



## Application for Works Approval

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

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**Works Approval Number** W6525/2021/1

**Applicant** Greenstone Resources (WA) Pty Ltd

**ACN** 100 341 599

**File Number** DER2021/000040

**Premises** King of the Hills Gold Project  
Power Station  
Part of M37/90 and M37/547  
LEONORA WA 6438

As defined by the premises map in Schedule 1 and the coordinates in Schedule 3 of the Works Approval.

**Date of Report** 2/06/2021

**Proposed Decision** Works approval granted

**Chris Malley**

**Manager, Process Industries**

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

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## 1. Decision summary

This Decision Report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the King of the Hills Gold Project power station approximately 27 km north west of Leonora (the premises). As a result of this assessment, Works Approval W6525/2021/1 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this Decision 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 and overview of premises

Greenstone Resources (WA) Pty Ltd (the applicant) submitted a works approval application received by DWER on 14 January 2017 to establish a gas-fired power station at the King of the Hills (KoTH) Gold Project situated approximately 27 km northwest of the town of Leonora.

The proposed power station will be constructed with a maximum capacity of 45.3 megawatts (MW) and a maximum operating output of 27 MW over two stages. Stage 1 of the proposed power station will comprise the installation of 7 gas-fired generators which will provide an operating output of 16.5 MW, along with their supporting infrastructure. Stage 2 will comprise the installation of an additional 4 gas-fired generators which will increase the operating output to 27 MW. The applicant intends to establish Stage 2 if required to support power demands from the expanded KoTH Gold Project. Power will be distributed to the mine site through transformers within the power station and overhead and underground powerlines. The scope of assessment for this application includes emissions and discharges from both Stage 1 and Stage 2.

The King of the Hills (KoTH) Gold Project is located on the Tarmoola Pastoral Lease where mining operations commencing in 1990. The mine was operational for several years, before being placed into care and maintenance. The KOTH Gold Project has been previously owned by various entities and is now owned by the applicant who intends to expand it to be an open pit and underground mine and conventional gold recovery plant.

Expansion of the KoTH Gold Project is to be undertaken in stages. Licence L8345/2009/3, for the operation of a crushing and screening plant and mine dewatering activities, is currently held by the applicant. Works approvals W6413/2019/1 (establish a sewage treatment facility and putrescible landfill) and W6426/2020/1 (establish a gold processing plant and recommission tailings storage facilities) are also held by the applicant.

The proposed power station relates to category 52 and the assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in Works Approval W6525/2021/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with the *Guideline: Risk Assessments* (DWER 2020) are outlined in Works Approval W6525/2021/1.

The scope of the proposed key infrastructure / equipment includes:

- Stage 1 - 4 'Jenbacher J624' reciprocating engine gas generators (each with an output of 4.4MW) and 3 'Jenbacher J620' reciprocating engine gas generators (each with an output of 3.36MW);
- Stage 2 - additional 4 'Jenbacher J624' reciprocating engine gas generators;

- 2 diesel powered Cummins QSX15-G8 generators, to be installed during Stage 1 of the project;
- An enclosed building to house the gas fired generators;
- An oil-water separator;
- A self-bunded lubricant oil tank and waste oil tank, each with a capacity of 20,000 litres and a self-bunded diesel tank with a capacity of 68,000 litres; and
- The installation of associated infrastructure, including a high voltage and low voltage switch room, transformers, above and below ground power lines and exhaust and mechanical auxiliary systems for the gas generators.

The difference between the capacity and operating output of the proposed power station will be utilised to maintain power during unplanned outages, support maintenance activities and allow 'de-loading' of the power station during high heat conditions.

### 3. Air quality impact assessment

The applicant commissioned Environmental Technologies and Analytics to undertake an air quality assessment and determine the potential environmental impact of air emissions from the premises on nearby sensitive receptors. The air quality assessment considered Nitrogen Dioxide (NO<sub>2</sub>), Sulfur Dioxide (SO<sub>2</sub>), Carbon Monoxide (CO), particulate matter with an aerodynamic diameter of 10µm or less (PM<sub>10</sub>) and particulate matter with an aerodynamic diameter of 2.5µm or less (PM<sub>2.5</sub>). The potential air quality impacts due to the operation of the premises were predicted through a desktop dispersion modelling study. This study incorporated site-specific meteorological data, an emissions inventory based on the operational information and technical specifications of the gas-fired generators, source characteristics, and the location of the sensitive human receptors.

