



## Application for Licence Amendment

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

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<b>Licence Number</b>	L6420/1988/14
<b>Licence Holder</b>	Kalgoorlie Consolidated Gold Mines Pty Ltd
<b>ACN</b>	009 377 619
<b>File Number</b>	DER2015/002506-1
<b>Premises</b>	<p>Fimiston Plant and Tailings Storage Facilities</p> <p>Mining Tenements G26/15, G26/44-68, G26/70-71, G26/73-78, G26/82-86, G26/99-107, G26/138-145, G26/149, G26/159, G26/160, G26/165, G26/166, L26/267, M26/39, M26/46, M26/78, M26/86, M26/95, M26/267-268, M26/294, M26/308, M26/326, M26/359, M26/377, M26/383, M26/405, M26/448, M26/451 and M26/715</p> <p>KALGOORLIE WA 6430</p>
<b>Date of Report</b>	13 August 2020
<b>Decision</b>	Revised licence granted

**A/Manager, Resource Industries  
REGULATORY SERVICES**

*An officer delegated by the CEO under section 20 of the EP Act*

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# 1. Decision summary

Licence L6420/1988/14 is held by Kalgoorlie Consolidated Gold Mines Pty Ltd (Licence Holder) for the Fimiston Plant and Tailings Storage Facilities (the Premises), located in Kalgoorlie 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 L6420/1988/14 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.

## 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://www.der.wa.gov.au>.

### 2.2 Amendment summary

On 11 June 2020, the Licence Holder submitted an application to the department to amend Licence L6420/1988/14 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Addition of category 12 to the Licence to allow for the crushing of up to 2 million tonnes of ore-bearing material prior to processing. The activity will be undertaken by a mobile crusher located adjacent to the existing ore stockpiles on the Oroya Waste Rock Landform.
- Addition of category 64 to the Licence to allow for the disposal of up to 10 000 tonnes of ore sample waste within the existing waste rock dump. As the disposal of ore sample waste will be undertaken at the existing landfill site, no additional impacts or emissions are expected.

This amendment is limited only to changes to Category 12 and 64 activities from the existing Licence L6420/1988/14. No changes to the aspects of the existing Licence relating to Category 5, 54 and 63 have been requested by the Licence Holder. No construction will be required for the proposed activities. The mobile crusher has been established as part of a previously-approved trial and the disposal of material under category 64 will be undertaken within existing waste areas.

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

**Table 1: Proposed throughput capacity changes**

Category	Proposed throughput capacity	Description of proposed amendment
12	1.8 Million tonnes per year	The Licence Holder proposes to operate a mobile crusher to produce pre-crushed fines for the Fimiston Processing Plant.
64	10,000 tonnes per year	The Licence Holder proposes to dispose of waste geological samples in the existing waste rock dump area. The geological

		samples are packaged in calico, paper and plastic bags.
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### 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 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 and screening of material	Air/windborne pathway	Water sprays on conveyors and transfer points. Water trucks servicing surrounding exposed areas. Incorporate the activity into the <i>Fimiston Air Quality Management Plan</i> , approved under Ministerial Statement 782.
Noise	Crushing and screening of material	Air/windborne pathway	Operating equipment within manufacturer's specifications. Incorporate the proposed activity into the <i>Noise and Vibration Monitoring and Management Programme</i> , approved under Ministerial Statement 782.
Stormwater contamination	Crushing and screening of material	Drainage lines pathway	Drainage management already captured under existing mining operations. No changes required for the proposed activities.
Groundwater contamination	Disposal of putrescible materials	Soil to groundwater	Ministerial Statement 782 requires the Licence Holder to develop and implement a management plan for waste dumping. No changes required for the proposed activities.

##### 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 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 (*Guidance Statement: Environmental Siting* (DER 2016)).

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

Human receptors	Distance from prescribed activity
City of Kalgoorlie- Boulder	<p>Located at western edge of Fimiston Open Pit; approximately 1.2km west of the proposed mobile crushing area.</p> <p>One of the landfill areas is located approximately 200m east of the City of Kalgoorlie- Boulder.</p>
Environmental receptors	Distance from prescribed activity
Native vegetation (no conservation significant vegetation species; potentially affected vegetation communities widespread regionally)	Adjacent to the Fimiston mine operations east and north of the site.

Figure 1 below shows the location of the Fimiston mine (including the mobile crushing plant and the Landfill area) in relation to the City of Kalgoorlie/Boulder (located immediately west of the Fimiston Open Pit).





**Figure 1: Premises in relation to sensitive receptors**

## 3.2 Risk ratings

Risk ratings have 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. 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 L6420/1988/14 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. crushing and screening activities and the disposal of certain putrescible wastes.

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 <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions included onto licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
<b>Operation</b>								
Screening, crushing, unloading and loading of material	<b>Dust</b>	Air/windborne pathway causing impacts to health and amenity	Nearest sensitive receptor 1.2 km west of the mobile crusher	Refer to Section 3.1.1	C = Minor L = Unlikely <b>Medium Risk</b>	Y	Condition 4.2.1	Updated Annual Environmental Reporting requirements to include categories 12 and 64 to the reportable throughput parameter to allow DWER to confirm authorised activity remains in line with approved throughputs.
	<b>Noise</b>	Air/windborne pathway causing impacts to health and amenity		Refer to Section 3.1.1	C = Minor L = Rare <b>Low Risk</b>	Y		
	<b>Sediment-laden stormwater</b>	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality	Surrounding native vegetation	Refer to Section 3.1.1	C = Minor L = Rare <b>Low Risk</b>	Y		
Class II landfill	<b>Putrescible material</b>	Seepage through landfill cells	Groundwater	Refer to Section 3.1.1	C = Minor L = Unlikely <b>Medium Risk</b>	N	Condition 1.3.9	Licence does not currently allow the disposal of class II waste. Condition 1.3.9 has been amended to allow for the disposal of putrescible materials.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).



## 4. 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.

### 4.1 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 Licence as part of the amendment process.

**Table 5: Summary of licence amendments**

Condition no.	Proposed amendments
1.3.9 – Table 1.3.5	Inclusion of “Putrescible material – mineral sample packaging only” in the waste type column;  Replacing the total disposal volumes allowed from 15,000 tonnes to 25,000 tonnes and including the wording “including a maximum of 10,000 tonnes or putrescible material”.
4.2.1 – Table 4.2.1	Updated Annual Environmental Reporting requirements to include categories 12 and 64 to the reportable throughput parameter.
Schedule 2	Including categories 12 and 64 and their respective approved throughputs into the Prescribed Premises Categories table.
N/A	All references to “Licensee” in the Licence were updated to “Licence Holder” for consistency as per Interpretation section 1.1 of the Licence

## References

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

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

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Condition/Table	Summary of Licence Holder's comment	Department's response
Page 1	Remove "class II" from the description of category 64	Amended
Table 1.3.5	Clarification of the waste type description from "Putrescible material – mineral sample packaging only"; to "Putrescible material – mineral samples and associated packaging/pallets only"	Amended