



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Focus Operations Pty Ltd

Licence: L8249/2008/2

Registered office: Level 2
159 Adelaide Terrace
EAST PERTH WA 6004

ACN: 115 821 255

Premises address: Three Mile Hill Gold Project
Mining Tenements M15/114, M15/660, M15/645, M15/646, M15/958,
M15/1294, M15/1432 and part M15/154.
COOLGARDIE WA 6429
As depicted in Schedule 1

Issue date: Friday, 27 September 2013

Commencement date: Sunday, 29 September 2013

Expiry date: Sunday, 28 September 2018

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by:

Fiona Sharpe
Licensing Officer

Decision Document authorised by:

Danielle Eyre
Manager Licensing Resource (South)



Contents

| | |
|--|----|
| Decision Document | 1 |
| Contents | 2 |
| 1 Purpose of this Document | 2 |
| 2 Administrative summary | 3 |
| 3 Executive summary of proposal and assessment | 4 |
| 4 Decision table | 5 |
| 5 Advertisement and consultation table | 8 |
| 6 Risk Assessment | 9 |
| Appendix A | 10 |

1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

Works approval and licence conditions

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

Standard conditions (SC)

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

Optional standard conditions (OSC)

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary, and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions is justified in Section 4 of this document.

Non standard conditions (NSC)

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in Section 4.



2 Administrative summary

| Administrative details | | |
|--|--|---|
| Application type | Works Approval <input type="checkbox"/> | |
| | New Licence <input type="checkbox"/> | |
| | Licence amendment <input checked="" type="checkbox"/> | |
| | Works Approval amendment <input type="checkbox"/> | |
| Activities that cause the premises to become prescribed premises | Category number(s) | Assessed design capacity |
| | 5 | 1.5 million tonnes per year |
| | 6 | 475,000 kL/year |
| | 89 | 22 tonnes per year |
| Application verified | Date: 8 August 2013 | |
| Application fee paid | Date: 16 September 2013 | |
| Works Approval has been complied with | Yes <input type="checkbox"/> | No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Compliance Certificate received | Yes <input type="checkbox"/> | No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Commercial-in-confidence claim | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| Commercial-in-confidence claim outcome | | |
| Is the proposal a Major Resource Project? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| | | Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/> |
| Is the proposal subject to Ministerial Conditions? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| | | Ministerial statement No: EPA Report No: |
| Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| | Department of Water consulted Yes <input type="checkbox"/> No <input type="checkbox"/> | |
| Is the Premises within an Environmental Protection Policy (EPP) Area | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| If Yes include details of which EPP(s) here. | | |
| Is the Premises subject to any EPP requirements? | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> |
| If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP. | | |



3 Executive summary of proposal and assessment

The Three Mile Hill project is part of Focus Minerals Limited's Coolgardie Gold Operation. It is located approximately five kilometres south of Coolgardie and forty kilometres south west of Kalgoorlie. The processing plant was constructed in 1990 to process ore from the surrounding underground and open pit mines. Focus Operations Pty Ltd (Focus) took full ownership of the project in 2008 with operation of the Three Mile Hill treatment plant commencing on 24 December 2009. Focus placed the site under care and maintenance in July 2013.

The Coolgardie Gold Project extends from approximately 10 kilometres north of the Coolgardie township to as far south as the Nepean prospect and consists of over 100 mining leases, totalling approximately 9 600 hectares. The majority of mine infrastructures, including a processing plant known as the Three Mile Hill mill, tailings storage facilities, workshops and administrative buildings are located on eight mining leases and are within the prescribed premises boundary.

Three Mile Hill is licensed for three prescribed activities; processing, dewatering and the operation of a putrescible landfill.

Focus operates a 1.2 million tonnes per annum carbon-in-leach gold processing plant (Three Mile Hill mill). Ore from Focus's mining activities is stored on the ROM before being crushed and sent through the mill. The tailings are deposited into the Three Mile Hill TSF located to the north east of the plant. Excess water on the tailings is returned via the decant causeway to the processing plant and is re-used in the mill. Additional water is supplied to the mill from the gravity dam which receives water from the borefields and Bayleys underground.

Mine dewatering has occurred historically at a number of open pits and underground mines within the premises boundary. During operations of the Tindals underground mine, excess water was pumped to the Tindals holding tanks and from there to the Brilliant open pit. In addition to the water was pumped from the Bayleys underground to the Bayleys turkey's nest and from there via a pipeline to the three mile hill gravity dam for utilisation in the milling process during milling operations.

