



Application for Works Approval Amendment

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

Works Approval Number	W6689/2022/1
Works Approval Holder	Kalgoorlie Consolidated Gold Mines Pty Ltd
ACN	009 377 619
File Number	DER2022/000170
Premises	<p>Fimiston Processing Plant</p> <p>Tenements M26/383, M26/294, M26/359, M26/86, M26/46, L26/216, L26/217, G26/159</p> <p>KALGOORLIE WA 6430</p> <p>As defined by the premises map attached to the issued works approval</p>
Date of Report	18/07/2024
Decision	Revised works approval granted

**SENIOR ENVIRONMENTAL OFFICER, INDUSTRY REGULATION
STATEWIDE DELIVERY**

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

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1. Decision summary

Works Approval W6689/2022/1 is held by Kalgoorlie Consolidated Gold Mines Pty Ltd (the Licence Holder) for the Fimiston Processing Plant (the Premises), located on tenements M26/383, M26/294 and M26/359.

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 construction and operation of the Premises. As a result of this assessment, Revised Works Approval W6689/2022/1 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 Amendment summary

On 11 September 2023, the Works Approval Holder submitted an application to the department to amend Works Approval W6689/2022/1 (DWER, 2022) under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). W6689/2022/1 currently approves the construction of upgraded ore processing infrastructure up to a production capacity of 23,500,000 tonnes per annual period (tpa). The following amendments are being sought:

- Increase production capacity to 30,000,000 tpa;
- Modification to infrastructure components and staging to facilitate increased production capacity;
- Construction of a new saline water dam;
- Extension of premises boundary to encompass the new saline water dam (including mining tenements M26/86, M26/46, miscellaneous licence L26/216, L26/217, and general purpose lease G26/159);
- Increase timeframe for compliance reporting from 60 calendar days to 90 calendar days;
- Removal of existing condition 7 for notification during commencement and completion of environmental commissioning; and
- Extending works approval duration for an additional two years, as works have not currently commenced under the works approval and is unlikely to be completed prior to the existing expiry date.

Specifically, the Works Approval Holder has requested the following amendments to design and construction requirements relating to previously approved equipment specifications in Condition 1 Table 1 of works approval W6689/2022/1.

Table 1: Proposed Amendments to Design and Construction Requirements

Item	Infrastructure	Previously assessed design and construction requirements (DWER 2022)	Proposed amended design and construction requirements
1	Primary Crusher	Comprises 1 x 54-75 Gyratory Crusher	Comprises 1 x 54-75 or equivalent Gyratory Crusher

	Circuit		
2	Fimiston Processing Plant – Stage 1	1 x 18 MW dual pinion single stage SAG Mill	1 x 20 MW Dual Pinion SAG Mill
		1 x 22 MW GMD Ball Mill	1 x 20 MW Dual Pinion Ball mill
		1 x 2x7 Symons Pebble Crusher	2 x 7' Symons Pebble Crushers (administrative change only – typographical error in existing works approval)
		4 x 48" Knelson Concentrators	2 x 70" Knelson Concentrators
		1 x CS10000 Acacia Electrowinning Module	1 x CS8000 Acacia Electrowinning module
3.	Fimiston Processing Plant – Stage 2	8 x 5,100 m ³ Flotation leach tanks	8 x 5,600 m ³ leach tanks (servicing Flotation Tails)
		2 x M10000 Isamill Concentrate regrind mills	2 x M15000 Isamill Concentrate Regrind Mills
		600 tonnes of quicklime storage	2,200 tonnes of quicklime storage
4.	Carbon Regeneration	Kilns will be connected to a kiln off-gas cleaning circuit (KOGCC), comprising a wet scrubber (Venturi and Packed Bed) and sulphur-impregnated carbon filter beds, before reaching reaching stack outlet	<p>Installation of one carbon regeneration kiln with production capacity of 1,500 kg/hour connected to a single emission stack (A3), capable of capturing 90% of mercury stack emissions as per design targets of existing facility;</p> <p>Kilns will be connected to a KOGCC, comprising of a fines “knock-out” box, off-gas condenser, mist eliminator and sulfur impregnated carbon bed filters, before reaching stack outlet with adequate space to retrofit a regenerative thermal oxidiser, if required;</p> <p>Stack height constructed to at least 35 metres above ground level.</p>
5.	Stormwater Management	<p>Raw Water Dam #4</p> <ul style="list-style-type: none"> - Storage capacity of at least 18,890 m³, based on 1-in-25 year rainfall event for 24 hours and 110% of the volume of the largest vessel/container containing solution; - Base and walls are lined with high density polyethylene (HDPE); - Telemetry installed to monitor pond water levels; and - Fitted with recovery pump to divert water to the processing plant. 	<p>Event Pond</p> <ul style="list-style-type: none"> - Storage capacity of at least 25,000 m³, based on 1-in-25 year rainfall event for 24 hours and 110% of the volume of the largest vessel/container containing solution plus 15% contingency; - Base and walls are lined with HDPE; - Telemetry installed to monitor pond water levels; and - Fitted with recovery pump and water jets to divert water to the processing plant.

6.	Saline water dam	Not proposed.	<ul style="list-style-type: none"> - Saline water dam with storage capacity of at least 35,000 m³, which allows for freeboard of 500 mm to be maintained; - Lined with HDPE; - Connected to a scour pit with storage capacity of 5,640 m³ to store overflow; - Saline water to be pumped through an existing water and tailings pipeline corridor (with bunding and scour pits) to the Fimiston processing plant.
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The layout of the proposed infrastructure upgrade at the premises is shown in Figure 1. The premises is part of the wider Kalgoorlie Consolidated Gold Mines (KCGM) operation.

2.3 Part IV of the EP Act

Ministerial Statement 782 (MS 782) was granted for the Fimiston Gold Mine Operations Extension (Stage 3) and Mine Closure Planning on 29 January 2009. However, the scope of the Fimiston Processing Plant Revitalisation was not referred to the Environmental Protection Authority (EPA) for assessment, as it was considered that the impacts associated with the increase in production capacity at the processing plant can be adequately managed under Part V of the EP Act (Refer to Attachment 3 of MS 782).

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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 *Guideline: Risk assessments* (DWER 2020b).

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 construction and operation which have been considered in this amendment report are detailed in Table 2 below. Table 2 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 2: Works Approval Holder controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Dust	Construction of processing plant infrastructure Vehicle movements	Air / windborne pathway	<ul style="list-style-type: none"> The use of water carts on site to minimise the dust generated by vehicle movement. Clearing and other dust-generating activities are conducted during suitable conditions. Visual dust inspections are conducted daily.
Noise	Construction of processing plant infrastructure Vehicle movements	Air / windborne pathway	<ul style="list-style-type: none"> A 15m high earth sound bound has been constructed between the Fimiston mining area and the Kalgoorlie-Boulder township. Works approval holder utilises five "real-time" noise monitoring sites within the Kalgoorlie townsite. Compliance environmental noise monitoring in accordance with MS 782 is completed each quarter by specialist noise consultants using a manned sound level meter. The processing plant is located to the east of the ROM Pad, at a lower elevation, acting as a noise mitigation for all processing equipment except the crusher.
Commissioning and Time Limited Operation			
Dust	Crushing of material, vehicle movements, lift-off from	Air / windborne pathway	<ul style="list-style-type: none"> Dust control on the crushing circuit consists of water sprays on the ROM bin, dust extraction units on the crusher discharge and screen discharge chute.

