



Application for Licence Amendment

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

Licence Number	L8249/2008/3
Licence Holder	Focus Operations Pty Ltd
ACN	115 821 255
File Number	2011/005901-2~4
Premises	Three Mile Hill COOLGARDIE WA 6429 Legal description – Mining tenements M15/1114, M15/154, M15/645, M15/646, M15/660, M15/958, M15/1294, M15/1432, M15/1788 and L15/161 As defined by the Premises maps attached to the Revised Licence
Date of Report	3 November 2023
Decision	Revised licence granted

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A/MANAGER RESOURCE INDUSTRIES

REGULATORY SERVICES

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

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1. Decision summary

Licence L8249/2008/3 is held by Focus Operations Pty Ltd (Licence Holder) for the Three Mile Hill Gold Project (the Premises), located in Coolgardie, WA.

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 operation of the Premises. As a result of this assessment, Revised Licence L8249/2008/3 has been granted.

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 22 August 2023, the Licence Holder submitted an application to the department to amend Licence L8249/2008/3 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- To allow the reprocessing of historic tailings at the Three Mile Hill Processing Plant from the Bonnievale Underground Project

This amendment is limited only to changes to Category 5 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Categories 6 and 89 have been requested by the Licence Holder.

Table 1 below outlines the proposed changes to the existing Licence

Table 1: Proposed throughput capacity changes

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
5	1.1 million tonnes per annum	1.5 million tonnes per annum	An increase to throughput is being proposed for processing amount.

The site has been in care and maintenance since 2013. In mid-2023, Focus resumed mining at the Greenfields open cut mine and processing at the Three Mile Hill (TMH) processing plant. Focus sources ore from various open cut and underground approved project around the Coolgardie Gold Operations tenement package. A separate licence amendment has been assessed for a raise to tailings storage facility (TSF) stage 3. This amendment is still under assessment with the Department.

The Bonnivale tenements are held by Focus Minerals, however, they are not located within the Three Mile Hill prescribed premises. This amendment will assess the receipt of the tailings along with the processing of them through the TMH processing plant. The jurisdiction for the transportation of the tailings is with Main Roads WA.

2.3 Part IV of the EP Act

Focus currently has a Ministerial Statement approval for 1.1 million tonnes processing per annual period (MS 246). DWER notes that L8249/2008/3 has a category 5 throughput of 1.5

million tonnes per annum which is inconsistent with the Ministerial Statement. This was issued in 2013. Focus intends on withdrawing the Ministerial Statement after discussions with the EPA under section 47A of the Act.

This licence amendment only assesses the reprocessing of Bonnievale historic tailings as the higher throughput has been approved on the licence since 2013.

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 operation which have been considered in this Amendment Report are detailed below. Table 2 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	Vehicle movements from Bonnievale to Three Mile Hill; Lift off from tailings stockpiles	Air/windborne pathway Spillage from transport	Dust suppression via water truck as necessary Vehicle and mobile equipment limited to designated tracks and roads Vehicles required to comply with speed limits around site.
Contaminated stormwater	Stockpiling of historic tailings prior to reprocessing through TMH plant	Overland runoff	To be managed in accordance with Focus EMS which includes the following controls relating to stockpiles and haul roads: <i>-Protection bunds and diversion channels will be constructed to prevent flooding of the pits, process areas, stockpiles, or other mine infrastructure;</i> <i>-Culverts and/or floodway's will be installed where mining haul roads cross watercourses</i> The tailings will be stored on a designated area on the ROM pad for the shortest possible timeframe before being processed through the TMH processing plant. Surface water is diverted away from the ROM pad, no impacts to the environment are expected from the storage of tailings.

Emission	Sources	Potential pathways	Proposed controls
			Managed under MS 75 condition 6 'The proponent shall ensure that run-off from the site does not have any adverse effects on local drainage systems'.
Bonnievale Tailings with elevated levels of mercury	Seepage from tailings through base of TSF	Infiltration through base of facility	<p>A multi element analysis was carried out on samples from each of the Bonnievale historic tailings stockpiles. The results showed that:</p> <ul style="list-style-type: none"> - There are very similar background elements present in the various Bonnievale stockpiles compared to material characterization results for other local source ore: - Arsenic, chromium, lead and nickel (which would present cause for concern if high concentrations detected) were shown to have consistently similar levels to those from other projects; - Mercury levels were found to be elevated. However, this is due to the historic processing of gold. - Based on analysis of the assay data (comparison of stockpiles to recent ore processed), the processing of Bonnievale tailings is not expected to result in material difference in composition of tailings stored in TMH TSF. - 180 000 tonnes of stockpile material will be encapsulated with addition 2.6 Mt of tailings mined from local sources. This will significantly dilute any influence from Bonnievale historic tailings. <p>The TSF is currently managed through several licence conditions, including seepage recovery, inspections of infrastructure and groundwater monitoring.</p>

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 3 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)).

