



Application for Licence Amendment

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

Licence Number	L8907/2015/1
Licence Holder	Big Bell Gold Operations Pty Ltd
ACN	090 642 809
File Number	DER2015/001593-1~3
Premises	Cue Gold Operations – Day Dawn Project Mining Tenements M21/7, M21/10, M21/14, M21/44, M21/65 and M21/89 As defined by the Premises maps attached to the Revised Licence
Date of Report	7 December 2021
Proposed Decision	Intent to grant revised licence

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

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1. Decision summary

Licence L8907/2015/1 is held by Big Bell Gold Operations Pty Ltd (Licence Holder) for the Cue Gold Operations – Day Dawn Project (the Premises), located at mining tenements M21/7, M21/10, M21/14, M21/44, M21/65 and M21/89.

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 L8907/20105/1 has been granted.

The Revised Licence issued as a result of this amendment consolidates and supersedes the existing Licence previously granted in relation to the Premises. The Revised Licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

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 Amendment summary

On 30 August 2021, the Licence Holder submitted an application to the department to amend Licence L8907/2015/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Add Category 12 to the Licence; and
- Remove Category 70

The Licence Holder seeks amendment to increase the capacity of a crushing and screening plant within the existing mining area at the Day Dawn Project. Material will be utilised for the sheeting of the haul and access roads that are utilised by the Licence Holder.

The crushing and screening facility is located on the existing Great Fingall run-of-mine pad (ROM), in an area that has been sheeted with competent fresh rock material.

A compliance document for the Category 70 was submitted with the application, as part of the Licence amendment issued in June 2021. The construction of the settlement pond and the reclaim pond deviated from the approved design. The settlement pond and reclaim pond have been constructed using polyethylene water tanks were buried in the ground adjacent to the mobile crushing and screening plant.

Each polyethylene water tank is impervious. The base of each tank has been lined with concrete to maintain structural integrity. The two tanks have the same storage capacity as the approved ponds in Table 1.2.3 of licence L8907/2015/1. The dimensions and capacity of each tank is provided below:

- Diameter: 3.6 m
- Depth: 1.0 m
- Volume: 10.18 m³

This amendment is limited only to removal of the Category 70 activity in the Licence. No changes to the aspects of the existing Licence relating to Category 6 have been requested by the Licence Holder.

Table 1 below outlines the proposed changes to the existing Licence.

Table 1: Proposed design or throughput capacity changes

Category	Current design / throughput capacity	Proposed design/ throughput capacity	Description of proposed amendment
12	N/A	500,000 tonnes per year	Addition of category 12 to licence
70	50,000 tonnes per year	N/A	Deletion of category 70 from licence

The Licence Holder proposes no change to the rate of crushing and screening. The original proposal (Category 70) was based on campaign crushing and screening only, with up to 1500 tonnes of material crushed and screened per 12 hour shift across 30 days within a calendar period. The licence holder will maintain the same crushing rate, with availability to crush up to 1500 tonnes of material per 12 hour shift across 330 days within a calendar period.

There will be no increase in the daily volume of wastewater generated. Up to 8,000L of water will be circulated between the crushing/screening plant and the settling/reclaim ponds.

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 in Table 2 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	Crushing of material, vehicle movements, lift-off from stockpiles and/or stored product, earthworks etc.	Air/windborne pathway	<ul style="list-style-type: none"> Use of water carts on exposed surfaces and stockpiles. Use of sprinklers on the crushing and screening plant. Changing operating conditions during unsuitable weather conditions (i.e., strong winds).
Noise	Crushing and screening of material	Air/windborne pathway	<ul style="list-style-type: none"> Crushing and screen equipment will only be operated during 'day-time' hours.

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> A complaints register will be maintained. If a complaint is received, an adjustment to the operations schedule will be made in consultation with the complainant.
Ponds overtopping - overland run-off	Storage of process water in ponds	Overtopping of pond embankment potentially causing ecosystem disturbance or impacting surface water quality	A minimum 500mm freeboard will be maintained.
Leachate from ponds	Storage of process water in ponds	Seepage to soils and groundwater	Ponds constructed with impervious to seepage and certified by a suitably qualified engineer.
Sediment laden stormwater	Screening, crushing, unloading, loading and storage of material	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	<ul style="list-style-type: none"> Earthen windrows installed around crushing and screening plant to divert uncontaminated stormwater away from the area and to contain any sediment laden stormwater Chemicals are not used as part of the crushing and screening process A runoff drain installed to direct process water to the settlement tank.
Hydrocarbon spills	Machinery refuelling	Soil infiltration impacting groundwater Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	<ul style="list-style-type: none"> Earthen windrows installed around crushing and screening plant to divert uncontaminated stormwater away from the area Spill control equipment to be made available and maintained at machinery refuel point

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
Cue (town)	5km north-east Screened out - distance is considered too far to be considered a receptor
Environmental receptors	Distance from prescribed activity
Unnamed drainage channel	Approximately 200m east southeast of the prescribed activity
Underlying groundwater	10 m below ground level Groundwater salinity 1300 mg/L
Brega Well Station	1km north-east
Remaining native vegetation	Adjacent to the prescribed activity
Wildlife and cattle	Within and around premises
Threatened/Priority Flora	TEC P3_ Austin LS05 726 m south-east of the proposed activity

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 L8907/2015/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. Crushing and screening activities.