Emission	Sources	Potential pathways	Proposed controls
	stockpiles		<ul style="list-style-type: none"> Dust extraction will be run by a baghouse which is located next to the crushers, adjacent to the ROM pad. All transfer points will be equipped with rubber sealing and skirting to contain dust generated. The new crushed ore stockpile will have a stockpile cover to mitigate fugitive dust. Plan activities in high-risk areas (e.g. digging/loading) during day shift when fugitive dust can be seen and managed, where practicable. Use of additional dust control measures (i.e. a dust binding agent), where necessary. Visual dust inspections are conducted daily. The use of water carts on site to minimise the dust generated by vehicle movement. In accordance with Condition 7-1 of MS 782, the applicant proactively manage dust at its Fimiston Operations (under its Fimiston Air Quality Management Plan) to ensure that the 24-hour average PM₁₀ levels at designated dust monitoring points within the town of Kalgoorlie Boulder are less than 50 µg/m³. Continuous PM₁₀ dust monitoring is undertaken at seven monitoring locations stations within the Kalgoorlie-Boulder township, using Thermo Beta Attenuation Monitor (BAM) samplers, fitted with PM₁₀ inlets.
Noise	Crushing of material, operation of machinery	Air / windborne pathway	<ul style="list-style-type: none"> 15m high earth sound bund has been constructed between the Fimiston mining area and township. KCGM utilizes five "real-time" noise monitoring sites within the Kalgoorlie townsite. Compliance environmental noise monitoring in accordance with MS 782 is completed each quarter by specialist noise consultants using a manned sound level meter. The processing plant is located to the east of the ROM Pad, at a lower elevation, acting as a noise mitigation for all processing equipment except the crusher. An environmental noise assessment for the processing plant revitalisation was completed to ensure that predicted noise

Emission	Sources	Potential pathways	Proposed controls
			levels remained under those prescribed in the Environmental Protection (Fimiston Gold Mine Noise Emissions) Approval 2016.
Air emissions – Mercury and VOCs	New carbon regeneration kiln	Air / windborne pathway	<ul style="list-style-type: none"> The new carbon regeneration kiln will be fitted with a kiln off-gas cleaning circuit (KOGCC), consisting of a wet scrubber (Venturi and Packed Bed) and carbon filter beds. This will reduce mercury and volatile organic compound (VOC) emissions. Mercury emissions from the wider KCGM operations are reported annually to DWER via the national pollution inventory (NPI). Air emission monitoring conditions are not on the premises operating licence. The applicant has completed emissions modelling based on three different scenarios regarding the processing plant revitalisation. The results of the assessment show that predicted ground level concentrations (GLCs) for all compounds are below the relevant ambient air quality criteria at all locations (onsite and offsite) within the modelled domain for all scenarios. A post-commissioning air emission sampling program will be implemented to verify air emission model results. The applicant has committed to providing this to the department prior to commissioning of the revitalised processing plant. Mercury emissions are managed in accordance with Fimiston Air Quality Management Plan (FAQMP) required under Condition 7 of MS 782. <p>The FAQMP outlines, in Section 4.1.2, that the existing KOGCC is designed to capture more than 90% of gaseous mercury emissions from the carbon regeneration kilns. No mercury monitoring program has been outlined within the FAQMP. A mercury balance will be developed using post-commissioning monitoring data to determine whether the plant meets the design criteria of 90% reduction in total gaseous mercury emissions.</p>
Contaminated stormwater	Run-off from within processing areas	Overland flow and discharged offsite	<ul style="list-style-type: none"> Currently, the processing facility drains to the south of the plant into three water catchment ponds providing a total of 24,450 m³ of containment, in addition to the bunds and sumps around existing

Emission	Sources	Potential pathways	Proposed controls
			<p>infrastructure. This will be retained unmodified.</p> <ul style="list-style-type: none"> In addition to the three existing 24,450 m³ event ponds, an additional catchment pond (Event Pond) with 23,280 m³ of storage capacity will be constructed. The pond will be HDPE-lined. The required volume for the additional catchment pond was calculated based on the area of the processing plant facility in order to accommodate a 1 in 25-year rain event (96 mm in 24 hours) and 110% the volume of the largest vessel containing solution, with an additional 15% storage volume as contingency. Recovery pumps will be fitted to the ponds, including telemetry to pump into the raw water dams to be used in the processing plant.
Spills and leaks of hydrocarbons / chemicals	Plant equipment, storage of hydrocarbons / chemicals within plant precinct	Direct discharge to land -impacting soils/groundwater	<ul style="list-style-type: none"> Secondary containment infrastructure (e.g. bunds and sumps) will be constructed for all infrastructure containing solution. New plant components will be constructed to meet relevant Australian Standards and installed within concrete hardstand and bunded areas. All hydrocarbons storage areas will be adequately bunded to ensure any spills or leaks are contained. Spill kits are located in hydrocarbon storage areas. In the event of a spill, contaminated soil is collected and removed to the bioremediation area for treatment. Education and training is provided to personnel working on site regarding the correct storage and management of hydrocarbons and chemicals, as well as procedures for clean-up and remediation in the event of a spill.
Potentially impacted hypersaline water	Operation of new Saline Water Dam and associated pipeline infrastructure	Overtopping	<ul style="list-style-type: none"> Minimum freeboard of 500 mm will be maintained (approximately 8,000 m³ additional capacity prior to overtopping). Secondary containment will be provided through scour pit (approximately 5,640 m³). Freeboard and scour pit will provide sufficient capacity to contain a 1-in-25-year rainfall event.

Emission	Sources	Potential pathways	Proposed controls
			<ul style="list-style-type: none"> Inclusion of telemetry equipment and recovery pump.
		Seepage	<ul style="list-style-type: none"> The pond will be HDPE-lined.
		Pipeline leak and failure	<ul style="list-style-type: none"> Pipeline to be installed in pipeline corridor with bunding and scour pits. HDPE pipeline. Daily pipeline inspections. Pipelines to be equipped with telemetry equipment to identify leaks,
Tailings	Increased ore processing resulting in increase in tailings waste	Discharge to land; Seepage.	<p><u>Outside scope of works approval</u></p> <p>This emission has already been assessed as existing tailings storage facilities (TSFs) have capacity for increased tailings production. Embankment raises to existing TSFs have been authorised under licence L6420/1988/14, with two new cells authorised under works approval W6496/2021/1 as part of the Fimiston TSF II Extension (Cells E and F).</p> <p>Additional tailings storage after this will need to be approved by the Environmental Protection Authority (EPA) under Part IV of the EP Act and DWER under Part V of the EP Act for the construction of new TSF cells.</p>

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020b), the Delegated Officer has excluded employees, visitors, and contractors of the Works Approval 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 and Figure 2 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 2020a)).

