1 of the Licence is undertaken at sampling locations in accordance with the AS 4323.1.

3.2.3 The Licensee shall ensure that all non-continuous sampling and analysis undertaken pursuant to condition 3.2.1 is undertaken by a holder of NATA accreditation for the relevant methods of sampling and analysis.



3.3 Monitoring of emissions to land

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 emissions to land			
Emission point reference	Parameter	Units	Frequency
L1 – L2	Total Recoverable Hydrocarbons	mg/L	Quarterly

3.4 Ambient environmental quality monitoring

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 ambient groundwater quality				
Monitoring point reference and location on Map of monitoring locations	Parameter	Units	Averaging period	Frequency
GQ1 – GQ5	Standing water level	m(AHD)	Spot sample	Six monthly
	pH	-		
	Electrical conductivity	µS/cm		
	Total Recoverable Hydrocarbons	mg/L		
	Benzene, toluene, ethylbenzene, xylene (BTEX)			
	Mercury			
	Lead			
	Arsenic			
	Copper			
	Nickel			
	Cadmium			
	Chromium			

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 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 Director an Annual Environmental Report within 28 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
-	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
1.3.1	Hours of operation using diesel fuel	None specified
Table 2.2.2	Limit exceedances	N1
Table 3.2.1	Emissions to air	AR1
Table 3.5.1	Total Recoverable Hydrocarbons	LR1
Table 3.8.1	Groundwater monitoring	GR1
4.1.3	Compliance Report	Template available on the Departments website www.dwer.wa.gov.au
4.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

- 4.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:
- (a) any relevant process, production or operational data recorded under Condition 3.1.3; and
 - (b) 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
-	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 Director in accordance with the notification requirements of the table.

Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
2.1.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
3.1.4	Calibration report	As soon as practicable.	None specified

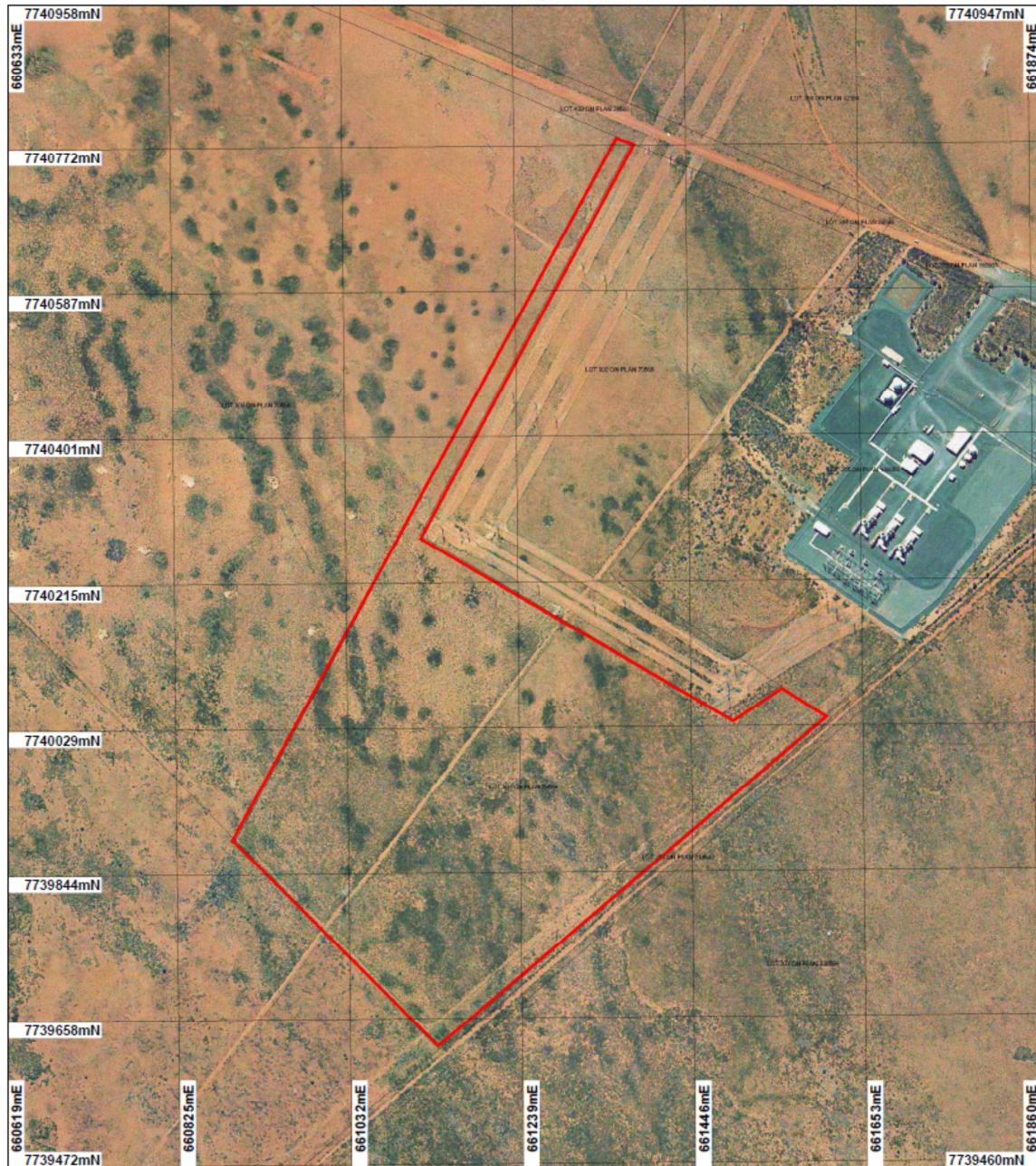
Note 1: Notification requirements in the licence shall not negate the requirement to comply with s72 of the Act

