

Licence

Environmental Protection Act 1986, Part V

Licensee:

Electricity Generation and Retail Corporation

T/A Synergy

Licence:

L7167/1997/10

Registered office:

Australia Place, 11th Floor

15-17 William St PERTH WA 6000

Premises address:

Mungarra Gas Turbine Power Station

Nangetty-Walkaway Road WEST CASUARINAS WA 6630

Lot 101 on Plan 59625 as depicted in Schedule 1

Issue Date:

Thursday, 27 November 2014

Commencement Date: Tuesday, 30 December 2014

Expiry Date:

Sunday, 29 December 2019

Prescribed Premises Category

Schedule 1 of the Environmental Protection Regulations 1987

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
52	Electric power generation: Premises (other than Premises within category 53 or an emergency or	20 megawatts or more in aggregate (using natural gas) or	113 MW
	standby power generating plant) on which electrical power is generated using a fuel	10 megawatts or more in aggregate (using a fuel other than natural gas	

Conditions of Licence

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

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.

DER's industry licensing role

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

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER 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 Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

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

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

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



You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

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

Mungarra Gas Turbine Power Station is located approximately 70 kilometres (km) south east of Geraldton. The power station consists of three Frame 6 gas turbines:

- Units 1 and 2 which have been supplied to Hitachi and are rated at 37.4MW each; and
- Unit 3 which has been supplied by European Gas Turbines and is rated at 38.3MW.

The gas turbines are certified to operate in the Western Australian Wholesale Electricity Market (WEM). The principle function of this machine is to provide peak load capacity and load following and auxiliary services to the WEM.

The turbines can only be operated using natural gas. The gas turbine station is unmanned and the gas turbines are remotely operated and controlled by Western Power's Systems Operational Control Centre in East Perth. Synergy is responsible for the operation and maintenance of all turbines, plant and equipment at Mungarra Gas Turbine Station.

Key air emissions from the premises include nitrogen oxides, sulphur dioxide, particulates, carbon monoxide and volatile organic compounds. However, the risk associated with emissions to air is considered to be low.

There have been no operational changes on-site in the last 12 months or since the last licence reissue.

This Licence is a reissue of the existing licence and is the successor to licence L7167/1997/9. The licences and works approvals issued for the Premises since 30/12/2000 are:

Instrument log				
Instrument	Issued	Description		
L7167/1997/5	30/12/2000	Licence reissue		
L7167/1997/6	30/01/2002	Licence reissue		
L7167/1997/7	30/12/2003	Licence reissue		
L7167/1997/8	30/12/2004	Licence reissue		
L7167/1997/9	30/12/2009	Licence reissue		
L7167/1997/9	31/10/2013	Licence amendment to REFIRE format.		
L7167/1997/9	15/08/2014	Licence amended to change occupier name and updated to latest template version		
L7167/1997/10	27/11/2014	Licence reissue		



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 In the Licence, unless the contrary intention appears:

'Act' means the Environmental Protection Act 1986;

'annual period' means the inclusive period from 1 July until 30 June in the following year;

'Approved Methodology' means Pinjar Gas Turbines Station Environmental Licence Compliance, Methodology Report, Report No. GTB05/98, authored by Western Power and dated August 1998;

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

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

'CEMS' means continuous emissions monitoring system;

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

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

'CEO' for the purpose of correspondence means;

Manager Licensing (Midwest) Department of Environment Regulation PO Box 72

GERALDTON WA 6531

Telephone: (08) 9964 0901 Facsimile: (08) 9921 5713

Email: midwest@der.wa.gov.au;

'CO' means carbon monoxide;

'code of practice for the storage and handling of dangerous goods' means the document titled 'Storage and handling of dangerous goods: Code of Practice' published by the Department of Mines and Petroleum, as amended from time to time;

'dangerous goods' has the meaning defined in the Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007;

'environmentally hazardous material' means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous



goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;

'fugitive emissions' means all emissions not arising from point sources identified in Section 2.2;

'Licence' means this Licence numbered L7167/1997/10 and issued under the Act;

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

'MW' 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 excluding start-up, shutdown and upset conditions, in relation to stack sampling or monitoring;

'NOx' means oxides of nitrogen, calculated as the sum of nitric oxide and nitrogen dioxide and expressed as nitrogen dioxide;

'placard quantity' has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007;*

'PM' means total particulate matter including both solid fragments of material and miniscule droplets of liquid;

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

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

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

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

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

'SO2' means sulfur dioxide;

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

'USEPA Method 7E' means the Test Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure);

'USEPA Method 10' means the Test Method 10- Determination of Carbon Monoxide Emissions from Stationary Sources (Instrumental Analyzer Procedure);

'USEPA Method 18' means the Test Method 18- Measurement of Gaseous Organic Compound Emissions by Gas Chromatography;



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

'VOCs' means Volatile Organic Compounds;

- 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.

