



Works Approval Number W6132/2018/1

Works Approval Holder Wodgina lithium Pty Ltd

ACN 611 488 932

File Number: DER2017/001949

Premises Wodgina Operations

Mining tenements M45/50, M45/381, M45/382,
M45/383, M45/886, M45/887, M45/923, M45/925
and M45/1252
MARBLE BAR WA 6760

Date of Amendment 13/02/2019

Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Works Approval 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

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

Definitions

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

Table 1: Definitions

Term	Definition
ACN	Australian Company Number
ANZECC/ARMCANZ	Australian and New Zealand Guidelines for Fresh and Marine Water Quality – Volume 1. National Water Quality Management Strategy
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 33 Cloisters Square PERTH WA 6850 info@dwer.wa.gov.au
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
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
Works Approval Holder	Wodgina Lithium Pty Ltd

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Works Approval 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 following guidance statements have informed the decision made on this amendment:

- *Guidance Statement: Regulatory Principles* (July 2015)
- *Guidance Statement: Decision Making* (February 2017)
- *Guidance Statement: Risk Assessment* (February 2017)

Amendment description

The Works Approval Holder, Wodgina Lithium Pty Ltd (WLPL) submitted a request on 7 December 2018 for an extension to the timeframe to complete Specified Condition 9 of Works Approval W6132/2018/1. The application also provides an update on progress to meet the requirements of conditions 8.

As no changes are proposed or made in this amendment application to specified condition 8 this Decision Report does not consider Condition 8 any further. All existing requirements from this condition remain.

On 5 December 2018 Wodgina Lithium Pty Ltd submitted two reports required as part of W6138/2018/1 Specified Condition 7:

- Hydrogeological Characterisation of Wodgina Mine Site (Ref. 8107657-003-R-Rev2); and
- Expanded Surface Water Assessment (Ref. 1893912-007-R-Rev0).

The initial Works Approval application did not include commissioning, hence commissioning was not assessed or authorised under the Works Approval.

On the 12 January 2019, WLPL submitted a Commissioning Plan to DWER as part of Licence L4328/1989/10 Amendment Notice 3 application, to enable commissioning to be assessed and incorporated into the licence.

The Commissioning Plan specifies the sequencing of the commissioning stages as follows.

Lithium Beneficiation Plant

1. Pre- commissioning (PC) – comprising static checks on unpowered equipment to confirm that the infrastructure has been built to specification.
2. Dry commissioning (DC) – comprising test operation of ‘empty’ but energised equipment and facilities without the addition of fuel, reagents, ore, water or air.
3. Wet commissioning: Stage 1 (SW1) – comprising test operation of equipment and facilities with water.
4. Wet commissioning: Stage 2 (WCS2) – comprising test operation of equipment and facilities with reagents, ore and water.

TSF3 Expansion

1. Pre-commissioning – comprising static checks on unpowered equipment to confirm that the infrastructure has been built according to specification and construction verification of the embankment.
2. Wet commissioning – comprising test operation of equipment and facilities with water. This includes leak testing all lines, checking operation of instrumentation, meters and cut off valves.
3. Tails commissioning – comprising test operation of equipment and facilities with tailings.

Amendment history

Table 2 provides the amendment history for W6132/2018/1.

Table 2: Works approval amendments

Instrument	Issued	Amendment
W6132/2018/1	19/09/2018	Amendment Notice 1 - amendment to extend the submission date for Specified Conditions 7 and 9
W6132/2018/1	13/02/2019	Amendment Notice 1 - amendment to extend the submission date for Specified Condition 9

Decision

Specified Condition 9: Contaminant reduction in tailings

Specified Condition 9 requires the Works Approval Holder to develop processes to reduce soluble concentrations of contaminants in the tailings supernatant so that concentrations expressed at the toe drain of the main embankment of the existing Tailings Storage Facility 3 (TSF3) meet specified levels.

The Decision Report for the Works Approval identified that there was a likelihood that seepage from this TSF could result in elevated levels above ANZECC/ARMCANZ trigger values for freshwater and livestock water.

The Works Approval Holder has requested a further four months extension of the timeframe to complete the assessment and submit the report to the CEO. This would extend the completion time required from 17 November 2018 to 15 March 2019. The time delay in completing the assessment and reporting to the CEO does not change the environmental risk and is therefore considered acceptable. Delay in this information being provided, does however means that deposition of tailings cannot be assessed and authorised. DWER requires the information to complete the risk assessment and determine whether WLPL will appropriately manage the risks to the environment.

As such, a definition of commissioning, for the purpose of this works approval, has been added, relevant to the Beneficiation Plant and the TSF3 expansion only. This is to ensure no tailings deposition occurs until the works approval specified action conditions are all satisfactorily met. Commissioning as defined by this Works Approval will allow low risk emissions only.

Wet commissioning with reagents, ore or tailings, is to only occur as part of the operational licence, once authorised (L4328/1989/2).

Condition Amendment

The Works Approval have been updated to refer to the new completion timeframe of Specified Condition 9. No other aspects of the condition have been changed.

