



Application for works approval amendment

Division 3 Part V of the *Environmental Protection Act 1986*

Works approval number	W6499/2021/1
Works approval holder	Covalent Lithium Pty Ltd
ACN	70 623 090 139
DWER file number	DER2020/000568
Premises	Covalent Lithium Hydroxide Refinery 15 Mason Road KWINANA WA 6966 Legal description – Lot 15 on Diagram 74883
Date of report	9 May 2022
Status of report	Final

1. Decision summary

The delegated officer has determined to make amendments to works approval W6499/2021/1. The amendments are administrative in nature therefore they do not alter the risk profile of the premises, providing those activities, emissions and receptor as stated in existing approvals remain unchanged.

This report documents the amendments made pursuant to section 59 and 59(B) of the *Environmental Protection Act 1986* (EP Act).

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

Works approval W6499/2021/1 (W6499) is held by Covalent Lithium Pty Ltd (works approval holder) for its proposed lithium hydroxide refinery on Mason Rd, Kwinana (the premises).

On 10 February 2022, the works approval holder submitted an application to the department to amend the works approval. Including, modifying the groundwater sampling parameters during the construction, commissioning, and time limited operations, and to seek a further extension to the drilling of monitoring bores within the premises.

The works approval holder seeks to change the groundwater sampling parameters, specifically the removal of polyfluoroalkyl substances (PFAS) and per-fluorinated compounds suite; methylene blue active substances (MBAS); dioxins/furans compounds (and group total suite); organochlorine/organophosphorus pesticides; phenolics and phenolics – halogenated suites; polycyclic aromatic hydrocarbons (PAH) suites (standard 16 PAH suite); volatile organic compounds (VOCs) suite; metals (boron, barium, beryllium, cadmium, manganese, lead, mercury) and add additional metals uranium and fluoride and redox.

The works approval holder also seeks an extension to the timeframe specified for installation of the wells by a further 90 days. Covalent expects the wells to be installed by the end of July 2022, which is beyond the existing timeframe specified (240 days after the issue of the original works approval). An additional 90 days will allow for some redundancy following availability issues with the driller, resulting from COVID-19 delays.

2.3 DWER preliminary meeting

On the 3 February 2022, Covalent discussed recent groundwater data collected from the current operational bores. This meeting concluded the following:

- PFAS, per-fluorinated compounds suite, MBAS, dioxins/furans compounds (and group total suite), organochlorine/organophosphorus pesticides, phenolics/phenolics – halogenated suites, polycyclic aromatic hydrocarbons (PAH) suites (standard 16 PAH suite), volatile organic compounds (VOCs) suite, and metals (boron, barium, beryllium, cadmium, manganese, lead, mercury) were either not required based on submitted sampling data or should only be considered if dewatering occurred.

This was based on five months of sampling data that was provided to DWER where many analytes were below the detection limit and/or applicable guideline values. It was agreed that phenols and chlorinated hydrocarbons, PAH, total recoverable hydrocarbons (TRH) and benzene/toluene/ethylbenzene/xylenes/naphthalene (BTEXN) were linked to the

contamination of groundwater from the adjacent site and are unlikely to be present underneath the premises, unless dewatering occurs;

- condition 5 of the existing works approval requires a dewatering management plan to be submitted, should dewatering of groundwater be required. This plan would consider the need to monitor PAH and phenols where trigger values for phenols could be set for additional monitoring of dioxins and furans that are linked to the groundwater contamination adjacent to the premises; and
- uranium and fluoride will be added to the groundwater sampling program as they are known residual metals from processing lithium pegmatites and provide better accuracy of process contamination.

3. Decision

The delegated officer notes the extensive parameters for groundwater monitoring relates predominantly to a contaminated groundwater plume known to occur adjacent to the premises and that five months of sampling have been undertaken where many analytes are below detection and applicable guidance values. The delegated officer accepts that unless groundwater at the premises is dewatered, the drawing of contaminated groundwater towards the premises is unlikely and does not require further monitoring.

This application considers the changes to analytical monitoring parameters to groundwater wells for the construction, commissioning, and time limited operations of the lithium refinery. In considering there are no changes to the previously assessed production capacity or infrastructure, the delegated officer considers there are no changes to the existing risk profile and therefore no risk assessment is required.

The delegated officer also considers a 90-day extension (330 days from issue of works approval) to the timeframe for installing the wells to be appropriate, given the circumstances with driller availability.

3.1 Consultation

The works approval holder was provided with drafts of the amended works approval and this report on 6 May 2022 and waived the consultation period with minor clarifications only.

4. Conclusion

The delegated officer has determined to amend the existing works approval, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

4.1 Summary of amendments

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

Table 1: Summary of works approval amendment

Condition	Proposed amendment
Condition 7 Table 2, Row 1	Timeframe amended to: Must be constructed, developed (purged), and determined to be operational by no later than 330 calendar days of the date of issue of this works approval.
Condition 8 Table 3	Remove sampling requirements for PFAS, MBAS, dioxins/furans, organochlorine/organophosphorus pesticides, phenolics and phenols-halogenated suites, PAH, VOCs, boron, barium, beryllium, cadmium, manganese, lead, mercury).

Condition	Proposed amendment
	Added fluoride, uranium and redox.
Condition 16 Table 7	Remove sampling requirements for PFAS, MBAS, dioxins/furans, organochlorine/organophosphorus pesticides, phenolics and phenols-halogenated suites, PAH, VOCs, boron, barium, beryllium, cadmium, manganese, lead, mercury). Added fluoride, uranium and redox.

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REGULATORY SERVICES

An officer delegated by the CEO under section 20 of the EP Act