The scenarios modelled comprised:

1. Stage 1 normal operations; comprising 7 generators (3 x J620 and 4 x J624 generators) operating at a load capacity of 16.5 MW;
2. Stage 2 normal operations; comprising 11 generators (3 x J620 and 8 x J624 generators) operating at a load capacity of 27 MW; and
3. Stage 2 peak capacity operations; comprising 11 generators (3 x J620 and 8 x J624 generators) operating at their peak capacity of 46 MW.

The assessment criteria adopted by the applicant for the air quality assessment are summarised in Table 1 and comprise the *National Environment Protection (Ambient Air Quality) Measure* (NEPM) for NO<sub>2</sub>, SO<sub>2</sub>, CO, PM<sub>10</sub> and PM<sub>2.5</sub> which are appropriate reference criteria.

Modelling was used to predict ground level concentrations at the nearest sensitive human receptors identified as a pastoral residence and shearing shed on the Tarmoola Pastoral Lease. A summary of the 'maximum hourly' and average ground level concentrations at these receptors predicted under the 'Stage 2 peak operations scenario' is included in Table 1. This scenario was considered the worst-case emissions operating scenario as it assumes the premises will operate at a load significantly beyond the premises actual intended load.

As shown in Table 1, the air quality assessment concludes that even under the 'Stage 2 peak operations scenario', the predicted maximum ground level concentrations of NO<sub>2</sub>, SO<sub>2</sub>, CO, PM<sub>10</sub> and PM<sub>2.5</sub> at the modelled sensitive receptors comply with the NEPM air quality criteria. With the exception of predicted maximum 1-hour average NO<sub>2</sub> ground level concentrations (16.64% and 14.14% of NEPM standard at respective receptors), predicted short-term and annual average concentrations are predicted to be less than 1% of NEPM criteria at the respective sensitive receptors.

**Table 1: Predicted ‘maximum hourly’ and average ground level concentrations at modelled receptors from the ‘Stage 2 peak operations scenario’**

Pollutant	NEPM Criteria		Concentration at Receptor			
	Averaging Period	Concentration	Shearing Shed	Percentage of Standard	Tarmoola Station Residence	Percentage of Standard
NO <sub>2</sub>	1-Hour	226 µg/m <sup>3</sup>	37.61 µg/m <sup>3</sup>	16.64%	31.95 µg/m <sup>3</sup>	14.14%
	Annual	56 µg/m <sup>3</sup>	0.29 µg/m <sup>3</sup>	0.52%	0.22 µg/m <sup>3</sup>	0.39%
SO <sub>2</sub>	1-Hour	524 µg/m <sup>3</sup>	4.95 µg/m <sup>3</sup>	0.94%	4.20 µg/m <sup>3</sup>	0.8%
	24-Hour	210 µg/m <sup>3</sup>	0.58 µg/m <sup>3</sup>	0.28%	0.44 µg/m <sup>3</sup>	0.21%
	Annual	52 µg/m <sup>3</sup>	0.04 µg/m <sup>3</sup>	0.08%	0.03 µg/m <sup>3</sup>	0.06%
CO	8-Hour	10,310 µg/m <sup>3</sup>	91.20 µg/m <sup>3</sup>	0.88%	76.01 µg/m <sup>3</sup>	0.74%
PM 10µm	24-Hour	50 µg/m <sup>3</sup>	0.312 µg/m <sup>3</sup>	0.62%	0.236 µg/m <sup>3</sup>	0.47%
PM 2.5µm		25 µg/m <sup>3</sup>		1.25%		0.94%
PM 10µm	Annual	25 µg/m <sup>3</sup>	0.022 µg/m <sup>3</sup>	0.09%	0.017 µg/m <sup>3</sup>	0.07%
PM 2.5µm		8 µg/m <sup>3</sup>		0.28%		0.21%

Note 1: Averaging periods and concentrations as sourced from the NEPM. For consistency, standards presented in parts per million have been presented in µg/m<sup>3</sup> in this report.\

The Delegated Officer considered that despite minor issue within the modelling methodology, the modelling and its inputs are appropriate in the context of this application. Correction of minor issues in the modelling is unlikely to alter the conservative worst case conclusions that short-term and long-term point source air emissions are expected to be well below relevant NEPM criteria.