Works Approval Holder's comments

The Works Approval Holder was provided with the Draft Amendment Notice on 12 February 2019. The Licence Holder responded on 12 February 2019 waiving the remaining comment period. No comments were submitted on the draft Amendment Notice conditions.

Amendment

1. Definitions of the Works Approval is amended by the insertion of the bold text shown in underline below:

Term	Definition
AEP	Annual Exceedance Probability
ANZECC/ARMCANZ 2000	Australian and New Zealand Guidelines for Fresh and Marine Water Quality – Volume 1. National Water Quality Management Strategy
Books	has the same meaning given to that term under 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
<u>Commissioning</u>	<p><u>For the purpose of this works approval, commissioning is only defined as:</u></p> <p><u>Lithium Beneficiation Plant</u></p> <p><u>1. Pre- commissioning (PC) – comprising static checks on unpowered equipment to confirm that the infrastructure has been built to specification.</u></p> <p><u>2. Dry commissioning (DC) – comprising test operation of ‘empty’ but energised equipment and facilities without the addition of fuel, reagents, ore, water or air.</u></p> <p><u>3. Wet commissioning: Stage 1 (SW1) – comprising test operation of equipment and facilities with water.</u></p> <p><u>TSF3 Expansion</u></p> <p><u>1. Pre-commissioning – comprising static checks on unpowered equipment to confirm that the infrastructure has been built according to specification and construction verification of the embankment.</u></p> <p><u>2. Wet commissioning – comprising test operation of equipment and facilities with water. This includes leak testing all lines, checking operation of instrumentation, meters and cut off valves.</u></p>
Condition	means a condition to which this Works Approval is subject under s.62 of the EP Act.

2. Condition 6 of the Works Approval is amended by the insertion of the text shown in bold and underline below as Specified Emissions in Table 3.

Emissions

6. The Works Approval Holder must not cause any Emissions from the Works authorised through this Works Approval except for specified Emissions and general Emissions described in Column 1 of Table 3, subject to the exclusions, limitations or requirements specified in Column 2, of Table 3.

Table 2: Authorised Emissions table

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
<u>Specified Emissions</u>	
<u>Commissioning of the Lithium Beneficiation Plant and TSF3 Expansion</u>	<u>Subject to Conditions 1, 2, 3 and 5</u>
General Emissions (excluding Specified Emissions)	
Emissions which arise from undertaking the Works set out in Schedule 2.	Emissions excluded from General Emissions are: <ul style="list-style-type: none"> • Unreasonable Emissions; or • Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or • Discharges of Waste in circumstances likely to cause Pollution; or • Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or • Emissions or Discharges which do not comply with an Approved Policy; or • Emissions or Discharges which do not comply with prescribed standard; or • Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or • Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the Environmental Protection (<i>Unauthorised Discharges</i>) Regulations 2004.

3. Condition 9 (Contaminants in Tailings) of the Works Approval is amended by the deletion of the text in strikethrough below and the insertion of the text in bold and underline below:

9. Within ~~6 (six)~~ **10 (ten)** months of the issue of the Works Approval, the Works Approval Holder must provide to the CEO detail of proposed processes to reduce soluble concentrations of contaminants in tailings supernatant, such that downstream concentrations in any seepage expressed at the toe drain of the main embankment of the existing TSF 3 (wall 31) meet the following contaminant levels:
- (a) Aluminium 0.055 mg/L (ANZECC/ARMCANZ 2000 trigger value for protection of 95% of species in freshwater ecosystems);
 - (b) Fluoride 2 mg/L (ANZECC/ARMCANZ 2000 trigger value for livestock drinking water);
 - (c) Chromium 0.001 mg/L (ANZECC/ARMCANZ 2000 trigger value for protection of 95% of species in freshwater ecosystems);
 - (d) Copper 0.0014 mg/L (ANZECC/ARMCANZ 2000 trigger value for protection of 95% of species in freshwater ecosystems);
 - (e) Nickel 0.011 mg/L (ANZECC/ARMCANZ 2000 trigger value for protection of 95% of species in freshwater ecosystems);
 - (f) Zinc 0.008 mg/L (ANZECC/ARMCANZ 2000 trigger value for protection of 95% of species in freshwater ecosystems);
 - (g) Thallium 0.002 mg/L (USEPA maximum contaminant level goal for drinking water – adopted in lieu of an appropriate Australian standard); and
 - (h) Lithium 0.7 mg/L (proposed USEPA drinking water trigger value – adopted in lieu of an appropriate Australian standard).

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Works Approval W6132/2018/1	W6132/2018/1	Accessed at www.dwer.wa.gov.au
2	Works Approval W6132/2018/1 – Amendment Notice 1		Accessed at www.dwer.wa.gov.au
3	Works Approval Amendment Application		DWER records (DWERDT114844)
4	Licence L4328/1989/10 Amendment Notice 3		Accessed at www.dwer.wa.gov.au
5	MBS Environmental, January 2019. Wodgina lithium Pty Ltd - Commissioning plan for infrastructure as per W6132/2018/1 - Revision 4.	Commissioning Plan	DWER records (A1755638)
6	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
7	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2016b	
8	DER, November 2016. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	DER 2016c	