



Licence Number L8471/2010/2

Licence Holder Western Energy Pty Ltd

ACN 102 984 252

File Number: 2010/006141

Premises Western Energy Power Station Kwinana
Corner Burton and Donaldson Road
KWINANA BEACH WA 6167

Legal description –
Lot 13 on Plan 39572
KWINANA BEACH WA 6167

Date of Amendment 19 September 2018

Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act), as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

Paul Byrnes

**Manager, Process Industries
REGULATORY SERVICES**

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA).

Definitions and interpretation

Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
ACN	Australian Company Number
Amendment Notice	means an amendment granted under s.59 of the EP Act in accordance with the procedure set out in s.59B of the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 Cloisters Square PERTH WA 6850 info@dwer.wa.gov.au
EP Act	means the <i>Environmental Protection Act 1986</i> (WA).
EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA).
Licence Holder	refers to the occupier of the premises being the person to whom this Licence has been granted, as specified at the front of this Amendment Notice.
mg/m ³	Means milligrams per cubic metre

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

The amendment relates to changes in the monitoring requirements for emissions to air and changes to the definitions including definition of low sulphur fuel permitted by this licence.

Amendment description

Licence L8471/2010/10 issued on 3 September 2015 includes the requirement for monitoring for oxides of nitrogen *annually or within 28 days of exceeding 500 hours of operation whichever is sooner* and the requirement to monitor for particulate matter (PM) and sulfur dioxide annually if the combined hours of operation using distillate is more than 100 hours in a year.

The Licence Holder applied for an amendment on 25 June 2018 requesting an amendment to change the monitoring requirement for oxides of nitrogen to annual and at the same time offering to test PM and sulphur dioxide using diesel on an annual basis.

The Licence Holder's justification for the change is the change in operations at the facility. Formerly the facility was on standby for much of the time and the licence condition was designed to address the irregular operations at the facility. Furthermore the records of monitoring carried out to date show that emissions are not variable and remain well below the licence limits for emission of nitrous oxides to air. Emissions data is shown in Table 2

Table 2: NOx Emissions from stack tests 2010 to 2017

NOx Emissions from Natural Gas Fuel												
Biannual Emissions Recording - measurements in mg/dscm (Licence Limits 70mg/m ³)												
Engine	Acceptance Tests Emissions	Commercial Operation										
	Apr-10	Apr-11	Nov-11	May-12	Oct-12	Apr-13	Oct-13	Jun-14	Dec-14	Jun-15	Aug-16	Aug-17
GT100A	28	19	34	41	38	35	No test	64	36	60	39	43
GT100B		28	39	40	39	43	No test	62	40	63	41	40
GT200A		34	40	34	28	49	No test	69	41	25	38	47
GT200B		31	35	41	38	54	No test	69	38	160	38	39

The 2015 Annual monitoring report recorded emissions at GT200A of 340 mg/m³ and at GT200B of 160 mg/m³. The exceedence was attributed to intermittent failure of the water injection emission control system and once this was repaired the stack testing on GT200A was repeated with a reported NOx emission of 25 mg/m³.

Licence condition 1.2.1 requires that water injection is operating when the gas turbines are operating under normal operating conditions. However the definition of normal operating conditions is "any operation of a particular process excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring". This may create ambiguity as to whether the water injection technology is required by licence condition when stack testing is not taking place.

Decision

1. The Delegated Officer has found that the combination of the definition of Normal Operating Conditions and the requirements of Condition 1.2.1 could lead to the conclusion that water injection technology is only required during monitoring. The definition of Normal Operating Conditions has been amended to remove the reference to monitoring and Condition 1.2.1 has been amended to require water injection at all times. The definitions have also been updated reflect the current address details for DWER.
2. The Delegated Officer accepts that increase in production at the premises means that compliance with the current licence requirements difficult. The risk of NOx emissions from gas turbines using water injection is low. The licence is amended to require annual monitoring.
3. The Delegated Officer has amended Condition 5.3.1 to remove a notification requirement made redundant by the change in the monitoring conditions in Point 2 above.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 4 September 2018. Comments received from the Licence Holder on 18 September 2018 have been considered by the Delegated Officer as set out in Appendix 2.

Amendment

1. Definitions of the Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the red text shown in underline below:

~~“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;~~

“CEO” means Chief Executive Officer.

“CEO” for the purposes of notification means:

Director General

Department Administering the *Environmental Protection Act 1986*

Locked Bag 33 Cloisters Square

PERTH WA 6850

info@dwer.wa.gov.au

“normal operating conditions” means any operation of a particular process excluding start-up, shut-down and upset conditions, ~~in relation to stack sampling or monitoring;~~

2. Condition 1.2.1 of the Licence is amended by the deletion of the text shown in strikethrough below:

The Licensee shall ensure that the water injection technology is operational when the Generators are operating ~~under normal operation conditions.~~

3. Table 3.2.1 of the Licence is amended by the deletion of the text shown in strikethrough below:

Table 3.2.1: Monitoring of point source emissions to air				
Emission point reference	Parameter	Units^{1,3}	Frequency²	Method
A1 – A4	PM	mg/m ³ g/s	Annually ⁴	USEPA Method 5 or USEPA Method 17
	Sulphur dioxide	mg/m ³ g/s		USEPA Method 6 or 6C
	Nitrogen oxides	mg/m ³ g/s	Annually or within 28	USEPA Method 7E
	Carbon monoxide	mg/m ³ g/s	days of exceeding 500 hours of operation whichever is sooner.	USEPA Method 10

Note 1: All units are referenced to STP dry

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

Note 3: All units are referenced to 15% O₂

Note 4: Monitoring for SO₂ and Particulates shall not apply if the Generators combined hours of operation of distillate are less than 100 hrs per year. Monitoring of these parameters shall be conducted when Ultra Low Sulphur Diesel is the source.

4. Table 5.3.1 of the Licence is amended by the deletion of the text shown in strikethrough below:

Table 5.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
2.1.1	Breach of any limit specified in the Licence	As soon as practicable but no later than 5pm of the next usual working day.	N1
Not Applicable	Hours of diesel operation exceed 100 hours in an annual period	5 working days	None specified
Not Applicable	Hours of operation exceed 500 hours in any year.	5 working days	None specified

Note 1: Forms are in Schedule 2

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L8471/2010/2	L8471/2010/2	accessed at www.dwer.wa.gov.au
2	Application for amendment to licence	Application	DWER Records DWERDT3186
3	Application copy with signatures and data	Application	DWER Records DWERT3185
4	Kwinana Shift Power Station Annual Environmental Report Licence 8471/2010/1 1 September 2014 to 31 August 2015	2015 Annual Report	DWER Records A1014881
5	DER, July 2015. <i>Guidance Statement: Regulatory Principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
6	DER, October 2015. <i>Guidance Statement: Setting Conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
8	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2016b	
9	DER, November 2016. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	DER 2016c	

Appendix 2: Summary of Licence Holder comments

The Licence Holder was provided with the draft Amendment Notice on 5 September 2018 for review and comment. The Licence Holder responded on 18 September 2018. The following comments were received on the draft Amendment Notice.

Condition	Summary of Licence Holder comment	DWER response
5.3.1	The Licence Holder queried the need to report exceedance of 500 hours operations when the monitoring requirements in Condition 3.2.1 has been amended to remove the reference to 500 hours.	The Delegated Officer agrees with the Licence Holder and the notification requirements in Condition 5.3.1 has been amended accordingly.