1.2 General conditions

- 1.2.1 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:
 - (a) pollution;
 - (b) unreasonable emission;
 - (c) discharge of waste in circumstances likely to cause pollution; or
 - (d) being contrary to any written law.
- 1.2.2 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.
- 1.2.3 The Licensee, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.
- 1.2.4 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
- 1.2.5 The Licensee shall implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises.

1.3 Premises operation

There are no specified conditions relating to Premises operation in this section.



2 Emissions

2.1 General

There are no specified conditions in this section.

2.2 Point source emissions to air

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

Emission point reference	Emission Point	Emission point height (m)	Source
A1	Stack 1	10.6	Unit 1 of Frame 6 gas turbine supplied by Hitachi and rated at 37.4MW
A2	Stack 2	10.6	Unit 2 of Frame 6 gas turbine supplied by Hitachi and rated at 37.4MW
A3	Stack 3	9.2	Unit 3 of Frame 6 gas turbine supplied by European Gas Turbines and rated at 38.3MW

2.3 Point source emission to surface water

There are no point source emissions to surface water in this section.

2.4 Point source emissions to groundwater

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

2.5 Emissions to land

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

2.6 Fugitive emissions

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

2.7 Odour

There are no specified conditions relating to odour in this section.

2.8 Noise

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



Monitoring

3.1 General monitoring

- 3.1.1 The licensee shall ensure that all 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 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.
- 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 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 of any one of the emission points listed in Table 3.2.1, according to the specifications in that table, on a rotational basis such that every stack is tested at least once in 3 years while the turbine is being fired on gas.

Table 3.2.1: Monitoring of point source emissions to air					
Emission point reference	Parameter	Units ^{1, 2}	Averaging period	Frequency	Method
Any one of A1, A2 or A3	NOx	mg/m ³ and g/s	Stack test (30 minutes average)	Annual	USEPA Method 7E
	СО		Stack test (30 minutes average)	Annual	USEPA Method 10
	VOCs		Stack test Spot sample	Annual	USEPA Method 18

Note 1: All units are referenced to STP dry Note 2: All units are referenced to 15% O₂.

3.2.2 The Licensee shall calculate on a monthly basis emissions data for parameters listed in Table 3.2.2 according to the specifications in that table using the Approved methodology.

Emission point reference	Parameter	Units	Frequency	Method
A1, A2, A3	NOx	mg/m ³	Monthly	Approved Methodology
to the second second	SO ₂	and g/s		
	PM			
	CO			
	VOCs			



- 3.2.3 The Licensee shall ensure that sampling required under Condition 3.2.1 of the Licence is undertaken at sampling locations in accordance with the AS 4323.1 or relevant part of the CEMS Code.
- 3.2.4 The Licensee shall ensure that all non-continuous sampling and analysis undertaken pursuant to condition 3.2.1 for the parameters specified in Table 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

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

3.4 Monitoring of point source emissions to groundwater

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

3.5 Monitoring of emissions to land

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

3.6 Monitoring of inputs and outputs

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

3.7 Process monitoring

There are no specified conditions relating to process monitoring in this section.

3.8 Ambient environmental quality monitoring

There are no specified conditions relating to process monitoring in this section.

3.9 Meteorological monitoring

There are no specified conditions relating to meteorological monitoring in this section.

4. Improvements

There are no specified improvement conditions in this section.



