Amendment Report

Application for Works Approval Amendment

Part V Division 3 of the Environmental Protection Act 1986

Works Approval

Number

W6154/2018/1

Works Approval Holder Albemarle Lithium Pty Ltd

ACN 618 095 471

File Number DER2018/000968

Premises Albemarle Kemerton Plant

109 Kemerton Road

Wellesley, WA 6233

Legal description -

Part of Lot 254 on Deposited Plan 416516

As defined by the coordinates in Schedule 1 of the Revised

Works Approval

Date of Report 21 October 2024

Decision Revised works approval granted

Alana Kidd

MANAGER, GREEN ENERGY

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

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1. Decision summary

Works Approval W6154/2018/1 is held by Albemarle Lithium Pty Ltd (works approval holder, Albemarle) for the Albemarle Kemerton Plant (the premises), located at 109 Kemerton Road, Wellesley 6233.

This Amendment Report documents the amendments made pursuant to section 59 and 59(B) of the *Environmental Protection Act 1986* (EP Act). The amendments do not alter the risk profile of the premises, providing that activities, emissions and receptors as stated in existing approvals remain unchanged.

As a result of this assessment, the delegated officer has determined to grant the proposed amendments for updating premises details, extending reporting periods and expiry date of works approval, updating reference terms, stack heights, sample runs, premises map, environmental commissioning for train 2, and time limited operations period. The delegated officer has refused the amendments relating to increasing environmental commissioning for trains 3, 4 and 5, and changing the register business address to the principle place of business for works approval W6154/2018/1.

The decision report for the existing works approval will remain on the department's website for future reference and will act as a record of the department's decision making.

2. Scope of assessment

2.1 Regulatory framework

In amending the works approval, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Application summary

On 9 August 2024, Albemarle submitted an application to the department to amend works approval W6154/2018/1 under section 59B of the *Environmental Protection Act 1986* (EP Act). The amendment is limited to:

- Updating the registered business address.
- Update the premises plan details from Part of Lot 254 on Deposited Plan 416513 to Part of Lot 254 on Deposited Plan 416516.
- Request an expiry date change from 15 November 2025 to 15 November 2030.
- Request an increase to environmental commissioning from 180 to 365 calendar days in aggregate for each processing trains 2-5.
- Request a change to time limited operations (TLO) to allow for TLO operations to continue once a licence application has been submitted and is under assessment.
- Request an increase from 30 to 60 calendar days for environmental commissioning report submission.
- Request an increase from 30 to 60 calendar days for TLO report submission.
- Request changes to duplicate sample runs for air emission environmental commissioning sampling.
- Update the reference terms and descriptive wording.
- Update the calciner vent stack heights for trains 3 -5.

• Update Figure 1 premises map.

The premises relates to the categories and the assessed production/design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in existing works approval W6154/2018/1.

Further details of the requested amendments are provided below.

Change of premises legal description and registered business address

There is a typographical error in the legal description requiring a change from Part of Lot 254 on Deposited Plan 416513 to Part of Lot 254 on Deposited Plan 416516.

The works approval holder requested a business change from registered business address Level 3, 25 National Circuit Forrest ACT 2603 to Level 1, to registered principal place of business 197 St Georges Terrace Perth WA 6230.

Extension of works approval expiry date

Albemarle Kemerton Plant has recently announced a hold on the construction of trains 3, 4 and 5 and environmental commissioning of train 2. The existing works approval expires on 15 November 2025. The works approval holder has requested the expiry date be changed to 15 November 2030, to allow time for future construction and commissioning of trains 2, 3, 4 and 5 once recommenced.

Update of descriptive wording in works approval and premises map

The works approval holder has requested changing wording within the works approval to correct terms for its product and description of infrastructure including the following changes:

- "All automated packaging equipment must be housed in an enclosed warehouse under positive air pressure" to "all automated packaging equipment must be housed in an enclosed room under positive air pressure (controlled environment room) in a warehouse".
- "grated ball mill" to "ball mill".
- "Sodium hydroxide packed scrubber" to "Sodium hydroxide packed tower scrubber".
- "Sodium sulphate" be corrected to be "Sodium sulphate anhydrous".
- Update Schedule 1 Figure 1 Premises Map with an updated aerial map reflecting the changes to the premises.

Changes to calciner stack height and air emission sampling runs

The works approval holder requests the following changes to stack heights and environmental commissioning air emission sample runs:

- Calciner vent stack heights be changed to "at least 33 m" instead of [exactly] "33 m".
 This is due to minor modifications in materials handling design, the stack heights for trains 3 5 are expected to be approximately 39 m once constructed, with no expected changes to air emission dispersion.
- Air emission sampling for environmental commissioning be changed from "Duplicate sample runs conducted consecutively on the same sampling day" to Duplicate sample runs conducted consecutively on the same sampling day where practicable, otherwise on the next available day". The works approval holder has experienced from stack emissions monitoring for Train 1, that it is often not feasible due to the plant not being operational for the full day to undertake consecutive samples. Albemarle therefore requests that Note 3 in Table 5 be amended.