Focus currently operates two landfill sites. One is located at the Greenfields open pit area, which services the main offices and mill and the other at the Dreadnought open pit which services the Tindals mining center. Putrescible and non-recyclable wastes are placed in trenches within the waste landform footprints. Trenches are 30 m long, 2 m wide and at least 3 m deep.

| | | |
|-----|--|--|
| | condition 19 to ensure that uncontaminated stormwater is kept separate from contaminated or potentially contaminated stormwater and that if stormwater has come into contact with a possible source of contamination, it is then treated as contaminated. | <i>Environmental Protection Act 1986</i> |
| OSC | DER's assessment and decision making are detailed in Appendix A | Historical application supporting documentation General Provisions of the <i>Environmental Protection Act 1986</i> <i>Environmental Protection (Rural Landfill) Regulations 2002</i> |
| OSC | Descriptive limits will be set through condition 2.6.2 of the licence and therefore OSC regarding recording and investigation of exceedances of limits or targets has been included. | N/A |
| N/A | Normal Operation There are no significant point source emissions to air as a result of the operations at the premises. No conditions relating to point source emissions to air or the monitoring of these conditions are required for the Licence. | General provisions of the <i>Environmental Protection Act 1986</i> |



DECISION TABLE

| Works Approval / Licence section | Condition number W = Works Approval L = Licence | OSC or NSC | Justification (including risk description & decision methodology where relevant) | Reference documents |
|--|---|------------|--|---|
| Point source emissions to surface water including monitoring | N/A | N/A | Normal Operation There are no point source emissions to surface water as a result of the operations at the premises. No conditions relating to point source emissions to surface water or the monitoring of these conditions are required for the Licence. | General provisions of the <i>Environmental Protection Act 1986</i> |
| Point source emissions to groundwater including monitoring | N/A | N/A | Normal Operation There are no point source emissions to groundwater as a result of the operations at the premises. No conditions relating to point source emissions to groundwater or the monitoring of these emissions are required for the Licence. | General provisions of the <i>Environmental Protection Act 1986</i> |
| Emissions to land including monitoring | L2.5.1 and L3.5.1 | OSC | The dewatering from Tindal's underground to Brilliant pit has not been reassessed during this amendment. Monitoring for Brilliant pit has been carried over from previous licence (condition 1) in OSC 3.5.1. | General Provisions of the <i>Environmental Protection Act 1986</i> |
| Fugitive emissions | L2.6.1 – L2.6.2 | OSC | DER's assessment and decision making for CNX pit are detailed in Appendix A. Fugitive emissions have not been reassessed as part of this amendment. OSC 2.6.1 and 2.6.2 have been included to replace conditions 8 and 9 of the existing licence. | Applicant supporting documentation General provisions of the <i>Environmental Protection Act 1986</i> . |
| Odour | N/A | N/A | Odour has not been reassessed as part of this amendment. As the previous licence did not impose conditions on odour, no specified conditions have been included in this section. SC 1.2.1 applies. | General provisions of the <i>Environmental Protection Act 1986</i> . |
| Noise | N/A | N/A | Noise has not been reassessed as part of this amendment. As the previous licence did not impose controls on noise, no specified conditions have been included in this section. The <i>Environmental Protection (Noise) Regulations 1997</i> and SC 1.2.1 apply. | <i>Environmental Protection (Noise) Regulations 1997</i> |
| Monitoring general | L3.1.1 and L3.1.2 | OSC | General monitoring conditions have been included in the Licence to support the monitoring relating to ambient environmental monitoring. OSC's L3.1.1 and L3.1.2 have been included to ensure water monitoring is carried out in accordance with appropriate standards. | Australian Standard AS/NZS 5667.1 – Water Quality – Sampling – Guidance on the Design of sampling programs, |