Note 2: Forms are in Schedule 2

Schedule 1: Maps

Premises map

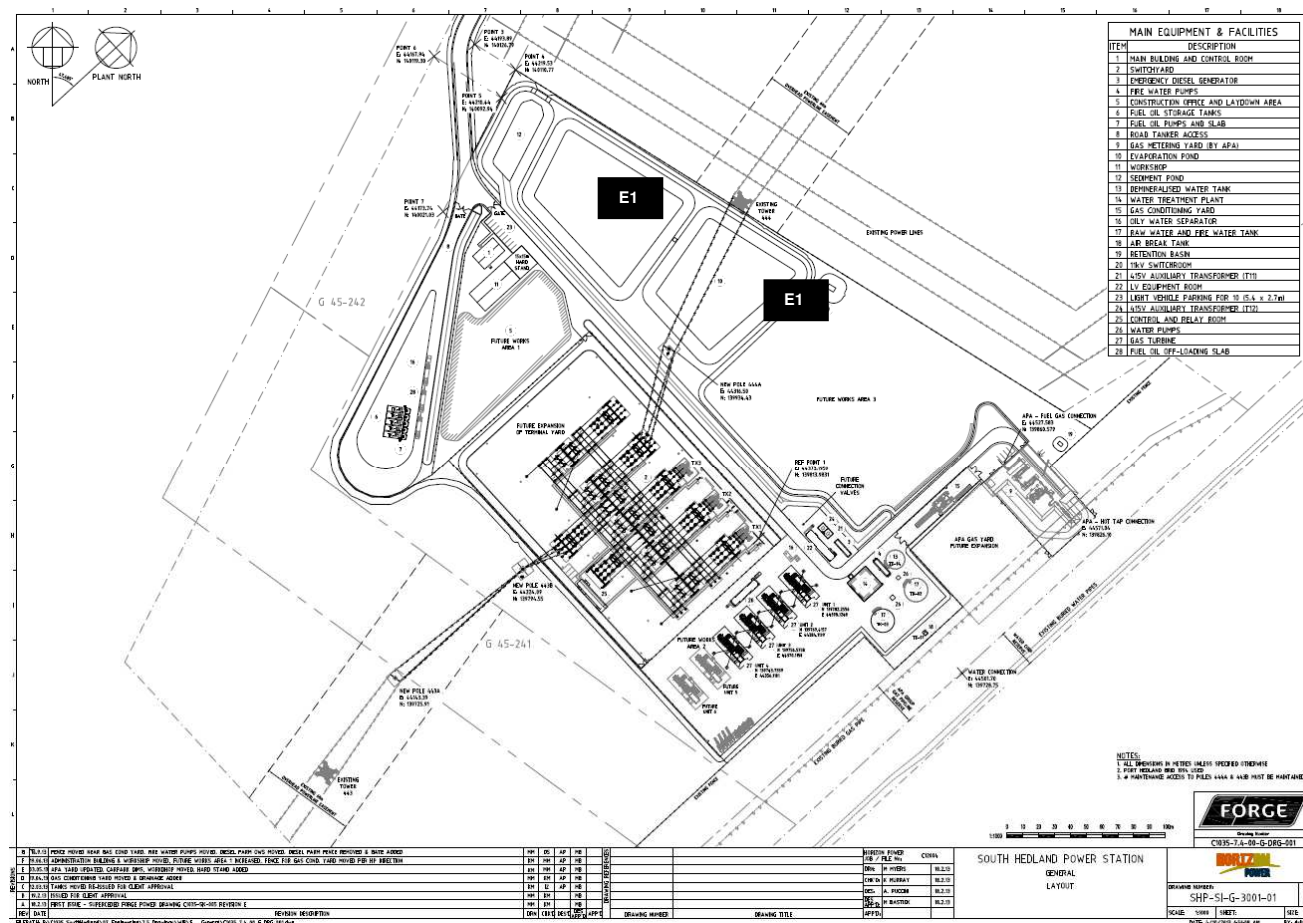
The Premises is shown in the map below. The red line depicts the Premises boundary.