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Great Eastern Highway	Approximately 130m west of the TMH TSF northern foundation platform.
Coolgardie Townsite	Approximately 4 km west of the Premises
Environmental receptors	Distance from prescribed activity
Underlying groundwater (non-potable purposes)	<p>The TMH processing area and TSF is located within the Goldfields Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i>.</p> <p>Groundwater is hypersaline with 14,000 to 35,000 total dissolved solids (TDS) (DWER Geocortex). Groundwater generally flows in an easterly direction (Focus 2022).</p> <p>The TMH TSF lies within the Roe Paleo drainage system. The closest major aquifer is 2.5km to the south-east and is a Wollubar sandstone occurring in the Hannan Paleochannel.</p> <p>Groundwater quality results from the most recent monitoring period (July 2021 to June 2022) indicate groundwater around the TMH TSF ranges from saline to brine (12,000 mg/L in TMHWB06 to 78,000 mg/L in TMHWMB08) and has pH ranging from 6.8 – 7.10. Historically Lindsay’s pit water quality is saline with a TDS of 37,000mg/L and a pH of 7.1 (from application)</p> <p>Standing water levels (mbgl) results from the nearest monitoring bore to the proposed foundation platform (TMHWMB06) indicate groundwater depth in the vicinity ranges from 11.11-11.70 mbgl and TDS at this bore ranged from 12,000 to 15,000 mg/l.</p> <p>Historic groundwater trends indicate that groundwater levels have been steadily decreasing at all monitoring locations. Relatively higher groundwater elevations (>400 mAHD) are consistently recorded in the northwest (TMHWB05 and TMHWB06), with lower values (<390 mAHD) in the west (TMHWMB04) and southwest (THWMB11).</p> <p>Groundwater elevation contours from May 2021 indicate that flow directions typically follow the topography, which gently falls from north to south (420 to 410 mAHD).</p>
Native vegetation	<p>The survey area is dominated by Eucalypt Mallee Woodlands and Open Woodlands with small areas of Mallee Shrublands and one Isolated Eremophila Heathland (Terratree 2019).</p> <p>Scattered vegetation located west of Great Eastern Highway approximately 160m of the proposed foundation platform and immediately surrounding Lindsays Pit and Bayleys turkey nest.</p>
Malleefowl,- <i>Leipoa ocellata</i> (Threatened – Vulnerable at a State level and Vulnerable at a Federal level)	<p>Western Ecological undertook a desktop assessment and field survey in 2020, which identified four fauna species of conservation significance. Malleefowl is considered as Possibly occurring and three are considered unlikely to occur in the survey area. No evidence of significant fauna species were observed during the field survey. The proposed works area does not contain potential Malleefowl habitat (Refer Figure 4 below).</p>

	<p>Malleefowl have previously been sighted near the premises (DWER Geocortex):</p> <p>Malleefowl, Leipoa – sightings approximately 1.5km north-north-west and 2km north-north-east of CNX Pit. Sightings range from 2013 to 2016.</p>
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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 takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete they have not been considered further in the risk assessment.

Where the Licence 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 Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

The Revised Licence L8249/2008/3 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. reprocessing of Bonnievale historic tailings.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 4. Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Operation								
Vehicle movement with historic tailings entering prescribed premises Stockpiling of tailings prior to processing	Dust and spillage	Air/windborne pathway causing impacts to health and amenity Poor visibility for driving, smothering of vegetation and decline in vegetation quality	Haul roadside vegetation/fauna Public driving on Great Eastern Hwy – 130m west of premises boundary	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	Existing licence conditions 5 and 6 – water cart and no dust to cross premises boundary	The transport of historic tailings is not within DWER's jurisdiction for Part V licencing, as the roads are not within the prescribed premises boundary. However, the licence holder is reminded of their obligations to report any spills or emissions that may occur during transportation under section 72 of the Act. The Delegated Officer is satisfied existing licence conditions are adequate for managing dust within the prescribed premises.
	Sediment laden stormwater	Overland runoff from stockpiles causing erosion and change in flow regimes and impacts to surface water quality. Flora and fauna stress/death	Seasonal minor creek 500m north-east Threatened fauna (closest 240m south-east)	Refer to Section 3.1	C = Minor L = Rare Low Risk	Y	Existing licence condition 4 – management and treatment of stormwater.	N/A
Deposition of reprocessed Bonnievale tailings into the TMH TSF	Acidic, saline, metalliferous tailings. Decant water	Ineffective low permeability barriers resulting in excess seepage of	Proclaimed Goldfields Groundwater Area ~ 11mbgl	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Y	<i>Existing licence conditions:</i> 12 – seepage collection	DWER internal experts have advised that over 90% of the mercury in the original tailings from the Bonnievale site will

Licence: L8249/2008/3

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions ² of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
	including hazardous processing chemicals such as cyanide The historic tailings also contain a significant level of mercury due to the process of gold removal from that time.	contaminated water from TSF. This could lead to groundwater contamination and mounding, resulting in vegetation stress or death and adverse impacts to fauna.	Surrounding vegetation and fauna Nearby surface water				and recovery 28 – monitoring of ambient groundwater quality 29 and 30 – Groundwater Recovery Plan	pass through the treatment process and be discharged in slurries to the TMH TSF. However, the research also indicates that around half of elemental mercury will be converted to ionic species, which means the risk of mercury vapour emissions taking place in the reprocessed tailings would be lower than in the original tailings. It's therefore not considered the reprocessed tailings will increase environmental risk. Current groundwater monitoring is deemed sufficient with no extra monitoring required.