Changes to environmental commissioning and reporting period

The works approval holder has requested that environmental commissioning for trains 2 to 5 for authorised duration and air emission sampling are aligned to both count aggregate calendar days. The works approval holder requested that environmental commissioning for

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trains 2 to 5 is increased from 180 to 365 aggregate calendar days for air emission sampling and that authorised duration is changed from 365 calendar days to 365 aggregate calendar days. With environmental commissioning reporting period changed from 30 to 60 calendar days after completion of environmental commissioning for each processing train.

The works approval holder indicated that 468 aggregate calendar days were required to environmentally commission the pyrometallurgical and hydrometallurgical units for train 1. It was found that components within each unit were required to be run for short periods (using up authorised duration calendar days) before the train could be operated at 'normal operating conditions' to undertake the required emission sampling. The works approval holder indicated that environmental commissioning for each train within the existing 180 aggregate calendar days for sampling events, and 365 calendar days for duration was insufficient time and there were inconsistent days counts between sampling and duration requirements.

Furthermore, train 2 has been partially commissioned and has accumulated 309 aggregate calendar days but is currently under care and maintenance with re-commissioning dates unknown.

In addition, the existing 30 calendar days reporting period is insufficient time to collate laboratory analysis data, produce data reports, provide sufficient interpretation and review processes.

Time limited operations authorised duration and changes reporting period

The works approval holder requested that time limited operations for trains 1 to 5 be able to continue under time limited operations, once a licence application for each train is submitted. In addition, it was requested to increase the period for the submission of each time limited operations report from 30 to 60 calendar days.

The works approval holder indicated that the reporting period was insufficient time to complete all reporting requirements, and that continued time limited operations was required whilst the department assessed submitted licence applications.

3. Consultation

The works approval holder was provided with the draft Amendment Report on 20 September 2024. Comments received from the works approval holder on 9 October 2024 have been considered by the delegated officer as detailed in Appendix 1. On 9 October 2024 the works approval holder waived the comment period.

4. Decision

The delegated officer determined to grant the following amendments as they are administrative in nature and will not alter the emission profile or assessed risks associated with the emissions from the premises.

Change of premises legal description

Corrections to the legal description are administrative and are considered a typographical error. No change to the boundary of the premises will occur because of this change.

Extension of works approval expiry date

The extension of the works approval expiry date to 15 November 2030, is administrative and acknowledges the changes to the works approval holder's business construction plan.

Update of descriptive wording in works approval and premises map

Changes to descriptive wording and updated premises map are administrative and do not change the initial risk assessment for emissions or intent.

Changes to calciner stack height and air emission sampling runs

Changes to the calciner stack height was determined to be reasonable and there would be no change to emissions. The delegated officer will adjust the stack height wording from exact height to a minimum height to accommodate higher calciner vent stack heights in trains 3, 4 and 5.

The delegated officer considered that the practicality of undertaking two consecutive air emission sample runs on the same day could be unfeasible whilst undertaking environmental commissioning. Noting that during environmental commissioning it may not be feasible to operate the plant for a full day under normal operating conditions. The delegated officer determined that it would be reasonable to allow duplicate sample runs to occur on the same day and/or the next available day.

The delegated officer has determined to partially grant the following amendments.

Registered business address

The delegated notes that the works approval holder has requested the registered address to be changed to the principal place of business. Only the registered office address that is listed on the Australian Securities and Investment Commission (ASIC) extract can be listed as the registered address. It is noted that this has changed and will be updated to Mills Oakley Level 7, 135-151 Clarence Street, Sydney NSW 2000.

Environmental commissioning authorised duration and changes to reporting period

The delegated officer considered the following:

- that train 2 is fully constructed and partially commissioned and train 3 is partially constructed, with both under care and maintenance, and with an unknown timeframe for recommencement;
- trains 4 and 5 have not been constructed with an unknown time frame for start of construction;
- that there is an amendment precedence for train 1 environmental commissioning extension issued on 9 June 2023;
- that the applicant has proposed a works approval extension until 15 November 2030, and
- that changes to commissioning will not alter the emission profile or assessed risks associated with the emissions from the premises.

The delegated officer has **determined to refuse to grant**:

- changing the authorised duration for trains 3, 4 and 5 from 365 calendar days in aggregate to 365 aggregate calendar days, and
- changing environmental commissioning sampling frequency from 180 to 365 aggregate calendar days.

The Guide to Licensing (DWER 2019) outlines that works approval holders must provide indicative timeframes in the amendment application so that the department is able to properly assess what is proposed and make appropriate provisions in the works approval. The department cannot extend environmental commissioning timelines without detail of timeline rescheduling for construction and care and maintenance for trains 3, 4 and 5. The delegated officer can also not authorise environmental commissioning timeframes that may exceed the expiry date of the works approval. Once trains 3, 4 and 5 are under construction a works approval amendment may be sought to ensure appropriate commissioning periods are sought in line with the works approval expiry.