## 4. Noise Impact Assessment

The applicant submitted a noise survey for an alternative premises, the Granites Power Station established in the Northern Territory, in support of this application. This noise survey assessed the exposure of power station employees to noise emissions. The power station detailed in the Granites Power Station report comprised six Jenbacher J620 generators, along with two diesel powered generators. As the KoTH power station will comprise more generators with a higher maximum power output than those used at the Granites Power Station, the Delegated Officer did not consider the outcomes to be represent an equivalency to the proposed power station.

However, the Delegated Officer used the highest decibel (db)(A) recorded noise level from the Granites Power Station noise survey and conservatively added another three db to this noise level (effectively doubling the noise level) to estimate and account for the differences between Granites Power Station and the applicant’s.

The Delegated Officer used an estimation tool to conservatively estimate the propagation of the noise over the distance between the premises and the Tarmoola pastoral station residence which indicated noise levels at that receptor are expected to be well below the assigned noise level in the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations).

## 5. 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.

## **5.1 Source-pathways and receptors**

### **5.1.1 Emissions and controls**

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this Decision 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: Proposed applicant controls**

Emission	Sources	Potential pathways	Proposed controls
<b>Construction</b>			
Dust	Site preparation and earthworks, movement and operation of vehicles and equipment on unsealed surfaces and the erection of structures.	Air / windborne pathway to sensitive receptors	<ul style="list-style-type: none"> <li>Land disturbance will be the minimum necessary to construct the premises;</li> <li>Water carts will be utilised to minimise dust from disturbed areas and material stockpiles;</li> <li>Vehicles and equipment will travel along defined roads in accordance with speed limits; and</li> <li>Vehicles will be required to travel at safe operating speeds on unsealed roads.</li> </ul>
Noise			<ul style="list-style-type: none"> <li>Construction activities will only be undertaken during day light hours.</li> </ul>
Chemical and Hydrocarbon spills	Chemical and hydrocarbon spills during construction activities.	Seepage through the underlying soil profile into groundwater	<ul style="list-style-type: none"> <li>The existing storage areas for lubricants, oils, chemicals and hydrocarbons at the site will be used to support construction activities.</li> </ul>
<b>Commissioning and Operation</b>			
Air emissions from fossil fuel combustion	Operation of the diesel and gas-powered generators.	Air / windborne pathway to sensitive receptors	<ul style="list-style-type: none"> <li>The use of contemporary generators with high efficiency and a low-emission profile;</li> <li>Both the gas and diesel powered generators will be maintained and serviced at regular intervals designated by their manufacturer's to ensure efficient operation and optimum fuel consumption;</li> <li>Gas generator stacks will have a height of 8.5 metres above ground level;</li> <li>Diesel generator stacks will have a height of 3.5 metres above ground level;</li> <li>After commissioning, the gas-powered generators will be tuned based on their exhaust NO<sub>x</sub> emission profile every 2,000 hours to ensure optimum performance is maintained; and</li> <li>Diesel generators will only operate during emergency and maintenance situations.</li> </ul>
Noise			<ul style="list-style-type: none"> <li>The diesel and gas-powered generators will incorporate exhaust mufflers and other sound attenuating measures; and</li> <li>The gas-powered generators will be housed in a dedicated enclosed building.</li> </ul>
Chemical and hydrocarbon spills	Operation of the diesel and gas-powered generators. The storage and replenishment of chemicals, hydrocarbons and waste hydrocarbons.	Seepage through the underlying soil profile into groundwater	<ul style="list-style-type: none"> <li>The waste oil tank and lubrication oil tank will be located in a bund;</li> <li>The diesel fuel tank will be self-bunded;</li> <li>The gas-powered generators will be housed within an enclosed building with concrete foundations built 100 millimeters above ground level;</li> <li>The floor of the power station building will drain into a 600 mm wide culvert running the full length of the building, which drains to spill containment pit with a minimum capacity of 2 cubic metres;</li> <li>Bowsers and delivery inlets for the diesel fuel, lubrication oil and waste oil tanks will be located on a concrete or high-density polyethylene (HDPE) lined pad to contain any drips and spills;</li> <li>Spills caught in the above pad will be cleaned up using normal spill management processes. Loading of the lubrication oil, waste oil and diesel fuel tanks will also occur with best practice measures such as direct observation during the filling process and stoppage of the transfer if</li> </ul>
Contaminated storm water		Overland flows to watercourse	