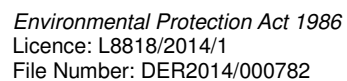


Map of storage locations

The locations of the storage location defined in Table 1.3.1 is shown below.

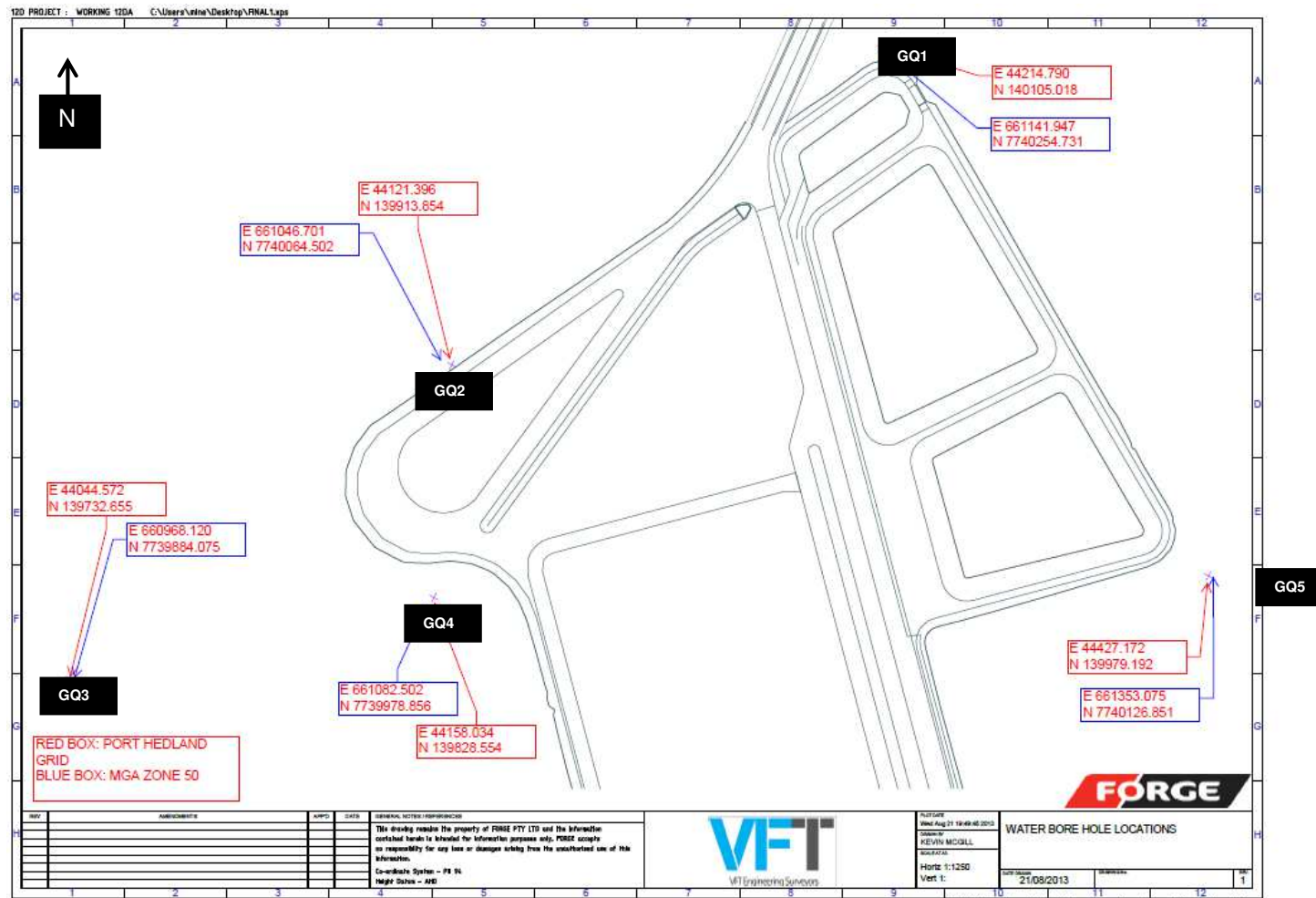


The locations of the emission and monitoring points defined in Tables 2.2.1, 2.3.1, 2.3.2, 3.2.1 and 3.3.1 are shown below.





The locations of the monitoring points defined Table 3.4.1 are shown below.





Licence: L8818/2014/1
Form: AR1
Name: Monitoring of point source emissions to air

Licensee: TEC Hedland Pty Ltd
Period :

Form AR1: Monitoring of point source emissions to air						
Emission point	Parameter	Limit	Result ¹	Averaging period	Method	Sample date & times
A1 – A4	Oxides of nitrogen (operating on gas)	34 ppmvd	ppmvd	60 minute average	USEPA Method 7E	
	Oxides of nitrogen (operating on diesel)	96 ppmvd	ppmvd	60 minute average		

Note 1: All units are referenced to STP dry and relevant Oxygen Correction in Table 2.2.2

Signed on behalf of TEC Hedland Pty Ltd: Date:



Licence: L8818/2014/1
Form: GR1
Name: Monitoring of point source emissions to groundwater

Licensee: TEC Hedland Pty Ltd
Period :

