Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Works Approval Amendment

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

Works Approval Number	W6919/2024/1
Works Approval Holder	Covalent Lithium Pty Ltd
ACN	623 090 139
File Number	DER2024/000078, APP-0032365
Premises	Earl Grey Lithium Project Marvel Loch-Forrestania Road MOUNT HOLLAND Legal description – Mining Tenement M77/1080 As defined by the Premises map in Schedule 1 of the Revised Works Approval
Date of Report	7 January 2026
Decision	Revised works approval granted

Alana Kidd

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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 W6919/2024/1 is held by Covalent Lithium Pty Ltd (works approval holder, Covalent) for the Earl Grey Lithium Project (the premises, EGLP), located at mining tenement M77/1080.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the construction and operation of the premises. As a result of this assessment, revised works approval W6919/2024/1 has been granted.

The revised works approval issued because of this amendment consolidates and supersedes the existing works approval previously granted in relation to the premises. The decision report for the 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 completing the assessment documented in this Amendment Report, 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 11 November 2025, the works approval holder submitted an application to the department to amend works approval W6919/2024/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Increase assessed design capacity from 500,000 tonnes per annum (tpa) to 700,000 tpa for category 6 - mine dewatering.
- New infrastructure, consisting of the installation of mechanical evaporators and associated pipelines, pumps and tanks to Condition1 Table1 and time limited operations in Condition 8 Table 2.
- Extension of time limited operational period for infrastructure (Condition 7(a)) from 5 January 2026 to 31 May 2026

Covalent has requested the installation of mechanical evaporators to assist with managing the saline water balance at the Earl Grey Lithium Project (EGLP). Updated projections of dewatering volumes indicate that the Earl Grey Gold Pit (EGGP) may reach its capacity by late 2026. This is due to current dewatering rates stabilising at approximately 21 litres per second (L/s), compared to the originally estimated 15 L/s. As a result, the EGGP is expected to reach its freeboard limit around late 2026. The excess saline water cannot be directed to the tailings storage facility (TSF) as fresh water is required for operations.

A further 5-month extension to time-limited operations to accommodate the infrastructure installation is required. Covalent is expected to apply for an amendment to licence L9326/2022/1 during time limited operations to include Category 6- mine dewatering and associated infrastructure.

2.2.1 Assessed dewatering design capacity

Covalent has requested an increase in maximum production capacity from 500,000 tpa to 700,000 tpa, based on the current sustained dewatering rate of 21 L/s. Previously, on 25 June 2025, Covalent was granted an amendment to construct pipelines and pumps to manage

anticipated groundwater inflows of 12–15 L/s (average 14 L/s) into the Earl Grey Lithium Pit (EGLP), with dewatered water directed to the EGGP. Covalent has since advised that the original estimate of 15 L/s was underestimated, and actual inflows average 21 L/s. The existing pipelines and pumps to transfer water from EGLP to the EGGP are adequately sized to handle this increased rate. Based on 21 L/s, Covalent estimates approximately 662,256 tpa will be dewatered.

2.2.2 Evaporator installation

Covalent proposed to install mechanical evaporators to support saline water balance management as part of the EGLP dewatering strategy. The evaporators will be positioned at the EGGP crest and spray water horizontally or at low angles into the EGGP void. The system is equipped with a weather station and Environment Management System (EMS) which will control the system based on weather conditions, in particular the wind direction and speed.

The high-water volume throughput requirement of the system (75 L/s) will be provided by extracting stored water from the EGGP using a specialised pump positioned on the EGGP pit crest. The estimated annual evaporation rate of the system is 43% or 32 L/s of the volume throughput. Saline water pumped during dewatering of the EGLP at a rate of approximately 21 L/s will be evaporated and the EGGP water level will be gradually reduced at the current dewatering rates.

The water level in EGGP is rising in accordance with the abstracted volumes with some loss to permeability and evaporation. Figure 1 illustrates the projected fill rate to capacity of EGGP based on the current dewatering rates and illustrates the impact of mechanical evaporation on the EGGP water level, modelled from September 2025 for 36 months. Figure 1 indicates that EGGP will reach capacity in September 2026.

Mechanical (Forced) Evaporation System

The proposed system uses proven mechanical equipment to enhance evaporation by spraying water through specialised nozzles into fine droplets, which are dispersed by a fan. Evaporation is influenced by ambient temperature, humidity, and droplet characteristics such as size and velocity. Droplets cool to wet-bulb temperature as they evaporate, forming a saturated vapour layer that accelerates heat transfer and evaporation. This process efficiently converts large volumes of liquid water into vapour, returning it to the atmosphere.