| | | |
|-----|---|--|
| | volumes of dewatering water discharged into approved pits are recorded and the volumes of tailings deposited into the TSF, volumes of water recovered from the TSF and the volume of seepage recovered are measured by the Licensee. | <i>Environmental Protection Act 1986</i> |
| OSC | Monitoring requirements have not been reassessed as part of this amendment. Condition 3.8.1 has been included to replace condition 1 of the existing licence. | General provisions of the <i>Environmental Protection Act 1986</i> . |
| N/A | Monitoring requirements have not been reassessed as part of this amendment. As the previous licence did not require meteorological monitoring, no specified conditions have been included in this section. | N/A |
| NSC | IR1 has been added to the Licence which requires the Licensee to submit to the CEO a groundwater management plan for the decommissioned flotation and CIL TSF, as groundwater in the area has recently been identified as shallow as <2mbgl. The plan needs to be submitted to the CEO by 1 September 2015. | General provisions of the <i>Environmental Protection Act 1986</i> . |
| N/A | Standard conditions relating to the management of records and complaints, notification requirements and the submission of an annual audit compliance report and annual environmental report are included in the Licence. | N/A |
| N/A | The Licence duration has not been extended as a result of this amendment. | N/A |

5 Advertisement and consultation table

| Date | Event | Comments received/Notes | How comments were taken into consideration |
|------------|---|--|---|
| 30/09/2013 | Application advertised in West Australian (or other relevant newspaper) | No comments received | |
| 26/02/2015 | Proponent sent a copy of draft amended instrument | <ul style="list-style-type: none"> • Landfill tipping area should be 30 metres, not 20 metres. • requested the removal of standing water level limits in Table 3.8.1 for the decommissioned TSF bores. | <ul style="list-style-type: none"> • Landfill tipping area has been updated to 30 metres from 20 metres in accordance with the original works approval. • Standing water level limits and targets for the decommissioned TSF bores have been removed in Table 3.8.1 as the Licensee is unable to currently comply. Instead, an improvement condition has been added to the Licence, requiring a groundwater management plan to be submitted to the CEO. |



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

| Likelihood | Consequence | | | | |
|----------------|---------------|----------|----------|----------|---------|
| | Insignificant | Minor | Moderate | Major | Severe |
| Almost Certain | Moderate | High | High | Extreme | Extreme |
| Likely | Moderate | Moderate | High | High | Extreme |
| Possible | Low | Moderate | Moderate | High | Extreme |
| Unlikely | Low | Moderate | Moderate | Moderate | High |
| Rare | Low | Low | Moderate | Moderate | High |



Appendix A

Emission Risk Assessment –

Premises Operation

Normal Operation

Emission Description

Emission: Tailings held in the TSF as a waste product from gold processing including cyanide and heavy metals. Seepage from the TSF into the surrounding groundwater may occur over time as tailings are deposited into the facility.

Impact: Contamination of groundwater and surrounding soils and potentially vegetation death.

Controls: A groundwater recovery plan has been produced to reduce groundwater levels in TSF monitoring bore TMHWMB05. Seepage collection trenches are in place around the TSF and groundwater is continually monitored.

Risk Assessment

Consequence: Moderate

Likelihood: Possible

Risk Rating: Moderate

Regulatory Controls

OSCs 1.3.3 – 1.3.6 have been included in the Licence to ensure the TSF is managed appropriately and operated in accordance with original construction documents. These conditions also ensure the Licensee manages the TSF to minimise the supernatant pond as far as practical and to ensure that a seepage collection and recovery system is in place to capture seepage that may occur.

Ambient groundwater monitoring is required by condition 3.8.1 around the TSF. Limits have been placed on standing water level on the bores around the TSF. A groundwater recovery plan is underway to reduce groundwater levels in monitoring bore TMHWMB05.

Residual Risk

Consequence: Moderate

Likelihood: Possible

Risk Rating: Moderate

Normal Operation

Emission Description

Emission: Clean fill, inert waste types 1 and 2 and putrescible waste

Impact: Contamination of groundwater through leachate and contamination of stormwater run-off.

Controls: The licensee will adhere to the rural landfill regulations and existing licence conditions relating to the management of waste.

Risk Assessment

Consequence: Minor

Likelihood: Possible

Risk Rating: Moderate

Regulatory Controls

OSC's L1.3.7 - L1.3.9 have been included in the Licence to manage the category 89 landfill operated on the site. These conditions outline the type of waste and the management of the facility.



Residual Risk

Consequence: Minor

Likelihood: Unlikely

Risk Rating: Moderate

Abnormal Operation

Emission Description

Emission: Pond overtopping and release of tailings containing cyanide, toxic metals, sulfide minerals and dissolved solids.