The delegated officer has **determined to grant**:

- restarting authorised duration for 365 calendar days in aggregate for train 2 once written notification for the recommissioning of train 2 is received by the CEO, and
- starting on the 15 November 2024, authorise 180 aggregate calendar days for the sampling frequency for environmental commissioning for processing train 2.

Timeframe extensions are considered acceptable for train 2 on the basis, that it will not alter the emission profile or assessed risks associated with the emissions from the premises and will allow for emission testing to be undertaken when the train is operating at a steady state, which increases the likelihood of the collected samples being representative for ongoing emissions.

The delegated officer has determined to change the reporting period for the environmental commissioning from 30 to 60 calendar days and considers the change administrative in nature.

Noting that train 2 is under care and maintenance, the delegated officer has determined to impose a notification condition for the works approval holder to notify the department when train 2 restarts environmental commissioning. This control is administrative in nature and does not require further risk assessment.

Time limited operations authorised duration and changes reporting period

The delegated officer will update the time limited operations commencement and duration condition to allow the works approval holder to continue to operate under time limited operations once the works approval holder has submitted their licence application within the 180 calendar days prescribed for time limited operations under the departments Guide to licensing (DWER 2019). This will allow the works approval holder to operate infrastructure whilst the licence to operate is processing and under assessment.

The delegated officer determined it was appropriate to align the authorised duration for air emission sampling of all trains with the operational duration requirement including updating the air emission sampling frequency in line with the works approval intent of one sample event within a 180-calendar day period. The delegated officer has determined to increase air emission sampling during time limited operations to reflect one sampling event every 180 calendar days to reflect the change in duration.

The delegated officer has determined to change the reporting period for the time limited operations from 30 to 60 calendar days and considers this change to be administrative in nature.

5. Conclusion

Based on the assessment in this Amendment Report, the delegated officer has determined that an amended works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 1 below provides a summary of the proposed amendments and will act as a record of implemented changes. All proposed changes have been incorporated into the revised works approval as part of the amendment process.

Table 1: Summary of works approval amendments

Condition no.	Proposed amendments	
Cover page	Updated registered business address.	
Duration	Extended from 15/11/2025 to 15/11/2030	

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Condition no.	Proposed amendments	
Condition 1	Item 6 - ball mill wording updated	
	Item 7 – sodium hydroxide packed tower scrubber updated.	
Condition 7	New condition to provide written notification of train 2 restarts environmental commissioning.	
Condition 8 Table 3	Authorised duration for train 2 environmental commissioning restarted upon submission of condition 7	
	Item 14 - lithium hydroxide monohydrate packaging and storage operation requirement updated.	
	Item 15 - sodium sulphate anhydrous updated.	
Condition 11 Table 5	Monitoring of discharges to air frequency for environmental commissioning updated for train 2 starting 15 November.	
	Time limited operations sample frequency updated to one sample event every 180 calendar days.	
	Note 3 - updated to allow duplicate sample runs to occur on the next available days.	
Condition 14	Environmental commissioning reporting period changed to 60 calendar days.	
Condition 17	Updated to allow time limited operations to continue once licence application has been submitted.	
Condition 23	Time limited operations reporting period changed to 60 calendar days on completion of the time limited operations.	
Schedule 1 Figure 1	Premises map updated with recent aerial.	

References

- 1. Albemarle Lithium Pty Ltd, 2024, Application to Amendment Works Approval W6154/2018/1, Perth Western Australia
- 2. Department of Environment Regulation (DER) 2015, Guidance Statement: Setting Conditions, Perth, Western Australia.
- 3. Department of Water and Environmental Regulation (DWER) 2019, Guideline: Industry Regulation Guide to Licensing, Perth, Western Australia.
- 4. DWER 2023, Albemarle Kemerton Plant Works Approval W6154/2018/1, issued 9 June 2023, Perth Western Australia
- 5. DWER 2023, Albemarle Kemerton Plant Amendment Report for Works Approval W6154/2018/1, issued 9 June 2023, Perth Western Australia

Appendix 1: Summary of works approval holder's comments on draft amendment

Condition	Summary of works approval holder's comment	Department's response
Infrastructure operation, condition 8 Table 3, Item 16.	The works approval holder indicated that the wording "wastewater from the RO plant must be discharged to brine" is a typo and can be removed.	The delegated officer notes the works approvals comments but has not provided details of demonstrating the wording and operational requirement condition is a typo. The operational requirement will remain.
Infrastructure operation, condition 8 Table 3 Authorised duration.	The works approval holder indicated that the frequency wording is inconsistent and if they have the same intent, could they be worded the same for both Tables 3 and 5 for environmental commissioning.	The delegated officer notes this and clarifies that the wording is different for each of Tables 3 and 5, as they have different intents. Table 3 regards the operational period of the infrastructure and allows for 365 calendar days in aggregate for the operation of the infrastructure under environmental commissioning. Whilst Table 5 refers to monitoring of discharges and allows only 180 aggregate calendar days for environmental commissioning (this is adding the days that discharges occur, up to a total of 180 days).