The proposed evaporator system includes two evaporator units with a combined capacity of 75 L/s (37 L/s each). The evaporators will receive a water supply taken from the EGGP pit via high-density polyethylene piping and pressurised to 10 bar by an electric pump. The system will operate automatically, controlled by a motor control centre (MCC) powered by a 650 kVA generator and integrated with an environmental management system and weather station to adjust operations based on weather conditions. Break tanks will be managed by a programmable logic controller (PLC) and a specialised pump, to maintain water levels and return overflow to the EGGP pit. On average, 43% of throughput is expected to evaporate annually, with seasonal variations. The system is non-critical to mining operations and serves to manage saline water levels in EGGP freeboard.

The equipment comes largely as pre-constructed modules and on-site construction activities will consist of earthworks, placement of equipment and connection of pipelines. This is expected to take approximately 2 - 4 weeks. Commissioning is anticipated to take less than a week and Covalent has not requested separate commissioning conditions.

To allow for construction of this infrastructure and application for transition of Category 6 dewatering activities to the EGLP licence L9326/2022/1, an extension to time limited operations is required.

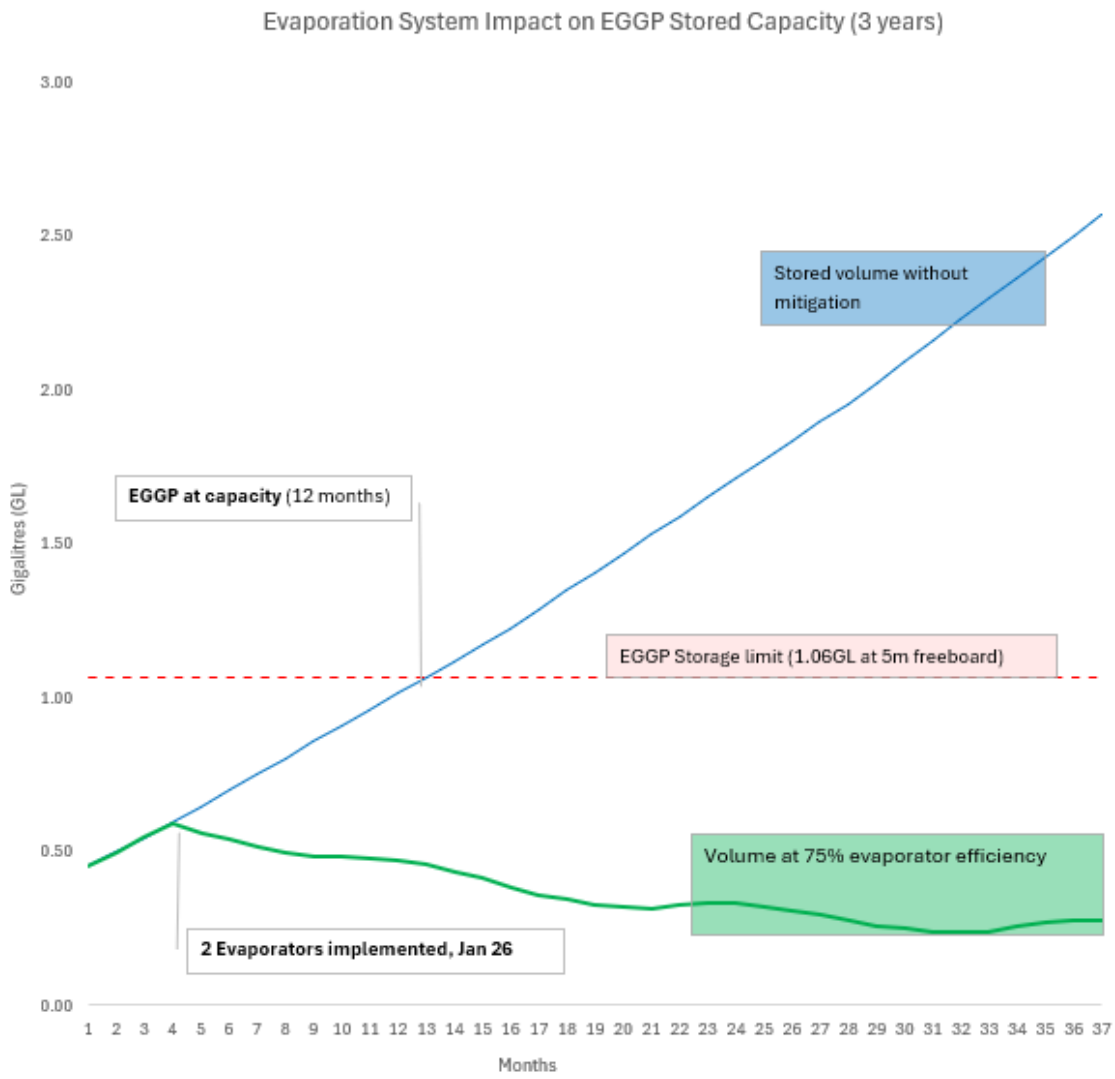

Figure 1: Projection of evaporation system on EGGP water level.