Emission	Sources	Potential pathways	Proposed controls
			leaks are observed; <ul style="list-style-type: none"> <li>• Waste hydrocarbons and hydrocarbon contaminated waste materials will be segregated from other wastes and collected for offsite disposal by a licensed contractor;</li> <li>• Diesel powered generators will be contained within self-bunded enclosures;</li> <li>• The power station transformer will be contained within a bund</li> <li>• Potentially contaminated water from bunds and the spill containment pit will be directed to an oil-water separator for treatment and then pumped to the main oil-water separator at the KoTH Gold Project for further treatment.</li> </ul>

## 5.1.2 Receptors

In accordance with the *Guideline: Risk Assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the applicant'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 provides a summary of potential human and environmental receptors that may be impacted upon as a result of activities at 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 the prescribed premises boundary
Shearing Shed	Approximately 3.1 kilometres south west.
Tarmoola Station Residence	Approximately 3.6 kilometres south west.
Environmental receptors	Distance from prescribed activity
An unnamed ephemeral water course which is a tributary of Sullivan Creek. Sullivan Creek flows into Lake Raeside.	Approximately 240 metres to the south south-east.
The Goldfields Groundwater Area, proclaimed under the <i>Rights in Water and irrigation Act 1914</i> .	The premises is situated within the proclaimed Goldfields Groundwater Area. Local groundwater resources have a total dissolved solids content of between 3,000 mg/L and 7,000 mg/L, indicating these resources are brackish in nature.  Groundwater levels in the local area are at least 8 metres below ground level. However, historical information indicates groundwater levels were approximately 45 metres below ground level, with more recent groundwater level observations potentially a result of mining operations.

## 5.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 5.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 5.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the applicant'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 applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4.

Works Approval W6525/2021/1 that accompanies this Decision Report authorises construction, commissioning and time-limited operations of the Stage 1 and Stage 2 infrastructure. The conditions in the issued Works Approval, as outlined in Table 4 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required to authorise emissions associated with the ongoing operation of the Premises. A risk assessment for the operational phase has been included in this Decision 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 Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works approval	Reasoning
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Construction</b>								
Site preparation and earthworks, movement and operation of vehicles and equipment on unsealed surfaces and the erection of structures.	Dust	Air / windborne pathway causing impacts to health and amenity.	Pastoral shearing shed and homestead situated within 3.6 kilometres of the premises.	Refer to Section 5.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	N/A	Taking into account siting, separation to the nearest receptor and nature of construction activities, the Delegated Officer does not expect construction noise to impact on the nearest noise sensitive receptors and has not specified conditions. The applicant is required to comply with the Noise Regulations.
	Noise							
<b>Commissioning and Operation (including time-limited-operations operations)</b>								
Operation of the diesel and gas-powered generators.	Emissions from the combustion of fossil fuels.	Air/windborne pathway causing impacts to health and amenity	Pastoral shearing shed and homestead situated within 3.6 kilometres of the premises.	Refer to Section 5.1	C = Minor L = Rare <b>Low Risk</b>	Y	Conditions 1-3; Conditions 4-7; Condition 8; Conditions 9 and 10; Conditions 11 and 12; Conditions 13 - 15; and Conditions 16 and 17.	The Delegated Officer took into account the applicants air dispersion assessment information as outlined in section 3. Predicted ground level concentrations of air emissions are expected to be below relevant NEPM criteria.  The Delegated Officer will specify applicant controls for the design and installation of gas-fired generators for the two stages.  The Delegated Officer initially required commissioning testing to validated the emissions performance. The applicant provided comments on the draft decision report and works approval request the monitoring requirement be removed, and where necessary replaced with the existing proposed applicant control involving ongoing tuning of the generators to ensure minimization of NOx emissions. Refer to Appendix 1. The Delegated Officer accepted the reasoning.  - The risk assessment of diesel-powered generators was on the basis of intermittent short-term use associated with emergency or maintenance scenarios. The works approval will therefore limit air emissions from these generators to periods of emergency or maintenance use.
	Noise							Noise emissions are expected to comply with the Noise Regulations at the nearest sensitive noise receptor. No additional noise conditions specified.
Operation of the diesel and gas-powered generators. The storage and replenishment of chemicals, hydrocarbons and waste hydrocarbons.	Chemical and hydrocarbon spills.	Seepage through the soil profile into the underlying groundwater resources.	Groundwater approximately 8 metres below ground level.	Refer to Section 5.1	C = Minor L = Rare <b>Low Risk</b>	Y	Conditions 1-3; Conditions 4-7; Conditions 9 and 10; Conditions 11 and 12; Conditions 13 - 15; and Conditions 16 and 17.	Given the controls proposed by the applicant and the depth of groundwater underlying the premises, the Delegated Officer does not anticipate that the quality of local groundwater resources will be adversely impacted by the operation of the premises.  The Delegated Officer noted that the applicant proposed to construct a spill pad to capture spills during the replenishing and emptying of the lubrication oil, waste oil and diesel fuel tanks, with the applicant specifying this spill pad could be constructed out of HDPE liner or concrete. As the application information did not outlined the proposed design specifications and QA/QC measures for the installation of HDPE liner, the Delegated Officer did not further assess this option and specified the alternative applicant control involving concrete.
	Contaminated storm water from spills of chemicals and hydrocarbons.	Overland flow towards ephemeral surface water features.	An unnamed ephemeral water course 240 metres to the south south-east of the premises..					Given the controls proposed by the applicant and the distance between the premises and the nearest surface water features, no adverse impacts to surface water quality or the values of surface water ecosystems are anticipated to result from the operation of the premises.