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

Human receptors	Distance from prescribed activity
Residents within the City of Kalgoorlie - Boulder	<p>Town of Kalgoorlie is located at western edge of Fimiston Open Pit (Super Pit).</p> <p>The premises is located approximately 1.8 km to 2.1 km east of the closest residential properties (Super Pit is located between the premises and residential properties).</p>
Environmental receptors	Distance from prescribed activity
Remnant native vegetation	Vegetation community surrounding the premises is characterised by open woodland comprising <i>Corymbia calophylla</i> , <i>Eucalyptus</i>

	<p><i>wandoo</i> and <i>E. camaldulensis</i>. This vegetation community is common and widespread in the region. There were no conversation significant flora species found.</p> <p>There are remnant vegetation occurring east and north of the premises, with the closest being approximately 1.6 km from the premises.</p> <p>However, remnant vegetation in the area is sparse and relatively degraded due to historical activities and the wider KCGM operation</p>
Underlying groundwater	<p>Local groundwater depth ranges between 5 meters below ground level (mbgl) to 20 mbgl and is hypersaline. Data was obtained from compliance monitoring bores around Fimiston operations tailings storage facility.</p> <p>Groundwater in the region may be used for non-potable purposes, thought there is unlikely to be any third-party groundwater users in the vicinity of the premises due to the siting of the wider KCGM operation.</p>

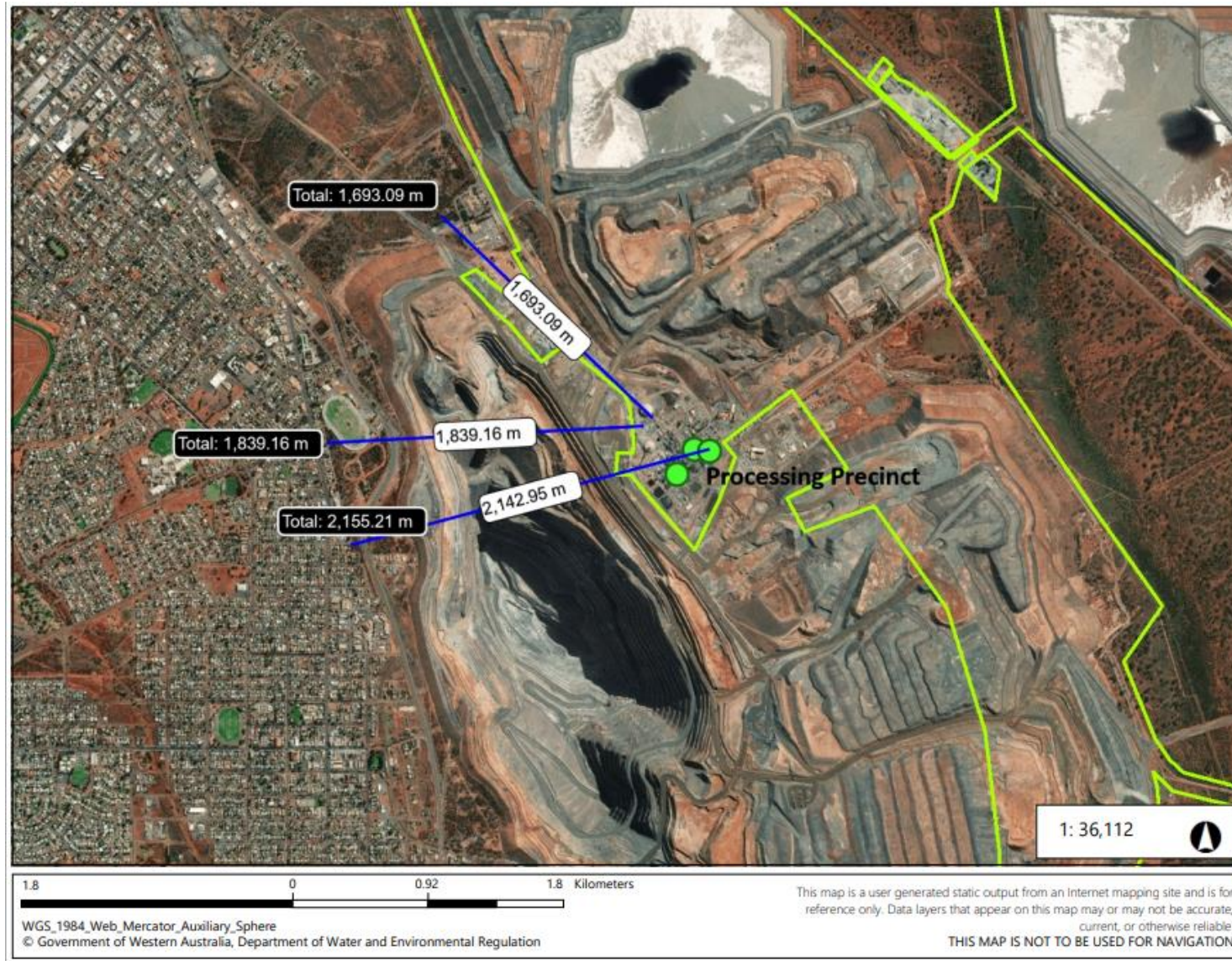


Figure 2: Fimiston Processing Plant – Distance from Receptors

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IR-T15 Amendment report template v3.0 (May 2021)

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020b) 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 in-complete they have not been considered further in the risk assessment.

Where the Works Approval 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 Works Approval Holder’s proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the Works Approval 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 Works Approval W6689/2022/1 that accompanies this Amendment Report authorises construction, environmental commissioning and time-limited operations. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the Premises i.e. category 5 activities. A risk assessment for the operational phase has been included in this Amendment Report, however licence conditions will not be finalised until the department assesses the licence application.