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this Amendment Report are detailed in Table 1 below. Table 1 also details the proposed control measures the works approval holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Works approval holder controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Vehicle movement Installation of evaporators and associated infrastructure	Air/windborne pathway	Existing works approval controls.
Time limited operations			
Hypersaline water from spills, leaks, ruptures and dewatering activities	Operation of evaporators and associated infrastructure.	Direct discharge to ground	Additional pipelines will be constructed using: •PE100 HDPE designed for the appropriate pressure (10 bar) with associated couplings. •Ex-pit pipelines will be constructed within a bunded area with any spillage directed to the EGGP •The safety bund in front of the pad will be constructed of permeable rock to allow drainage into EGGP. High wall pump to be controlled via programmable logic controller (PLC) to control low-low and high-high pump control to maintain tank water levels. The pad for the highwall pump will be constructed with approximate 2% gradient fall toward EGGP. 2x 50 kL break tanks, will have an overflow directed back into the EGGP pit. The break tanks will be fitted with a drainage line back into the EGGP. Evaporators will be placed at an approximate 2% gradient fall toward EGGP. The evaporator feed pump is equipped with a “low pressure high RPM” shut-off control in PLC to shut off the pump automatically in case of a rupture or leak in the piping systems. Inspection requirements of W6919/2024/1 will continue (daily visual inspections of the dewatering pipeline, weekly inspections of dewatering tanks, and weekly inspection of EGGP freeboard), with the addition of daily inspections of the mechanical evaporator system. A bund will be constructed on the western side of the system to contain any saline water in case of a major spill and to direct surface water away from the system. Any spills will be reported as internal environmental incidents and cleaned up immediately. All equipment will be capable of operating at 75

Emission	Sources	Potential pathways	Proposed controls
Construction			
		Impacts to adjacent vegetation and regeneration post January 2025 fire.	L/s rate.
Spray drift of hypersaline water			Evaporators will be equipped with a weather station which will ensure the system only operates in the desired conditions, in particular the wind direction and speed. The system will automatically stop, or fail to start up, if the weather station is defective as a failsafe measure. Cut off wind speed and direction for evaporators are: 13 m/s in a direction North = 0 degrees between 45 degrees and 135 degrees. Management measures to ensure spray drift does not impact vegetation regeneration include, the cut-off weather conditions are designed to ensure no spray drift. As a contingency, clearing has been completed for the next stage of the EGLP (MS1199/MP2) footprint, where rehabilitation topsoil has been recovered and stored. The system will be used at an elevation of 0º to the horizontal or low elevations to reduce the risk of overspray.
Chemical storage			6 kL diesel tank to be self-contained (bunded) in accordance with Australian Standard. Fuel pod installed on hard stand and spill trays used when refueling. Self-bunded fuel tank will be stored on compacted earth handstand.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the delegated officer has excluded employees, visitors and contractors of the works approval holder from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 2 below provides a summary of potential human and environmental receptors that may be impacted because of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental siting* (DWER 2020)).

Table 2: Sensitive environmental receptors and distance from prescribed activity

Environmental receptors	Distance from prescribed activity
Groundwater	There are no registered bores within the site; however, 12 registered bores within approximately 4 and 10 km from the southern boundary of Works Approval: W6460/2020/1. Two registered bores within approximately 6 and 10 km from the north-eastern boundary of the site (360 Environmental, 2020). Based on previous investigations, depth to the water table ranged from 58 metres below ground level (mbgl) to 70 mbgl. Groundwater is saline to hypersaline with total dissolved

	solids (TDS) levels varying between 7,640 mg/L and 119,000 mg/L. (360 Environmental, 2020).
Surface water	No major surface water features within 5 km of the site. The only notable surface water feature is a constructed ephemeral drainage line that starts at the northwest tip of the airstrip and runs northeast past the processing plant area. Apart from this constructed drainage line, the Project area does not intersect any other identifiable drainage lines or creeks, with runoff generally occurring as sheetwash in a northeasterly direction.
Threatened and Priority fauna	Several significant conservation fauna species have been found recently (last 5 years) at the site. *Leipoa ocellate* (Malleefowl) and *Dasyurus geoffroii* (Chuditch) have been sited within the premises boundary.
Threatened and Priority flora	Classified threatened (under the WA Biodiversity Conservation Act 2016) and vulnerable (under the EPBC Act) species *Banksia sphaerocarpa var. dolichostyla* are reported to be present at the site. *It is also noted the site is regenerating from an intense fire in January 2025 (35,000ha).*
Priority Ecological Communities (PEC)	The prescribed premises lies within the Ironcap Hills vegetation assemblages (Mt Holland, Middle, North and South Ironcap Hills, Digger Rock and Hatter Hill) (greenstone ranges) which is Priority 3 PEC.