5 Information

5.1 Records

- 5.1.1 All information and records required by the Licence shall:
 - (a) be legible;
 - if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
 - (c) except for records listed in 5.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
 - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.
- 5.1.2 The Licensee shall ensure that:
 - (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
 - (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.
- 5.1.3 The Licensee shall complete an Annual Audit Compliance Report (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.
- 5.1.4 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

5.2 Reporting

5.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 1 October each year after the end of the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: Annual Environmental Report					
Condition or table (if relevant)	Parameter	Format or form ¹			
3.2.2	Emissions data for the mass flow rate (g/s) and concentrations for emissions (mg/m³) from the power generation equipment, for parameters including NOx, SO ₂ , PM, CO and VOCs, for each existing turbine calculated using the Approved Methodology.	None specified			
5.1.3	Compliance	AACR			
5.1.4	Complaints summary None specified				
-	Summary of any failure or malfunction of any pollution control equipment or any incidents that have occurred during the annual period and any action taken				
• .	Quantities of raw materials used None specified				
-	Quality and quantity of wastes produced None specified				
Table 3.2.1	NOx, CO and VOC stack monitoring data AR1				

Note 1: Forms are in Schedule 2



- 5.2.2 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 and/or targets with the data being presented in tabular format and significant results presented in graphical format including a discussion of any peaks in this data.
- 5.2.3 The Licensee shall submit the information in Table 5.2.2 to the CEO according to the specifications in that table.

Table 5.2.2: 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 CEOs request	As received by the Licensee from third parties

Note 1: Forms are in Schedule 2

5.3 Notification

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

Condition or table (if relevant)	Parameter	Notification requirement	Format or form ²
3.1.5	Calibration report	As soon as practicable.	None specified
11 5 1	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part A: As soon as practicable but no later than 5pm of the next usual working day.	N1
	100 d som take 100 to 1	Part B: As soon as practicable	

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





Map of emission points

The locations of the emission points defined in Tables 2.2.1, 3.2.1 and 3.2.2 are shown below.





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.

Licence Number:		44	Licence File Number:
Company Name:		L M gr	ABN:
Trading as:			
Reporting period:	job.	-1 5 941 11 1-	THE MIKE
	to		
appropriate box)		Van 🗆	Diago proceed to Costin
TATEMENT OF COMPLIANCE WITH LIC . Were all conditions of the Licence comp			od? (please tick the
		Yes 🗆	Please proceed to Section
		No [Please proceed to Section
		411619	
			*
9			
ach page must be initialled by the person(s	s) who signs Section	n C of this An	nual Audit Compliance
Report (AACR).			



SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

a) Licence condition not complied with:	
b) Date(s) when the non compliance occurred, if applicat	ole:
c) Was this non compliance reported to DER?	
Yes Reported to DER verbally Date Reported to DER in writing Date	□ No
d) Has DER taken, or finalised any action in relation to th	e non compliance?
e) Summary of particulars of the non compliance, and when	
g) Cause of non compliance:	
h) Action taken, or that will be taken to mitigate any adver	se effects of the non compliance:
) Action taken or that will be taken to prevent recurrence	of the non compliance:
ach page must be initialled by the person(s) who signs Se	ection C of this AACR
itial:	2 31 1110 7 9 1311



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:
ji		by the individual licence holder, or
An individual		by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other		by the principal executive officer of the licensee; or
unincorporated company	0	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.
ν γ		by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or
		by two directors of the licensee; or
		by a director and a company secretary of the licensee, or
A corporation		if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
X		by the principal executive officer of the licensee; or
	П	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 muchlic cuthority		by the principal executive officer of the licensee; or
A public authority (other than a local government)		by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government		by the chief executive officer of the licensee; or
a local government		by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE:	SIGNATURE:
NAME: (printed)	NAME: (printed)
POSITION:	POSITION:
DATE:/	
SEAL (if signing under seal)	

Environmental Protection Act 1986 Licence: L7167/1997/10 File Number:DER2014/001050-1

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Licence:

L7167/1997/10

Licensee:

Electricity Generation and Retail Corporation

(trading as Synergy)

Form:

N1

Date of breach:

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

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Licence Number	and the second of the second o
Name of operator	in the second of
Location of Premises	
Time and date of the detection	

Notification requirements for the bi	ach of a limit
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	lend
Date and time of monitoring	
Measures taken, or intended to	The second second
be taken, to stop the emission	. u. s b or "lwss.al

	any failure or malfunction of any pollution control equipment or d, is causing or may cause pollution
Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken , or intended to be taken, to stop any emission	
Description of the failure or accident	У



Part B

Any more accurate information on the matters for notification under Part A.	u v
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.	
e 20 •	
Name	
Post	
Signature on behalf of Electricity Generation and Retail Corporation (trading as Synergy)	
Date	