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

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Construction								
Construction of new ore processing plant infrastructure and saline water dam	Dust	Pathway: Air / windborne pathway Impact: Impacts to human health and amenity	Residential premises in Kalgoorlie township Native vegetation	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	Condition 1: Dust suppression using water trucks and routine inspection	The proposed changes in the 2023 works approval amendment application will result in negligible change to dust emissions during construction. The Delegated Officer considers the risk rating for dust from construction activities impacting sensitive receptors to be unchanged and the proposed controls to be adequate for managing dust emissions from impacting sensitive human and environmental receptors. Furthermore, the construction works are likely to be undertaken over a short period of time.
Earthworks Vehicle movement	Noise		Residential premises in Kalgoorlie township	Refer to Section 3.1	C = Slight L = Unlikely Low Risk	Y	N/A	The Delegated Officer considers the proposed controls, which are currently being implemented for the wider KCGM operations under MS 782, to be adequate for managing noise emissions from impacting sensitive human receptors. Furthermore, the construction works are likely to be undertaken over a short period of time.
Commissioning and Operation (including time-limited-operations operations)								
Operation of new ore processing plant infrastructure. (Increase in production throughput from 23.5 mtpa to 30 mtpa)	Dust	Pathway: Air / windborne pathway Impact: Impacts to human health and amenity	Residential premises in Kalgoorlie township	Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Y	Condition1: Primary crusher circuit design and construction requirements Condition 7: Environmental commissioning requirements Condition 14: Primary crusher circuit operational requirement	The proposed changes in this works approval amendment application will result in negligible change to dust emissions during operation. The outcomes of the Decision Report (DWER 2022) remain relevant: “ <i>The Applicant’s proposed infrastructure controls (i.e. water sprays on ROM bin, dust extraction units on the crusher discharge and screen discharge chute, dust collection via bag house, transfer points to be equipped with rubber sealing and skirting to contain dust and cover on the crushed ore stockpile) are sufficient to control the increase in dust emissions generated by the new infrastructure. These controls will be conditioned within works approval, in accordance with Guideline: Risk Assessments (DWER 2020b).</i> <p><i>In accordance with Condition 7-1 of MS 782, the applicant proactively manages dust at its Fimiston Operations (under its Fimiston Air Quality Management Plan) to ensure that the 24-hour average PM₁₀ levels at designated dust monitoring points within the town of Kalgoorlie-Boulder is less than 50 µg/m³.</i></p> <p><i>Continuous PM₁₀ dust monitoring is undertaken at seven monitoring locations stations within the town, using Thermo Beta Attenuation Monitor (BAM) samplers, fitted with PM₁₀ inlets.</i></p> <p><i>As such, no additional operational controls are required to manage dust emissions during commissioning and time limited operations.”</i></p>
	Noise				C = Moderate L = Possible Medium Risk	Y	None.	A noise assessment was provided to support the Licence Holder's application for works approval W6689/2022/1 for the upgraded processing plant. The 2022 noise assessment concluded that there would be an increase in noise level by approximately 3 dB for the processing operations, due to the introduction of the new crusher, additional ball mill and other associated plant. W6689/2022/1 provides a full risk assessment and discussion as to why an increase of 3 dB is acceptable (DWER 2022). The department assessed the risk of noise emissions from operation of the upgraded processing plant impacting receptors as medium, with a “moderate” consequence and “possible” likelihood. The works approval holder has provided an updated noise assessment (Herring Storer Acoustics 2023) to

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
								<p>support this application for a works approval amendment. Results of the updated modelling were consistent with the 2022 noise assessment, indicating a 3 dB increase in processing noise levels on existing operations.</p> <p>Although there is an increase in noise levels for the processing operations, the predicted noise levels of the upgraded processing plant (up to 30 mtpa) without the inclusion of mining operations remains significantly below the assigned noise levels at the regulatory reference locations. As the processing operations' noise emissions are at least 10 dB lower than the mining noise levels, the upgraded processing plant is not likely to contribute significantly to the overall noise levels at receivers.</p> <p>The applicant currently has approval under Regulation 17 of the <i>Environmental Protection (Noise) Regulations</i> 1997 to allow the emission of noise from the KCGM operations to vary from standard assigned noise levels. The <i>Environmental Protection (Fimiston Gold Mine Noise Emissions) Approval 2016</i> stipulates the approved noise levels for the premises. Requirements of the Regulation 17 approval include the implementation of a noise management plan and continued noise monitoring.</p> <p>The risk rating of noise emissions is therefore unchanged for the site.</p>
	Air emissions from stacks – mercury and VOCs	<p>Pathway: Air / windborne pathway</p> <p>Impact: Impacts to human health</p>			<p>C = Minor</p> <p>L = Unlikely</p> <p>Medium Risk</p> <p>Refer to Section 3.3</p>	Y	<p>Condition1: Carbon regeneration kiln design and construction requirements</p> <p>Condition 7: Environmental commissioning requirements</p> <p>Condition 9: Authorised emission point during environmental commissioning</p> <p>Condition 14: Carbon regeneration kiln operational requirement</p> <p>Condition 15: Authorised emission point during time limited operation</p> <p>Condition 16: Post-commissioning air emission monitoring requirements</p>	Refer to Section 3.3.
	Contaminated stormwater	<p>Pathway: Overland runoff during rainfall event</p> <p>Impact: Impact to ecosystem health and amenity</p>	Native vegetation	Refer to Section 3.1	<p>C = Minor</p> <p>L = Rare</p> <p>Low Risk</p>	Y	<p>Condition1: Stormwater management infrastructure design and construction requirements</p> <p>Condition 7: Environmental commissioning requirements</p> <p>Condition 14: Stormwater management infrastructure design and construction requirements</p>	<p>The proposed changes in this works approval amendment application will result in negligible change to stormwater emissions during operation.</p> <p>The outcomes of the Decision Report (DWER 2022) remain relevant:</p> <p><i>“The Applicant’s proposed infrastructure controls (i.e. existing and proposed drainage features and catchment pond, proposed freeboard, and reuse of stormwater into processing circuit) are sufficient to control overland flow of contaminated stormwater. These controls will be conditioned within the works approval, in accordance with Guideline: Risk Assessments (DWER 2020b).</i></p> <p><i>As such, no additional operational controls are required to manage contaminated stormwater emissions during commissioning and time limited operations.”</i></p>
	Hydrocarbon / processing reagents	<p>Pathway: Loss of containment, leaks and spills</p> <p>Impact: Discharge to land, resulting in ecosystem disturbance.</p>	<p>Surrounding soils and remnant native vegetation</p> <p>Groundwater</p>	Refer to Section 3.1	<p>C = Slight</p> <p>L = Unlikely</p> <p>Low Risk</p>	Y	<p>Condition1: Fimiston processing plant design and construction requirements</p> <p>Condition 7: Environmental commissioning requirements</p> <p>Condition 14: Fimiston processing plant design and construction requirements</p>	<p>The proposed changes in this works approval amendment application will result in negligible change to hydrocarbon/processing reagents related emissions.</p> <p>The outcomes of the Decision Report (DWER 2022) remain relevant:</p> <p><i>“Applicant’s proposed infrastructure controls (i.e. secondary containment infrastructure, including bunds and sumps, spill kits, clean-up procedures) are sufficient to control loss of containment of hydrocarbon and processing reagents.</i></p> <p><i>These controls will be conditioned within the works approval, in accordance with Guideline: Risk Assessments (DWER 2020b).</i></p> <p><i>As such, no additional operational controls are required to manage loss of containment of hydrocarbon / processing reagent during commissioning and time limited operations.”</i></p>
Operation of saline water dam and associated pipeline infrastructure	Potentially impacted hypersaline water	<p>Pathway: Overtopping</p> <p>Impact: Discharge to land, resulting in ecosystem</p>	<p>Surrounding soils and remnant native vegetation</p> <p>Groundwater</p>	Refer to Section 3.1	<p>C = Minor</p> <p>L = Unlikely</p> <p>Medium Risk</p>	Y	<p>Condition1: Fimiston processing plant design and construction requirements</p> <p>Condition 7: Environmental</p>	<p>The construction and operation of the saline water dam was not assessed and authorised in the existing works approval.</p> <p>Applicant’s proposed controls (i.e., freeboard, spillway, scour sump, liner) are sufficient to control emission of potentially impacted hypersaline water.</p>