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and considers potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the works approval holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the delegated officer considers the works approval holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the works approval holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

The revised works approval W6919/2024/1 that accompanies this Amendment Report authorises construction and time-limited operations. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence amendment is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises i.e. dewatering activities. A risk assessment for the operational phase has been included in this Amendment Report, however licence conditions will not be finalised until the department assesses the licence application.

Table 3. Risk assessment of potential emissions and discharges from the premises during construction and operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Works approval holder's controls sufficient?	Conditions[2] of works approval	Justification for additional regulatory controls/ DWER comments
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Works approval holder's controls**				
Construction								
Placement of pipelines, pumps, tanks, evaporators, bunds and associated infrastructure. including vehicle movements (reversing beepers).	Dust	Air/windborne pathway causing impacts to health and amenity	Surrounding threatened flora and fauna.	As per works approval W6919/2024/1, use of water carts to manage dust lift-off and areas of use. Refer to Section 3.1.1	Mimimal impacts onsite. C = Slight The risk event will probably not occur in most circumstances. L = Unlikely **Low Risk**	Y	Condition 2, 3	No additional regulatory controls, existing works approval controls will manage the risk.
Time-limited-operations operations								
Operation of evaporators and associated infrastructure.	Hypersaline water from spills, leaks, ruptures and dewatering activities	Overland runoff causing contamination of soils (salt crusting), and ecosystem disturbance to surrounding vegetation and fauna.	Surrounding soil. Threatened fauna and priority flora within and near the project area including *Banksia sphaerocarpa var. dolichostyla* are reported to be present at the site. The site is also naturally regenerating following an intense fire in January 2025.	The pipeline and pump system has a capacity of 75 L/s and includes safety and environmental controls. Spills are cleaned up and reported. An evaporator feed pump features a low-pressure/high-RPM shut-off to prevent rupture or leaks. Pipelines are PE100 HDPE rated for 10 bar pressure and constructed within bunded areas, directing any spillage to the EGGP. A permeable rock safety bund in front of the pad allows drainage to the EGGP. The high-wall pump is PLC-controlled with low-low and high-high level settings to maintain tank water levels, and its pad is built with a 2% gradient toward the EGGP. Two 50 kL break tanks have overflow and drainage lines returning water to the EGGP pit. Refer to Section 3.1.1	Low level onsite impacts, minimal offsite impacts. C = Minor The risk event will probably not occur in most circumstances. L = Unlikely **Medium Risk**	N	Condition 1, 8 **Condition 12**	The delegated officer considered the applicants controls, that the previous projected groundwater rate of EGLP increased from an average of 14 to 21 L/s, the associated increased dewatering levels into the EGGP, the existing conditions within the works approval, the surrounding environment and determined that the risk to environmental receptors to be medium. The delegated officer determined that the applicants' controls were insufficient to control the risk and additional regulatory controls were conditioned. They are: • Water balance for Earl Grey Gold Pit includes evaporation calculations from mechanical evaporator use. • Revised groundwater modelling for groundwater inclusion into the Earl Grey Lithium Pit. • Maximum amount of 700,000 tpa of dewatering from the EDLP to the EGGP. The delegated officer considered the applicants controls assisted in managing the risk and were conditioned within the works approval. The Delegated Officer also noted that Ministerial Statement1199 contains conditions for the protection of flora and vegetation and fauna within and adjacent to the site.
	Spray drift of hypersaline water	Air/windborne pathway causing impacts to amenity, contamination of soil and ecosystem disturbance to surrounding vegetation.		Automated weather station with shut of mechanisms, mechanical evaporators used at elevation of 0 degrees, daily inspections. Refer to Section 3.1.1	Mid-level onsite impacts, low level offsite impacts. C = Moderate The risk event could occur at some time L = Possible **Medium Risk**	N	Condition 1, 8 **Condition 12**	
	Chemical storage including hydrocarbons	Overland runoff potentially causing contamination of soils, and ecosystem disturbance.		Tank self bunded to Australian standards, fuel pod on hardstand and spill trays used when refueling. Refer to Section 3.1.1	Low level onsite impacts, minimal offsite impacts. C = Minor The risk event will probably not occur in most circumstances. L = Unlikely **Medium Risk**	Y	Condition 1, 8	The delegated officer considered the applicants controls, the surrounding environment and determined that the risk to environmental receptors to be medium. The delegated officer determined that the applicants' controls were sufficient to control the risk and were conditioned within the works approval.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed works approval holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Department of Mines, Petroleum and Exploration (DMPE) advised of proposal 8 December 2025.	DMPE replied on 15 December 2025 indicating that DEPE is currently assessing a Mining Development and Closure Proposal for the use of evaporators, advising that that they do not consider there would be any problematic issues with their use.	The delegated officer notes this information.
Works approval holder was provided with draft amendment on 10 December 2025	The works approval holder responded on 16 December 2025. Refer to Appendix 1	Refer to Appendix 1