Form GR1: Monitoring of point source emissions to groundwater						
Emission point	Parameter	Unit	Result	Averaging period	Method	Sample date & times
GQ1 – GQ5	Standing water level	m(AHD)				
	pH	-				
	Electrical conductivity	µS/cm				
	Total Petroleum Hydrocarbons	mg/L				
	Benzene, toluene, ethylbenzene, xylene (BTEX)	mg/L				
	Mercury	mg/L				
	Lead	mg/L				
	Arsenic	mg/L				
	Copper	mg/L				
	Nickel	mg/L				
	Cadmium	mg/L				
	Chromium	mg/L				

Signed on behalf of TEC Hedland Pty Ltd: Date:



Licence: L8818/2014/1
Form: LR1
Name: Monitoring of emissions to land

Licensee: TEC Hedland Pty Ltd
Period :

Form LR1: Monitoring of emissions to land							
Emission point	Parameter	Limit	Unit	Result	Averaging period	Method	Sample date & times
L1	Total Petroleum Hydrocarbons	15mg/L	mg/L		Spot sample		
L2	Total Petroleum Hydrocarbons	15mg/L	mg/L		Spot sample		

Signed on behalf of TEC Hedland Pty Ltd: Date:



Licence: L8818/2014/1
Form: N1

Licensee: TEC Hedland 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	
Name of operator	
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 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 TEC Hedland Pty Ltd	
Date	