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
		disturbance.					commissioning requirements	<p>These controls will be conditioned within the amended works approval, in accordance with <i>Guideline: Risk Assessments</i> (DWER 2020b).</p> <p>As such, no additional operational controls are required to manage emission of potentially impacted hypersaline water during commissioning and time limited operations.</p>
		Pathway: Seepage from saline water dam Impact: Impact to native vegetation			C = Minor L = Unlikely Medium Risk	Y	Condition 14: Fimiston processing plant design and construction requirements	
		Pathway: Pipeline leaks and/or pipeline failure Impact: Discharge to land, resulting in ecosystem disturbance.			C = Minor L = Rare Low Risk	Y		

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

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

3.3 Detailed risk assessment for air emissions during time limited operations

3.3.1 Background and Receptors

In 2022, Kalgoorlie Consolidated Gold Mines Pty Ltd was granted works approval W6689/2022/1 for the upgrade of the Fimiston Processing Plant, increasing production capacity from 13 million tonnes per annum (Mtpa) to 23.5 Mtpa (DWER 2022). The Decision Report (DWER 2022) associated with works approval W6689/2022/1 remains relevant to this assessment and is available online on the department's website.

Prior to the construction of the upgraded plant, the department recently received an application to amend the existing works approval to modify proposed infrastructure for the upgrade works to enable production capacity to reach 30 Mtpa, instead of the authorised 23.5 Mtpa.

As part of the amendment, the Works Approval Holder has proposed changes to the design of the carbon regeneration kiln stack, including emission mitigation measures. Instead of a 25m-high stack assessed in the existing works approval (DWER 2022), the Works Approval Holder proposed to construct a stack that is 35 m above ground level. Furthermore, the Works Approval Holder also intends implement a Kiln Off-Gas Cleaning Circuit (KOGCC).

To support the expansion to 30 Mtpa, the Works Approval Holder updated the air quality assessment for the revised upgraded plant (Ramboll 2023). The air quality assessment predicted that the proposal to increase the plant capacity to 30 Mtpa above the existing approval of 23.5 Mtpa will result in additional air quality emissions.

The Delegated Officer has considered the findings of the updated air quality assessment, in assessing the risk of stack air emissions from the premises to nearby residential receptors. The premises is located close to the town of Kalgoorlie-Boulder, with residences approximately 2 km from the processing plant precinct.

Consistent with the Decision Report (DWER 2022), the primary contaminant of concern to air quality is mercury. Mercury is known to be contained within coloradoite, one of a suite of telluride minerals that are widely distributed through the Golden Mile lodes and represented <0.00014% of the ore mined from the Fimiston Open Pit and Mt Charlotte Underground Mine, which feeds into the Fimiston Processing Plant at the premises.

Ministerial Statement 782 requires the applicant to implement an air quality management plan, which is also considered in this risk assessment (KCGM 2019).

3.3.2 Comparison of predicted stack air emissions between existing works approval (23.5 Mtpa) and proposed amendment (30 Mtpa)

Four scenarios have been modelled in the initial air quality assessment for an increase in production capacity to 23.5 Mtpa (Ramboll 2022) and three scenarios have been modelled in the updated air quality assessment for the increase to 30 Mtpa (Ramboll 2023). The scenarios modelled for Mercury and Benzene in Ramboll (2023) are detailed in Table 5 with the model results assessed previously (DWER 2022) provided in Table 6. For this works approval amendment application, the Works Approval Holder is proposing to implement Scenario 2, utilising a 35 m stack (Ramboll 2023).

The mercury and benzene emissions under the 23.5 Mtpa assessment, based on a stack height of 20 metres, are shown in Figure 3a and Figure 3c, respectively (DWER 2022). The updated emissions in this proposed amendment for mercury and benzene emissions, based on a stack height of 35 metres, are shown in Figure 3b and Figure 3d, respectively.

Table 5: Modelled Scenarios

Scenario Number; Emissions reduction equipment	Description of stacks modelled and the emission source	
	23.5 Mtpa plant (existing W6689/2022/1)	30 Mtpa plant (proposed amendment to W6689/2022/1)
0 (Current operations) Existing KOGCC	<ul style="list-style-type: none"> Existing 20.655 m stack (Stack 1): emissions from the combined concentrate and flotation tail leach sources. <p>Stack 1 location: 357401 mE, 6595193 mN</p>	<ul style="list-style-type: none"> Existing 20.65 m stack (Stack 1): emissions from the combined concentrate and flotation tail leach sources. Main stack, 15.3 m height: emissions from the Gold Room (this emission point was not previously considered in the 23.5 Mtpa plant). <p>Stack 1 location: 357401 mE, 6595193 mN Main stack location: 357485 mE, 6595354 mN</p>
1 Existing KOGCC and proposed additional KOGCC – both with RTO	<ul style="list-style-type: none"> Stack 1: emissions from concentrate carbon sources only. New stack (Stack 2): emissions from flotation trail carbon sources only, stack height (20.65m). <p>Stack 2 location: 357587 mE, 6595338 mN</p>	<ul style="list-style-type: none"> Stack 1 emissions: from concentrate carbon sources only. Stack 2 emissions: from flotation trail carbon sources only, three different stack heights: 30 m, 35 m, 40 m. Main stack, 15.3 m height: emissions from the Gold Room. <p>Stack 2 location: 357678 mE, 6595337 mN</p>
2 Existing KOGCC with RTO and proposed additional KOGCC with no RTO	<ul style="list-style-type: none"> Stack 1: emissions from concentrate carbon sources only. Stack 2: emissions from flotation trail carbon sources only; three stack heights: 20.65 m, 30 m, 35 m. 	<ul style="list-style-type: none"> Stack 1: emissions from concentrate carbon sources only. Stack 2: emissions from flotation trail carbon sources only, three stack heights: 30 m, 35 m, 40 m. Main stack, 15.3 m height: emissions from the Gold Room.
3 Existing KOGCC with an RTO and proposed additional KOGCC with no RTO, and with an electric kiln is used instead of gas-fired kiln)	<ul style="list-style-type: none"> Stack 1: emissions from concentrate carbon sources only. Stack 2: emissions from flotation trail carbon sources only, stack height (20.65m). 	None

Results indicated that the maximum predicted ground level concentrations (GLC) of the emission profile from the kiln stacks was increased as a result of increasing processing throughput from 23.5 Mtpa to 30 Mtpa. This increase in emission concentrations was also observed at offsite sensitive receptors, despite increasing the proposed stack height to 35 metres. Predicted mercury concentrations had increased more significantly, compared to benzene concentrations (Table 6).