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

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

4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal – 18 September 2023	DMIRS replied on 3 October 2023, stating that their assessment is coming to a close, with a few administrative errors in their Mining Proposal to correct.	Noted.
Licence Holder was provided with draft amendment on 1 November 2023	Refer to Appendix 1	Refer to Appendix 1

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 6 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 6: Summary of licence amendments

Condition no.	Proposed amendments
7	Condition added for the acceptance of Bonnievale Historic tailings to the premises and for processing in the Three Mile Hill processing plant
Condition and table numbers	Condition and table numbers all updated due to insertion of new condition 7

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

Appendix 1: Summary of Licence Holder's comments on risk assessment and draft conditions

Condition	Summary of Licence Holder's comment	Department's response
Date of issue	The Licence Holder requested the date of issue is updated.	The date of issue of the L8249/2008/2 is 27 September 2013. The draft had an incorrect date of 22 September 2022. This has been corrected now. The date of amendment will be added below this, so it will show both the original issue date and the latest amendment date.
Amendment Report section	The Licence Holder was asked to provide some detail on their surface water EMS during their comment period. They have provided sufficient information.	The information has been added into the Amendment Report to support the risk rating for surface water contamination.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
Application type				
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:		
		Relevant works approval number:	N/A	<input type="checkbox"/>
Date application received	22 August 2023			
Applicant and Premises details				
Applicant name/s (full legal name/s)	Focus Operations Pty Ltd			
Premises name	Three Mile Hill			
Premises location	Mining tenements M15/595 and M15/277			
Local Government Authority	Shire of Coolgardie			
Application documents				
HPCM file reference number:	2011/005901-2~2			
Key application documents (additional to application form):	Coolgardie Soil Resource Assessment AquaGeo Focus Minerals Coolgardie Groundwater Modelling 2021 Coolgardie Biological Surveys_Rev2 Focus_Minerals_Lv1_Assessment Western Ecological_KHTR_Basic Fauna Survey_Final_Report CGO_Bonnievale Stockpiles_L8249_2008_3 Amendment_FINAL			
Scope of application/assessment				
Summary of proposed activities or changes to existing operations.	<p>Licence amendment</p> <p>To reprocess historic Bonnievale tailings at the Three Mile Hill processing plant and increase the throughput from 1.1 Mtpa to 1.5 Mtpa.</p> <p>The site has been in care and maintenance since 2013. In mid-2023, Focus resumed mining at the Greenfields open cut mine and processing at the Three Mile Hill (TMH) processing plant. There is a current amendment under assessment for the raise of the TMH tailings storage facility (TSF) – stage 3. There is currently an RFI with Focus for this assessment, requiring additional sampling of tailings to ensure assumptions about physical and chemical properties of the materials are correct.</p>			

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
Category 5: processing of ore	1.5 Mtpa	1.5 Mtpa

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Referral decision No: Under assessment – the applicant has stated they are in the process of updating the Ministerial Statement to increase throughput to 1.5 Mtpa Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: MS 75 and MS 246 Ministerial Statement 75 was approved on 25 August 1989 for proponent Goldfan Limited (previous owner of the site) to construct and operate the THM Gold Project. The MS applies to a 283.1534 ha area and includes seven conditions. Ministerial Statement 246 was approved on 14 April 1992 for proponent Goldfan Limited to increase throughput at the site from 800,000 tonnes of gold ore per annum to 1.1 million tonnes per annum. EPA Report No: 394 and 593
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Mining lease / tenement <input checked="" type="checkbox"/> Expiry: Taken from current licence amendment application.
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/>	Approval: Mining Proposal still under assessment Expiry date: If N/A explain why?

Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CPS No: Approved CPS9513/1 - authorises no more than 60ha of clearing on Mining Lease 15/154, Mining Lease 15/645 and Mining Lease 15/1432 Proposing 9.8 ha of clearing around Bonnievale stockpiles., under DMIRS tenement 10ha of clearing per tenement per year.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Application reference No: N/A Licence/permit No: N/A
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Application reference No: Licence/permit No: GWL160936 Premises located within the Proclaimed Goldfields Groundwater Area.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Type: Proclaimed Goldfields Groundwater Area. Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Regional office: Goldfields
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Name: N/A Priority: N/A Are the proposed activities/ landuse compatible with the PDWSA (refer to WQPN 25)? Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Mining Act 1978 Aboriginal Cultural Heritage Act 2021 Dangerous Goods Safety Act 2004
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Classification: Contamination - remediated required (C-RR) Three Mile Hill Tenement Number M15/645 Date of classification: 4 Sep 2018 Possibly contaminated - investigation required site (classified Feb 18, 2015) approximately 110m from the Bayleys Turkey Nest.</p>
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