5. Decision

The delegated officer has determined to grant an amendment permitting the construction and time-limited operation of additional dewatering evaporation infrastructure within the premises. This decision is based on the assessment that the proposed evaporators and associated infrastructure will not alter the emission profile or increase the assessed risk of emissions from the premises.

The applicant's request to increase the dewatering design capacity to 700,000 tpa has been granted, subject to the requirement that water balance reporting is updated within the time-limited operations report. This report must identify revised groundwater and surface water components of the EELP and evaluate the effectiveness of the evaporators, as well as confirm that the EGGP has sufficient capacity to store and manage EELP dewatering.

The delegated officer advises that this updated water balance must be submitted with any future licence amendment for Licence L9326/2022/1 to incorporate dewatering activities.

Additionally, the delegated officer has made administrative updates to numbering and extended the time-limited operations period until 31 May 2026 to accommodate the construction of the additional infrastructure

6. Conclusion

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

6.1 Summary of amendments

Table 5 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the revised works approval as part of the amendment process.

Table 5: Summary of works approval amendments

Condition no.	Proposed amendments
Front page	Assed design capacity changed from 500,000 to 700,000 tpa.

Works approval history	This amendment added.
Condition 1 Table 1	Installation and construction conditions for the evaporators, pipelines, pumps, tanks, weather station and associated infrastructure. Numbering updated in table.
Condition 7	Extension of time limited operations from 5 January to 31 May 2026
Condition 8 Table 2	Time limited operations – operational requirements for the evaporators, pipelines, pumps, tanks, weather station and associated infrastructure. Numbering updated in table.
Condition 12	Update of time limited operations reporting requirements.
Schedule 1 Figure 4	Evaporator and associated infrastructure layout map.

References

1. Covalent Lithium Pty Ltd, 2025, Application and supporting documents for a works approval amendment - November 2025, 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) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
5. DWER 2025, Covalent Lithium Pty Ltd, Works approval W6919/2024/1 issued 25 June 2025, Perth, Western Australia
6. DWER 2025, Covalent Lithium Pty Ltd, Amendment Report for works approval W6919/2024/1 issued 25 June 2025, Perth, Western Australia

Appendix 1: Summary of works approval holder's comments on risk assessment and draft conditions

Condition	Summary of works approval holder's comment	Department's response
Amendment Report		
Section 3.1.1 Table 1 works approval holder's controls	The works approval holder provided additional information on cut off for wind speed and direction and vegetation management measures for the evaporators, and diesel hardstand.	This information has been updated into the Amendment Report.
Works Approval		
Table 1 Design and construction requirements	The works approval holder requested the following changes for Item 6. • Item 6a – For auditability they request that mechanical evaporators are installed at an elevation less than 30 degrees rather than at 0 degrees. • Item 6b- For clarity change from all pipelines to all pipelines from the evaporator feed pump to the evaporators are constructed with PE 100 HDPE rated for 10 bar pressure. • Item 6d – Change the term 'the pad' to 'each pad'. • Item 6h – include the phrase 'except drain lines', as drain lines are the lines from the tanks and is the system in place to empty the system if Covalent shuts down (e.g. maintenance) and drain into the EGGP. • Item 6 c, d, g - minor typos.	The delegated officer considered all the changes to be reasonable, auditable and would not change the risk profile and has been updated within the works approval.
Table 2 Infrastructure and equipment requirements during time limited operations.	The works approval holder requested that Item 8a is changed from 'must be used' to 'be available' during refuelling.	The delegated officer reviewed the proposed change and considered that the incidental use of refuelling trays would remove the audible component of the condition and the associated mechanism used to control the risk. No changes were made.