The predicted GLCs modelled for the 30 Mtpa plant remained relatively low compared to the relevant ambient air quality guideline values (AGVs) (Table 6). Despite the significant increase observed as part of the proposed upgrades to 30 Mtpa, predicted mercury GLCs were less than 1% of the relevant mercury AGV on an hourly and annual basis. Despite a smaller level of increase observed for benzene GLCs in increasing processing throughput to 30 Mtpa, the predicted concentrations were higher, in relation to the relevant AGV, with hourly average benzene GLC being 11% of the AGV.

Similar to the previously assessed design, the Works Approval Holder has not proposed to include a regenerative thermal oxidizer (RTO) in the proposed KOGCC. Emission testing has indicated that the additional of an RTO will likely result in significant reductions in benzene emissions (Ramboll 2023). Indeed, this was also reflected in modelling outputs (i.e., Scenario 1) (Ramboll 2023), though benzene GLCs would not exceed relevant AGV even with the proposed exclusion of an RTO in the KOGCC. Nevertheless, the Works Approval Holder has committed to allowing adequate space such that an RTO can be retrofitted into the proposed

KOGCC, if required at a later date.

In relation to the previous assessment of air emissions at a processing throughput of 23.5 Mtpa, the department concluded that:

- When setting a stack height of 35 m and excluding an RTO in the proposed KOGCC design, the predicted onsite and offsite GLCs for mercury and benzene in the current assessment at 30 Mtpa are greater than those for the 23.5 Mtpa plant;
- However, predicted GLCs for mercury and benzene were still within the respective ambient air quality guidelines (AGVs).

Table 6 : Predicted ground level concentrations (GLC) of mercury and benzene under various infrastructure scenarios

Contaminant	One-hour average AGV ¹	Maximum predicted ground level concentrations (GLC) in modelled domain (µg/m ³) ^{2,3}	
		Initial assessed scenario – 20m stack, operation of existing KOGCC with RTO and proposed KOGCC with no RTO	Proposed amended scenario – 35m stack, KOGCC Operation of existing KOGCC with RTO and proposed KOGCC with no RTO
Mercury	0.55	0.0061 (1.1%)	0.027 (4.9%)
Benzene	29	14.28 (49.3%)	16.492 (56.9%)
Contaminant	Annual average AGV ¹		
Mercury	0.18	0.0002 (0.09%)	0.001 (0.4%)
Benzene	9.6	0.46 (4.8%)	1.04 (10.8%)
Contaminant	One-hour average AGV ¹	Maximum predicted GLCs at offsite sensitive receptors (µg/m ³) ^{2,3,4}	
Mercury	0.55	0.00078 (0.14%)	0.0047 (0.8%)
Benzene	29	1.73 (5.97%)	3.2 (11.0 %)
Contaminant	Annual average AGV ¹		
Mercury	0.18	5.62E-06 (0.003%)	0.000048 (0.03%)
Benzene	9.6	0.0139 (0.145%)	0.03 (0.3%)

Note 1: AGV means air quality guideline values.

Note 2: GLC exceedances are coloured in red.

Note 3: Percentage of AGV included in brackets.

Note 4: Locations of offsite sensitive receptors were not specified.

3.3.1 Risk assessment for mercury and benzene air emissions from carbon regeneration kiln and gold room stack – Increase to 30 Mtpa output

The Delegated Officer considers that there is no material change in the risk rating for stack air emissions impacting sensitive receptors as a result of the proposed operation of the upgraded processing plant with production capacity of 30 Mtpa, compared to the existing authorisation for the 23.5 Mtpa plant upgrade (DWER 2022). The consequence and likelihood of the risk event remains as minor and unlikely, respectively, resulting in a medium risk rating.

It was noted that modifications to the components of the proposed KOGCC were proposed, primarily the replacement of the wet scrubber unit with a fines knock-out box. The knock-out box is intended to have a similar function to the wet scrubber on the existing KOGCC, removing particulates without the introduction of water in the remaining circuit, which can be detrimental to the downstream carbon bed filters. The off-gas condenser functions as a demister, prior to passing through the carbon bed filters.

This modification may introduce uncertainty into the predicted GCLs, as they were measured based on empirical emission rates from the existing KOGCC (which the proposed KOGCC was initially based on). Nevertheless, the Works Approval Holders has indicated that both systems should be designed to meet the design criteria (i.e., at least 90% of total mercury removed from off-gas prior to being emitted at the stack outlet), which has been conditioned in the revised works approval.

