



**Licence Number** L4328/1989/10

**Licence Holder** Wodgina Lithium Pty Ltd

**ACN** 611 488 932

**File Number:** DER2013/001044-1

**Premises** Wodgina Operations

Mining tenements M45/50, M45/381, M45/382,  
M45/923, M45/925 and M45/1252

**Date of Amendment** 10/06/2019

## 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.

**Alana Kidd**

**Manager – Resource 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
AHD	Australian Height Datum
Amendment Notice	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
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 10 Joondalup DC, WA 6919 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
Licence Holder Licensee	Wodgina Lithium Pty Ltd
mbgl	metres below ground level
mg/L	milligrams per litter
MW	megawatt

Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>

## 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.

This notice is limited to an amendment for Categories 5 and 52 of the EP Regulations. No changes to the aspects of the Licence relating to Category 54 and 89 have been assessed. The amendment is to:

- Extend the operational period of the Temporary 13MW Diesel Power Station; and
- Include TSF3 Extension Monitoring Bore to the groundwater monitoring programme.

The following guidance statements have informed the decisions made on this amendment:

- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessment (February 2017)*

## Amendment description

Wodgina Lithium Pty Ltd (WLPL) is currently approved to construct a lithium beneficiation plant with capacity of approximately 750,000 tonnes per annum (tpa) of spodumene – 250,000 tpa for each of the train, TSF3 Expansion and a 64MW gas fired power station.

An application for an amendment to the Licence L4328/1989/10 was received by the Department on 3 April 2019. In the application, the Licence Holder requested to extend the operational period of the Temporary Diesel Power Station from 6 to 10 months.

### Category 52 – Diesel Power Generator

To accommodate the operational power requirements for commissioning of the Beneficiation Plant whilst the new 64MW gas fired power station is being constructed and commissioned, a temporary 13MW diesel fed power station has been required.

The temporary diesel power station has been operational since February 2019. This amendment will cover operation of the facility through to November 2019 to ensure contingency should there be any construction/commissioning overruns. The design layout and setting of the temporary plant has not been altered. No clearing will be required as the infrastructure is within the footprint of the Beneficiation Plant.

After the gas power station commissioning period, the Temporary Diesel Power station will be decommissioned and removed from site.

There is no change in the expected emissions with those approved and conditioned in L4328/1989/10 Amendment Notice 3.

## Amendment history

Table 2 provides the amendment history for L4328/1989/10.

**Table 2: Licence amendments**

Instrument	Issued	Amendment
L4328/1989/10	12/12/2013	Licence amendment to amend submission date for Annual Environmental Report
L4328/1989/10	02/06/2016	Licence amendment for tyre disposal area
L4328/1989/10	07/02/2017	Licence transferred from Global Advanced Metals Wodgina Pty Ltd to Wodgina Lithium Pty Ltd. Administrative amendment undertaken in accordance with Departmental reform
L4328/1989/10	18/08/2017	Amendment Notice 1: Amendment to construct a new tyre disposal area and to increase the Category 89 capacity from 1,850 tonnes per annum to 3,350 tonnes per annum
L4328/1989/10	12/03/2018	Amendment Notice 2: Construction and operation of secondary fixed processing plant and 3 mobile crushing and screening plants
L4328/1989/10	25/01/2019	Amendment Notice 3: Addition of category 52, amendment crushing and screening locations, increase in tyre disposal from 200 to 500 tpa and expansion of the current disposal facility area, administrative correction to add an additional surface water monitoring point at the fixed screening plant; and Commissioning Plan for a Lithium Beneficiation Plant, TSF3 expansion and Gas Power Station.
L4328/1989/10	10/06/2019	Amendment Notice 4: Extension of operational period of the Temporary 13MW Diesel Power Station Inclusion of TSF3 MB Ext to the groundwater monitoring programme

## Consultation

The Temporary Diesel Power plant operation timeframe was discussed with DWER during a site inspection at Wodgina Lithium Mine on 18 March 2019.

## Location and receptors

Table 3 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

**Table 3: Receptors and distance from activity boundary**

Residential and sensitive premises	Distance from Prescribed Premises
Kangan Homestead	19 km west north-west
Yandeyarra Aboriginal Community	32 km west south-west
Altura Mine Site camp subject of licence L8610/2011/1	Distance to the Temporary Diesel Power Station – more than 6.5km.

Table 4 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

**Table 4: Environmental receptors and distance from activity boundary**

Environmental receptors	Distance from Prescribed Premises
Threatened/Priority Flora	There is priority 2 flora located on M45/381 with one located approximately 230 m from the existing WWTF.
Threatened/Priority Fauna	There are numerous threatened and priority fauna located within the Premises boundary.

Table 5 below lists the relevant groundwater and water sources in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

**Table 5: Groundwater and water sources and distance from Prescribed Premises boundary**

Groundwater and water sources	Distance from prescribed premises
Groundwater	TDNE3 PB is the nearest monitoring bore to the process plant area. It is located approximately 800m to the east of the Temporary Diesel Power Plant.  Groundwater level at TDNE3 PB is 14mbgl (Golder, 2018).