Impact: Contamination of surrounding soils with toxic metals, sulfide minerals, dissolved solids and cyanide affecting soil and ground water quality and causing vegetation stress or even deaths if the exposure is for a prolonged period.

Controls: The facilities are constructed and maintained in accordance with original management documents, including a minimum freeboard and daily inspections.

Risk Assessment

Consequence: Moderate

Likelihood: Unlikely

Risk Rating: Moderate

Regulatory Controls

OSC 1.3.4 relates to maintaining a minimum top of embankment freeboard of 500 mm within all storage facilities containing saline, alkaline or cyanide constituents to accommodate extreme rainfall events and prevent overtopping.

OSC 1.3.6 relates to carrying out visual daily inspections by the licensee for the embankment freeboard whilst the site is operational. Weekly inspections may occur when the site is in care and maintenance.

Residual Risk

Consequence: Moderate

Likelihood: Unlikely

Risk Rating: Moderate

Emergency Situation

Emission Description

Emission: Hypersaline water as well as tailings are transported in pipelines through areas of native vegetation. Emissions will occur if the pipelines rupture and/or leak.

Impact: Contamination of surrounding soils with dissolved solids can affect groundwater quality and cause vegetation stress or even death if exposure is for a prolonged period.

Controls: Pipelines have been constructed in accordance with AS/NZS standards.

Risk Assessment

Consequence: Moderate

Likelihood: Possible

Risk Rating: Moderate

Regulatory controls

OSC's relating to pipelines will be included in the Licence through conditions 1.3.1 and 1.3.6. OSC 1.3.1 will ensure pipelines containing environmentally hazardous materials will be managed appropriately and corrective action is taken in the event that pipelines leak or rupture. OSC 1.3.6 will



ensure daily inspections are carried out for pipeline integrity whilst the site is in operation. Weekly inspections may be carried out whilst the site is in care and maintenance.

Residual Risk

Consequence: Moderate

Likelihood: Unlikely

Risk Rating: Moderate

Emissions to land including monitoring

Normal Operation

Emission Description

Emission: Hypersaline dewatering effluent and recovered seepage is discharged from TMHWMB05 to CNX pit.

Impact: Potential contamination of groundwater and possible mounding of the water table in the vicinity of the pit. There may also be a risk to fauna with the presence of WAD CN in the discharge water. Ingestion of WAD CN solutions by birds and mammals may cause delayed mortality due to toxicity.

Controls: A historic review of drill data sheets for CNX pits indicates that groundwater was not encountered during the initial exploration phase. The pit was dry at completion of mining in 1991 and thus no groundwater was encountered during mining. Currently water in the pit is from rainfall and run-off, confirmed by laboratory analyses.

Recent drilling programs carried out at CNX during 2012 and 2013 further supports this data. Groundwater was only encountered at one of the 32 holes drilled. This hole (CNXC06) intersected ground water below the current level of the pit at 370RL, whilst the pit only goes to 388RL - groundwater depth level being 18 m from the bottom of CNX pit. This suggests that TMHWMB05 and CNX pit are not inter-connected and thus interactions between the two will be minimal. Focus thus believes that a transfer of water from TMHWMB05 to CNX pit will alleviate the mounding of water around the bore with limited impact to the area around CNX pit. Additionally the potential impacts to vegetation around the bore will be greatly reduced.

An analysis of CNX pit at present shows that approximately 20 800 m³ of water is held within the pit collected through rainfall and run off. The total pit volume is around 267 500 m³ thus leaving a storage capacity of 213 200 m³ (assuming a 5 m free board). It is assumed that water from CNX pit will be pumped back to the mill for processing purpose.

Groundwater in the area is known to be saline to hypersaline and as such has limited value or use as drinking water. There are no known groundwater dependent ecosystems in the area.

Risk Assessment

Consequence: Moderate

Likelihood: Possible

Risk Rating: Moderate

Regulatory Controls

OSC 2.5.1 specifies where mine dewatering can be discharged. 2.5.2 and 2.5.3 include freeboard limits and targets of >4 m below crest level and >6 m below crest level respectively. 3.5.1 ensures monthly and quarterly monitoring for both CNX pit and Brilliant pit. A WAD CN limit has been set at 0.5 mg/L in order to protect avifauna.

Residual Risk

Consequence: Moderate

Likelihood: Unlikely

Risk Rating: Moderate