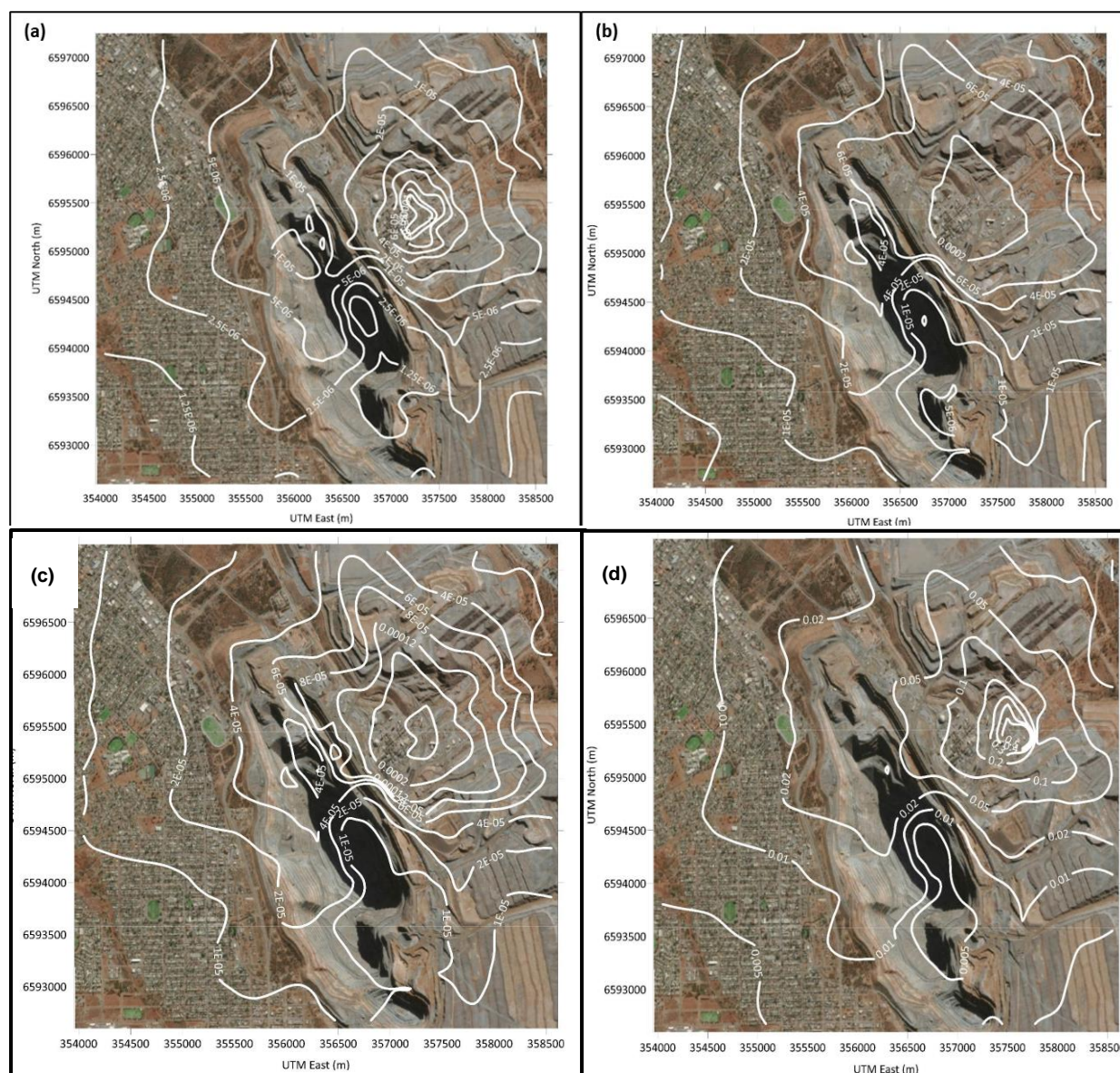


Figure 3a-3d: Modelled Emissions Scenarios – 23.5 Mtpa and 30 Mtpa comparison

Note: Annual average predicted ground level concentration ($\mu\text{g}/\text{m}^3$) of (a) mercury and (c) benzene under Scenario 2 with 20 m stack height based on throughput of 23.5 Mtpa. Annual average predicted ground level concentrations $\mu\text{g}/\text{m}^3$ of (b) mercury and (d) benzene under Scenario 2 with 35 m stack height. Stack height for (b) mercury was not specified.

The Works Approval Holder's proposed controls have been included within the amended works approval, in accordance with the *Guideline: Risk Assessments* (DWER 2020b). Where there

have been changes to the proposed controls, the relevant conditions of the works approval have also been amended.

All emissions of potential concern remain within relevant guideline values and do not present an unacceptable risk to nearby receptors. As such, the Delegated Officer has decided that no additional operational controls are required to manage air emissions from the premises.

4. Consultation

Table 7 provides a summary of the consultation undertaken by the department.

Table 7: Consultation

Consultation method	Comments received	Department response
City of Kalgoorlie - Boulder advised of proposal 8 November 2023.	None received.	N/A
The application was advertised in the West Australian newspaper on 13 November 2023.	None received	N/A
The application was advertised in the Kalgoorlie Miner local newspaper on 15 November 2023.	None received	N/A
Applicant was provided with draft documents on 25 March 2024.	Comments received on 2 May 2024. Refer to Appendix 1.	Refer to Appendix 1. Updated draft documents were provided to the applicant.
Applicant was provided with updated draft documents on 25 June 2024.	Comments received on 16 July 2024, confirming specifications requested by the department.	N/A

5. Conclusion

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

5.1 Summary of amendments

Table 8 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Works Approval as part of the amendment process.

Table 8: Summary of works approval amendments

Condition no.	Proposed amendments
Cover page	Assessed production capacity, premises details (including premise boundary), duration, and works approval history updated.
Condition 1	Design and construction requirements updated for infrastructure in Table 1. Key changes included:

Condition no.	Proposed amendments
	<ul style="list-style-type: none"> Allow for infrastructure at the Fimiston processing plant to be constructed in two stages; Modify equipment/infrastructure specifications of the Fimiston processing plant; Inclusion of a saline water dam for storage of bore water, including those from TSF seepage management borefields; Modify carbon regeneration kiln requirements, including increased stack height to 35 m above ground level.
Condition 2	Extension of infrastructure compliance reporting to 90 calendar days (previously 60 calendar days).
Condition 4	Updated condition for further clarity.
Condition 7	Requirement for notification of environmental conditioning removed. Condition provided an unnecessary administrative burden and was not necessary for risk management.
New condition 7 (former condition 8)	<p>Environmental commissioning requirements updated for infrastructure in Table 2. Key changes included:</p> <ul style="list-style-type: none"> Allow for infrastructure at the Fimiston processing plant to be commissioned in two stages; Inclusion of a saline water dam for storage of bore water.
New condition 9 (former condition 10)	Stack height updated on emission point A3, with details updated on emission point location.
Condition 10 (former condition 11)	Extension to 90 calendar days for submission of environmental commissioning report to CEO (previously 30 calendar days).
Condition 14 (former condition 15)	<p>Environmental commissioning requirements updated for infrastructure in Table 4. Key changes included:</p> <ul style="list-style-type: none"> Allow for infrastructure at the Fimiston processing plant to be operated in two stages; Inclusion of a saline water dam for storage of bore water.
Condition 15 (former condition 16)	Stack height updated on emission point A3, with details updated on emission point location.
Condition 20 (former condition 21)	Extension to 90 calendar days for submission of environmental commissioning report to CEO (previously 60 calendar days).
Definitions	Definition included for 'environmental commissioning'.
Schedule 1 Maps	Figure 1, 2, and 3 updated to include modified premises boundary and site infrastructure.
Schedule 2: Premise boundary coordinates	Updated to include modified premises boundary required to incorporate the new saline water dam.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2019, *Draft Guideline: Air emissions*, Perth, Western Australia.
3. DWER 2020a, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020b, *Guideline: Risk Assessments*, Perth, Western Australia.
5. DWER, 2022, W6689/2022/1 Decision Report, Perth, Western Australia
6. Herring Storer Acoustics 2023, *Kalgoorlie Consolidated Gold Mines Fimiston Mill Project – Environmental Noise Assessment*, Como, Western Australia.
7. Herring Storer Acoustics 2022, *Kalgoorlie Consolidated Gold Mines Fimiston Mill Project – Environmental Noise Assessment*, Como, Western Australia.
8. KCGM, 2019, *Fimiston Air Quality Management Plan*, Western Australia
9. Ramboll 2023, *Fimiston Processing Plant – Mercury and VOC emissions update*, Perth, Western Australia.
10. Ramboll 2022, *Fimiston Processing Plant – Air Quality Assessment*, Perth, Western Australia.

