



Application for Licence Amendment

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

Licence Number	L6868/1989/12
Licence Holder	Billabong Gold Pty Ltd
ACN	613 900 922
File Number	DER2014/001259-1
Premises	Plutonic Gold Mine Mining Tenements: M52/171, M52/170, M52/148, M52/149, M52/150, M52/295, M52/296, M52/301 and M52/300 MEEKATHARRA WA 6642
Date of Report	15 October 2020
Decision	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 L6868/1989/12 is held by Billabong Gold Pty Ltd (Licence Holder) for the Plutonic Gold Mine (the Premises), located at Mining Tenements M52/171, M52/170, M52/148, M52/149, M52/150, M52/295, M52/296, M52/301 and M52/300, Meekatharra.

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 L6868/1989/12 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 Application summary

On 4 September 2020, the Licence Holder submitted an application to the department to amend Licence L6868/1989/12 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The amendments is being sought for the addition of two new gas fired turbines to the onsite power station.

This amendment is limited only to changes to Category 52 activities from the Existing Licence. No changes to the aspects of the existing Licence relating to Categories 5, 6, 54, 57 and 89 have been requested by the Licence Holder.

Table 1 outlines the proposed changes to the existing Licence.

Table 1: Proposed design capacity changes

Category	Current approved design capacity	Proposed design capacity	Description of proposed amendment
52	24.1 MW	27.2 MW	Addition of 2 x 3 MW Jenbacher units installed at the premises without approval under Part V of the EP Act. Construction commenced in April 2020 with commissioning occurring in July 2020.

The approved power station for L6868/1989/1 includes the following gas fired turbines:

- Two Mirlees Blackstone Gensets (Mirlees units, existing Gas Engines 1 and 2) – nominal capacity 2 MW each installed. Mirlees units used as required following scheduled and unscheduled plant downtime.
- Four Wartsila 18V34GS Gensets (Wartsila units, existing Gas Engines 3 to 6) – nominal capacity 3.8 MW each installed. Wartsila units used as emergency standby.

Following a DWER compliance inspection undertaken in July 2020, two 3 MW gas fired turbines had been installed at the premises (within the processing plant area) without approval under Part V of the EP Act:

- Two GE Jenbacher J 620 GS (Jenbacher units, new Gas Engines 7 and 8) – nominal capacity 3.0 MW each installed.

The Applicant has applied for a licence amendment for the operation of the two new gas fired turbines.

The Applicant proposes to keep the Wartsila units as emergency standby and plans to decommission two of the four Wartsila units in Q2 2021.

2.3 Consolidation of Licence

As part of this amendment package, the department has consolidated the licence by incorporating changes made under the Amendment Notices as summarised in Table 2.

Table 2: Licence and amendment notices consolidated in this amendment

Instrument	Issued	Summary of approval
L6868/1989/12	04/09/2014	Licence granted
L6868/1989/12	26/04/2016	Notice of Amendment of Licence Expiry Dates
L6868/1989/12	21/04/2017	Amendment Notice 1: Licence amendment to remove the SWL limit for the TSF bores and to remove the requirement to monitoring Piranha In-Pit TSF bores PIRMB1, PIRMB2, PIRMB3 and PIRMB4. The Improvement Program IR1 condition 4.1.1, Table 4.1.1 was also replaced as the management recommendations and commitments were received from the Applicant and have been included as the new IR1.
L6868/1989/12	31/08/2018	Amendment Notice 2: Licence amendment to allow the disposal of pit water from Salmon Pit Lake to be discharged to an ephemeral creek-line and removal of ambient groundwater monitoring for historic in-pit TSFs (Callop, Dogfish, Perch, Catfish, Piranha and Trout).

The obligations of the Licence Holder have not changed in consolidating the licence. The department has not undertaken any additional risk assessment of the Premises related to previous Amendment Notices.

In consolidating the licence, the CEO has:

- updated the format and appearance of the Licence;
- revised licence condition's numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

The full consolidation of licence conditions as they relate to this Revised Licence are detailed in Section 5.1. Previously issued Amendment Notices will remain on the department's website for future reference and will act as a record of the department's decision making.

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 *Guidance Statement: Risk Assessments* (DER 2017).

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 3. Table 3 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 3: Licence holder controls

Emission	Sources	Potential pathways	Proposed controls
Water	Water usage	Disposal of wastewater	Decrease in water sourced from the bore fields for engine cooling of the older units. The new sets use a more efficient closed-circuit radiator rather than the open circuit evaporative units. Upgrading the power plant to closed circuit radiators will reduce the amount of potable/raw water required for the open circuit radiators by approximately 400 m ³ /day.
Noise	Gas turbines	Air/windborne pathway	The upgraded facility includes two (2) containerised units installed immediately to the western side of the existing facility.
Air emissions	Gas turbines	Air/windborne pathway	Decrease in natural gas usage as more generating load is placed the newer units rather than the older sets. As previously approved, every 1000 hours the flue gas is analysed in order to tune the engine. This is performed using a Testo 340 Flue Gas Analyser and the engine is tuned based on NOx readings.
Dust	Gas turbines	Air/windborne pathway	Water usage within the facility for dust suppression is sourced from the licensed bore field within the operation. Dust suppression is undertaken via a water truck filled from a standpipe at the turkeys nest and Laterite pit.

3.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), 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 4 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 (*Guidance Statement: Environmental Siting* (DER 2016)).

Table 4: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Nearest prescribed premises	>25 km (south west and north east) – not likely to be impacted.
Environmental receptors	Distance from prescribed activity
Nil	-

3.2 Risk rating

Risk has been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) 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.

As linkages are in-complete, the risks of operating the two gas turbines is low and have not been considered further.