## Risk assessment

Table 6 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. The table identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

**Table 10: Risk assessment for proposed amendment during operation**

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts					
<b>Cat 52 Electric power generation</b>	Operation of the temporary, diesel fuel power station	Storm water from the power station and bulk fuel storage areas contaminated with hydrocarbons and/or sediment	Underlying soils, surface water systems and groundwater	Direct discharge  Run off/ infiltration	Localised contamination of soils. Stormwater run-off to surface water systems. Infiltration to groundwater	Slight	Rare	Low	Power will be generated from containerised generator units positioned on concrete strip. Diesel bulk fuel tanks are self bunded. The Delegated Officer has determined that discharge of hydrocarbon contaminated stormwater to surface waters occurring will be minimal at a local scale.  No issues reported to date.  No further assessment required.
		Emissions of Nitrogen oxides, sulfur oxides, carbon monoxide and volatile organic compounds	Altura Mine camp	Air/wind dispersion	None (sufficient separation distance)	N/A	N/A	N/A	The nearest potential receptor is the Altura Mine Accommodation Camp, 6.6km from the temporary diesel plant. The Delegated Officer considers that the separation distance between the source and potential receptor is sufficient to prevent air emissions and noise impacts on the only potential residential sensitive receptor.
		Noise, associated with operation of the power station	Altura Mine camp	Air/wind dispersion	None (sufficient separation distance)	N/A	N/A	N/A	No noise complaints have been received.  No further assessment required.

## Decision

Extension to operate temporary 13 MW diesel power station is authorised until November 2019 is granted.

An additional monitoring bore is required to be monitored downgradient of the TSF3 Expansion to determine if groundwater contamination is occurring due to seepage. The monitoring of bore TSF3 MB Ext is now required under condition 3.4.1.

As part of this amendment, the groundwater monitoring parameters required to be analysed under condition 3.4.1 have been expanded to include Boron and Tin. As part of internal Contaminated Sites advice for this site, these parameters were recommended and are therefore being incorporated now.

## Licence Holder's comments

The Licence Holder was provided with the Draft Amendment Notice on 20 May. The Licence Holder responded on 30 May 2019 waiving the remaining comment period. No comments were submitted on the Draft Amendment Notice 4.

## Amendment

- Condition 1.3.1 of the Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the bold text shown in underline below:

1.3.16 The Licensee must:

- notify the DWER one week prior to the power station commencing operation; and
- must operate the power station for a period of ~~six (6)~~ **ten (10)** months only unless authorized by the CEO.

- Condition 3.4.1 of the Licence is amended by the deletion of the text shown in strikethrough and the insertion of the bold text shown in underline below.

**3.4.1 The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table and record the results.**

<b>Table 3.4.1: Monitoring of ambient groundwater quality<sup>2</sup></b>				
<b>Monitoring point reference and location</b>	<b>Parameter</b>	<b>Units</b>	<b>Averaging period</b>	<b>Frequency</b>
Wastewater Treatment Plant Bores (WWTF1-WWTF5)	Standing water level <sup>1</sup>	m(AHD)	Spot sample	Monthly
	pH <sup>1</sup>	pH units	Spot sample	Quarterly
	Biochemical Oxygen Demand	mg/L		
	Chemical Oxygen Demand	mg/L		
	Total Dissolved Solids	mg/L		
	Total Suspended Solids	mg/L		
	E.coli	cfu/100mL		
	Total nitrogen	mg/L		
	Ammonia			
	Nitrate/Nitrite			
Total Phosphorus				



<i>Tailings storage facility 3 (TSF1-TSF6, RB1, RB4, MB1, MB3, RB3M, RB3, RB2M, RB2, MB2A, and MB2B and TSF3 MB Ext)</i>  <i>Retention pond downgradient bore (DG MB1)</i>	Standing water level <sup>1</sup>	m(AHD)	Spot sample	Monthly	
	pH <sup>1</sup>	pH units			
	Electrical Conductivity	mS/cm			
	Total Recoverable Hydrocarbons	mg/L			
	Total Dissolved Solids	mg/L	mg/L	Spot sample	Quarterly
	Aluminium				
	Arsenic				
	<b>Boron</b>				
	Bromide				
	Caesium				
	Cadmium				
	Calcium				
	Calcium carbonate				
	Chloride				
	Chromium				
	Cobalt				
	Copper				
	Fluoride				
	Iron				
	Lead				
	Lithium				
	Magnesium				
	Manganese				
	Mercury				
	Nickel				
	Total Nitrogen				
	Total Phosphorus				
	Potassium				
Rubidium					
Selenium					
Silicon					
Sodium					
Sulphate					
Thallium					
<b>Tin</b>					
Uranium					
Zinc					
Gross-alpha	Bq/L				
Gross-beta					

Note 1: In-field Non-NATA accredited analysis permitted.

Note 2: Level of detection is required to be sufficient to enable a comparison with ANZECC/ARMCANZ Guidelines (2000).

## Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L4328/1989/10 Wodgina Operations	L4328/1989/10	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
2	Licence L4328/1989/10 Wodgina Operations Amendment Notice 2		accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
3	Licence L4328/1989/10 Wodgina Operations Amendment Notice 3		accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
4	Golder, December 2018. Wodgina Lithium Project – 2018 Bore Completion and Testing Report – 1791873-001-R-Rev0	Golder, 2018	DWER records (REPORT18/501)