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

Condition	Summary of Works Approval Holder's comment	Department's response
Cover page	Request the Duration date & Date of issue reflects the Date of Amendment, as no works relating to the works approval have commenced and it is possible that the works will not be completed by the existing expiry date of the works approval (11 October 2027).	<p>The Delegated Officer has granted an extension of two years, such that the revised expiry date of the works approval is 11 October 2029.</p> <p>As works relating to the works approval have not yet commenced at the time of this amendment, this extension does not materially alter the outcomes of the existing risk assessment.</p> <p>The Premises Details have also been updated to include additional mining tenements as part of the modified premises boundary.</p>
Condition 1	<p>Request Table 1 be updated to:</p> <ul style="list-style-type: none"> Allow for infrastructure at the Fimiston processing plant to be constructed in two stages; Construct a saline water dam for storage of bore water, including those from TSF seepage management borefields; Modify components of the KOGCC associated with the proposed carbon regeneration kiln, including omission of RTO and replacement of wet scrubber with a fines knock-out box, off-gas condenser, and mist eliminator. 	<p>Updated Table 1 included in revised works approval.</p> <p>The department has updated the risk assessment to assess emissions and discharges associated with the construction, environmental commissioning, and time limited operation of the saline water dam, as well as modifications to the components of the KOGCC.</p> <p>Construction of the two-staged Fimiston processing plant does not require an updated risk assessment as it is administrative and does not materially alter the outcomes of the existing risk assessment.</p>
Condition 2	Request timeframe for submission of environmental compliance report be amended to within 90 calendar days. The extended timeframe was requested to allow sufficient time to prepare and submit the required documentation, as there will be multiple third parties involved in the construction stage.	Condition 2 amended to allow for 90 calendar days. This amendment does not materially alter the outcomes of the existing risk assessment.
Condition 3	Request environmental compliance report requirement be amended to allow for submission of Issued for Construction (IFC) drawings, as an alternative to as-constructed plans.	<p>The requirement to provide as-constructed plans will remain. This is a standard condition for works approvals.</p> <p>IFC drawings should not be provided as part of the environmental compliance report. IFC drawings should be provided during the</p>

Condition	Summary of Works Approval Holder's comment	Department's response
		<p>assessment of a works approval application. The purpose of as-constructed plans during compliance reporting is to verify whether infrastructure has been constructed as intended.</p> <p>An IFC drawing may be treated as an as-constructed drawing where it is shown as such by the certifying engineer (i.e., infrastructure did not deviate from design).</p>
Condition 7 (former condition 7 – now removed)	<p>Request Condition 7 and Table 2 be removed.</p> <p>Given the multi-staged commissioning of various items of infrastructure that will occur at different times, the Works Approval Holder stated that the notification requirement would result in unnecessary/duplicative reporting and an administrative burden.</p> <p>The Works Approval Holder is unsure of the environmental risk being managed by receiving a significant number of notifications before and after commissioning, considering that an Environmental Commissioning Plan will be prepared and submitted at least three months prior to the commencement of environmental commissioning as per condition 4.</p>	<p>Condition has been removed.</p> <p>With staged commissioning authorised under the revised works approval, the department agrees the condition is not required as other environmental commissioning has been adequately managed by other conditions.</p>
New condition 7 (former condition 8)	<p>Request Table 2 be updated to:</p> <ul style="list-style-type: none"> Allow for infrastructure at the Fimiston processing plant to be commissioned in two stages; Allow for commissioning of the saline water dam. 	<p>Updated Table 2 included in revised works approval.</p> <p>The department has updated the risk assessment to assess emissions and discharges associated with the construction, environmental commissioning, and time limited operation of the saline water dam, as well as modifications to the components of the KOGCC.</p> <p>Construction of the two-staged Fimiston processing plant does not require an updated risk assessment as it is administrative and does not materially alter the outcomes of the existing risk assessment.</p>
Condition 10 (formerly condition 11)	Request timeframe for submission of environmental compliance report be amended to within 90 calendar days. The extended timeframe was requested to allow sufficient time to prepare and submit the required documentation, as there will be multiple third parties involved in the construction stage.	<p>Condition 10 amended to allow for 90 calendar days. This amendment does not materially alter the outcomes of the existing risk assessment.</p> <p>In addition, the Delegated Officer has also amended the relevant timeframe for the submission of the time limited operation report to be 90 calendar days as well, under condition 20. This was done to encourage consistency in expectations for the submission requirements of relevant compliance documentation throughout the works approval.</p>
Condition 14 (formerly condition 15)	Request Table 4 be updated:	Updated Table 4 included in revised works approval.

Condition	Summary of Works Approval Holder's comment	Department's response
15)	<ul style="list-style-type: none"> Allow for infrastructure at the Fimiston processing plant to be operated in two stages; Allow for time limited operation of the saline water dam. 	<p>The department has updated the risk assessment to assess emissions and discharges associated with the construction, environmental commissioning, and time limited operation of the saline water dam, as well as modifications to the components of the KOGCC.</p> <p>Construction of the two-staged Fimiston processing plant does not require an updated risk assessment as it is administrative and does not materially alter the outcomes of the existing risk assessment.</p>
Definitions (Table 6)	<p>Request amendment to the definition of 'environmental commissioning' and inclusion of definition for 'pre commissioning', as follows:</p> <p>environmental commissioning - "means an activity or sequence of activities undertaken after pre commissioning has demonstrated the integrity of the plant and equipment. The purpose of commissioning is to test equipment, infrastructure, and processes after the introduction of ore, to confirm design specifications, optimise process conditions, and to monitor/validate emissions or discharges in order to establish a steady-state operation".</p> <p>pre commissioning - "means an activity or sequence of activities undertaken after construction (but prior to commissioning) to test equipment and infrastructure for functionality, and for any installation defects or failure. Examples include hydraulic/water testing of vessels, tanks, ponds, and pipelines; electrical component testing; and liner integrity tests for water storage facilities and containment ponds.</p>	<p>The department has generally supported the revised definition of environmental commissioning. Slight modifications were made to the definition to:</p> <ul style="list-style-type: none"> Specify timing of environmental commissioning to also include 'during' the introduction of ore, and not just 'after', as the introduction of ore into a process may result in emissions and discharges to the environment, regardless of whether or not it has reached steady state. Specify processing of material not limited to ore, as some of the infrastructure authorised for environmental commissioning are not part of the ore processing circuit (e.g., saline water dam, which handles hypersaline water). <p>The department generally supported definition of pre-commissioning and has included it in refining the definition of environmental commissioning. The definition for pre-commissioning was not explicitly listed in Table 6, as the term is not referenced in the works approval conditions.</p>
Schedule 1: Maps	Works Approval Holder has provided updated figures to reflect modified premises boundary and revised site infrastructure.	Revised Figure 1, 2, and 3 included in revised works approval.
Schedule 2: Prescribed premises coordinates	Works Approval Hoder has provided updated coordinates to reflect modified premises boundary.	Schedule 2 updated in revised works approval.