The Licence Holder mitigation measures/controls are detailed in Section 3.1, and the Delegated Officer considers the Licence Holder’s proposed controls identified in Section 3.1 to be acceptable to mitigate any impacts.

The Revised Licence L6868/1989/12 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. the two new gas engines.

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

4. Consultation

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

Table 5: Consultation

Consultation method	Comments received	Department response
Licence Holder was provided with draft amendment on (13/10/2020)	No comments.	N/A

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 maps the reformatting of the licence, 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 amendments and consolidation of licence conditions

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Replace 'licensee' with 'licence holder'	All conditions	Revised to current licensing format.
N/A	Cover page	Replaced	Cover page replaced with current template.
N/A	Prescribed Premises Category table	Category 53: Electric Power Generation	Increased Category 52: Electric Power Generation to 27.2 MW (natural gas). Revised to current licensing format.
N/A	Contents, Introduction, Severance	N/A	This guidance is available in the department's Guideline: Industry Regulation Guide to Licensing (June 2019) and in the relevant decision reports and amendment notices for the licence. Deleted from licence.
N/A	Instrument Log	Licence History	Added summary of recent amendment notices and this amendment.
1.1.1 1.1.2	Interpretation and definitions	Interpretation section prior to licence conditions Definitions at end of licence conditions	Redundant condition. Revised to current licensing format.
1.1.3	Australian or other standard	Interpretation section prior to licence conditions Definitions at end of licence conditions	Redundant condition. Revised to current licensing format.
1.1.4	Reference to code of practice	Interpretation section prior to licence conditions Definitions at end of licence conditions	Redundant condition. Revised to current licensing format.
1.2.1	Recovery and removal of spills	N/A	Redundant condition. Adequately covered by EP (Unauthorised Discharges) Regulations 2004. Deleted from licence.
1.2.2	Stormwater diversion	Condition 1.1.1	New numbering.
1.3.1 to 1.3.9	Premises operation	Conditions 1.2.1 to 1.2.9	New numbering.
1.3.10	Category limits	Condition 1.2.10	New numbering. Increased Category 52: Electric Power Generation to 27.2 MW (natural gas).
1.3.11	Construction of TSF2, TSF3 lifts and discharge pipeline	Condition 1.2.11	New numbering. Update as per Amendment notice 2.
1.3.12	Operate TSF2, TSF3 lifts and discharge pipeline	Condition 1.2.12	New numbering. Update as per Amendment notice 2. Update numbering reference within the condition.

Existing condition	Condition summary	Revised licence condition	Conversion notes
2.1.1	Record and investigate exceedances of limits or targets	N/A	Redundant condition as identified in Amendment Notice 2. Deleted from licence.
2.2.1	Point source emissions to air	Condition 2.1.1	New numbering, minor clarification of condition requirements. Addition of emission points A8 and A9 to reflect this amendment.
2.3.1	Point source emissions to surface water	Condition 2.2.1	New numbering, minor clarification of condition requirements. Addition of emission point W2 as per Amendment Notice 2.
2.4.1	Emissions to land	Condition 2.3.1	New numbering, minor clarification of condition requirements.
3.2.1	Monitoring of point source emissions to surface water	No change	Minor clarification of condition requirements. Addition of emission point W2 as per Amendment Notice 2
3.3.1	Monitoring of emissions to land	No change	Minor clarification of condition requirements.
3.5.1	Ambient environmental quality monitoring	No change	Minor clarification of condition requirements. Modification of monitoring points as per Amendment Notice 2
4	Improvements	N/A	Condition requirements completed as per Amendment Notice 1 and 2. Deleted from licence.
5	Information	Condition 4	New numbering and update to wording format as per previous Amendment Notice 2.
N/A	Definitions	Definitions	Added: 'ACN', 'books', 'emission', 'prescribed premises', 'waste.' Modified: 'Act' replaced with 'EP Act', 'licensee' replaced with 'licence holder.'
Schedule 1: Maps	Maps	No change	Remove and replace as per Amendment Notice 1 and 2. Update to map of emission points to include A8 and A9 as per this amendment.
Schedule 2 Reporting & notifications	Form WR1 Form GR1	No change	Added emission point W2 to WR1 and revised the ambient groundwater monitoring points in GR1.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. DER 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
3. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.

Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?		Yes <input type="checkbox"/> No <input type="checkbox"/>
		Has time limited operations under the works approval demonstrated acceptable operations?		Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?		Yes <input type="checkbox"/> No <input type="checkbox"/>
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L6868/1989/12	
		Relevant works approval number:		N/A <input type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:		None <input type="checkbox"/>
Date application received				
Applicant and Premises details				
Applicant name/s (full legal name/s)		Billabong Gold Pty Ltd		
Premises name		Plutonic Gold Mine		
Premises location		Mining Tenements: M52/171, M52/170, M52/148, M52/149, M52/150, M52/295, M52/296, and M52/301 MEEKATHARRA WA 6642		
Local Government Authority		Shire of Meekatharra		
Application documents				
HPCM file reference number:		DER2014/001259-1		
Key application documents (additional to application form):		Supporting document		
Scope of application/assessment				
Summary of proposed activities or changes to existing operations.		Operation of two newly constructed gas turbines.		

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
Category 52: Electric power generation	24.1 MW design capacity	Temporary increase to 27.2 MW design capacity

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 type="checkbox"/> No <input type="checkbox"/>	
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
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"/>
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	If N/A explain why? Not required
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> 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?	Yes <input type="checkbox"/> 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 type="checkbox"/> No <input checked="" type="checkbox"/>	Licence / permit not required.
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"/>	
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004</i> , <i>Environmental Protection (Controlled Waste) Regulations 2004</i> , <i>State Agreement Act xxxx</i>)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
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"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	