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								
Screening, crushing, unloading, loading and storage of material Vehicle movements	Dust	Air/windborne pathway Impacts to health and amenity Impacts to native vegetation by smothering	Brega Well Homestead approximately 1 km east Native vegetation (TEC)	Refer to Section 3.1	C = Slight Minimal onsite impacts only. L = Rare The risk event may only occur in exceptional circumstances. Low Risk	Y	Current licence conditions still apply	N/A
	Noise	Air/windborne pathway causing impacts to health and amenity	Brega Well Homestead approximately 1 km east	Refer to Section 3.1	C = Slight Minimal onsite impacts only. L = Rare The risk event may only occur in exceptional circumstances. Low Risk	Y	Current licence conditions still apply	N/A
	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Seasonal minor creek 300m southeast	Refer to Section 3.1	C = Minor Low level onsite impacts with minimal off site impacts local scale. L = Rare The risk event will probably not occur in most circumstance. Low Risk	Y	Current licence conditions still apply	N/A

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				
Screening, crushing, unloading, loading and storage of material	Machinery refueling Hydrocarbon spills	Soil infiltration impacting groundwater Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Groundwater 10 mbgl Seasonal minor creek 300m south-east	Refer to Section 3.1	C = Minor Low level onsite impacts with minimal off site impacts local scale. L = Rare The risk event will probably not occur in most circumstances. Low Risk	Yes	Current licence conditions still apply	N/A

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
Shire of Cue advised of proposal on 26/10/2021	No response	N/A
Department of Mines, Industry Regulation and Safety (DMIRS) advised of proposal on 26/10/2021	DMIRS replied on 17/11/2021 stating that Mining proposal (MP) REG ID 99390: Day Dawn Project – Great Fingall Crushing and Screening Plant (Revision 1) approves the expansion and operation of a crushing and screening facility at Day Dawn.	N/A
Brega Well Station advised of proposal on 26/10/2021	No response	N/A
Licence Holder was provided with draft amendment on 6/12/2021	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
N/A	Update to prescribed category description table to include new category 12 and remove category 70.
1.2.7	Amended to reflect infrastructure installed
Table 1.2.3	Table amended to reflect as built
1.2.8	Condition removed. Compliance documentation submitted with this amendment application.
1.2.9	Condition amended. Now condition 1.2.8
Schedule 1: infrastructure location	Map replaced to reflect the installed location of the settlement and reclaim ponds

References

1. DWER, October 2015. Guidance Statement: Setting conditions. Department of Environment Regulation, Perth.
2. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
3. DWER, June 2019. Guideline: Decision Making. Department of Water and Environment Regulation, Perth
4. Email: K. Critchell, Application for an amendment to Licence L8907/2015/1 under the Environmental Protection Act 1986, 30 August 2021.
5. Big Bell Gold Operations Pty Ltd, Supporting Document Amendment to Licence L8907/2015/1, August 2021
6. MACA Interquip, Certificate of structural integrity, dated 24 August 2021.
7. Correspondence dated 30 November 2021 from Westgold, providing response to further information requested by DWER on 9 November 2021.

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

Condition	Summary of Licence Holder's comment	Department's response
1 – Table 1.2.3	Applicant asked for the removal of the freeboard requirement for the settlement pond and reclaim pond. The ponds/tanks are located within a bunded area of ~1m in height. The removal of the freeboard limit would provide greater capacity in the tanks for the storage of recycled water.	In case of overtopping, water can be contained within the bund. <i>Environmental Protection (Unauthorised discharges) Regulations 2004</i> are applicable. Condition amended – freeboard limit removed.

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY			
Application type			
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L8907/2015/1
		Relevant works approval number:	N/A <input checked="" type="checkbox"/>
Date application received		30/08/2021	
Applicant and Premises details			
Applicant name/s (full legal name/s)		Big Bell Gold Operations Pty Ltd	
Premises name		Cue Gold Operations – Day Dawn Project	
Premises location		M21/7, M21/14, M21/44, M21/89, M21/10 and M21/65	
Local Government Authority		Shire of Cue	
Application documents			
HPCM file reference number:		DWERDT497643	
Key application documents (additional to application form):		Supporting Document Amendment to licence L8907	
Scope of application/assessment			
Summary of proposed activities or changes to existing operations.		<p>Operation of crushing and screening machine</p> <p>Addition of a Category 12 crushing and screening plant to the licence. Existing mobile machinery is in place (as approved Category 70). Material will be utilised for the sheeting of the haul and access roads that are utilised by the company. Material will also be available for purchase by external parties. No changes to the existing crushing and screening circuit are proposed.</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 12: Screening etc. of material	Up to 500,000 tonnes per year	Increase in throughput	
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?	No <input checked="" type="checkbox"/>	N/A	
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	No <input checked="" type="checkbox"/>	N/A	

Has the proposal been referred and/or assessed under the EPBC Act?	No <input checked="" type="checkbox"/>	Reference No: N/A	
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/>	Mining lease <input checked="" type="checkbox"/> M21/7 Expiry:2027 M21/10 Expiry:2028 M21/14 Expiry:2028 M21/44 Expiry:2031 M21/65 Expiry:2033 M21/89 Expiry:2037	
Has the applicant obtained all relevant planning approvals?	N/A <input checked="" type="checkbox"/>	Mining Tenements	
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	No <input checked="" type="checkbox"/>	No clearing is proposed.	
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	No <input checked="" type="checkbox"/>	No clearing is proposed.	
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/>	Licence No: GWL176056	
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input checked="" type="checkbox"/>	Name: East Murchison Type: Proclaimed Groundwater Area Has Regulatory Services (Water) been consulted? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Regional office: Mid-West Gascoyne	been
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	No <input checked="" type="checkbox"/>	Name: N/A	
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"/>	<i>Mining Act 1978</i> MP ID 94279 – approval to operate crushing and screening	
Is the Premises within an Environmental Protection Policy (EPP) Area?	No <input checked="" type="checkbox"/>	N/A	
Is the Premises subject to any EPP requirements?	No <input checked="" type="checkbox"/>	N/A	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	No <input checked="" type="checkbox"/>	N/A	