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

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

## 6. Consultation

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

**Table 5: Consultation**

Consultation method	Comments received	Department response
Application advertised on the department's website between 14 April 2021 and 5 May 2021.	None received	N/A
Local Government Authority advised of proposal on 20 April 2021.		
Applicant was provided with draft documents on 28 May 2021.	The applicant responded on 1 June 2021 and provided additional information on 2 June 2021. Comments and suggested amendments and changes are summarised in Appendix 1.	Refer to Appendix 1 of this report.

## 7. Decision Making

Taking into account the risk assessment outcomes in Table 4, the Delegated Officer has determined to grant a works approval the construction, commission and time limited operation of the KoTH power station.

In addition to applicant controls for the design and construction, the works approval will require the applicant to verify point source air emissions during an environmental commissioning phase and report results to DWER prior to proceeding to time limited operations. It is expected that the applicant will also lodge a licence application around the commencement of time limited operations. DWER will review air emissions verification results through the licence application process to determine any changes to the air emissions risk profile and the need for ongoing monitoring requirements.

## 8. Conclusion

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

## References

1. Department of Environment Regulation 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Joondalup, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Joondalup, Western Australia.
4. Martinick Bosch Sell Pty Ltd (MBS) Environmental (2021), *King of the Hills Power Station Works Approval Application (DWERDT402230)*, West Perth, Western Australia.
5. Martinick Bosch Sell Pty Ltd (MBS) Environmental (2021), *Application for a works approval*

*under the Environmental Protection Act 1986 – response to request for further information ref DER2018/001042-4~83 (DWERDT417953), West Perth, Western Australia.*

6. Martinick Bosch Sell Pty Ltd (MBS) Environmental (2021), *Application for a works approval under the Environmental Protection Act 1986– response to request for further information ref DER2018/001042-4~83, Part 2 (DWERDT450789), West Perth, Western Australia.*
7. Martinick Bosch Sell Pty Ltd (MBS) Environmental (2021), *Submission of air quality modelling files (A2006736), West Perth, Western Australia.*

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

Condition	Summary of applicant's comment	Department's response
Conditions 8 -9	The applicant requested the air emissions monitoring requirements contained within conditions 8 and 9 be removed from the works approval. The applicant advised that the gas generators would be tuned using their exhaust NO <sub>x</sub> emissions to optimise their performance during commissioning and the operational life of the generators.	The Delegated Officer accepted the applicant's reasoning and removed the air emissions monitoring requirements from conditions 8 and 9 of the works approval on the basis of substituting the monitoring requirement with an alternative applicant control for ongoing performance tuning to minimise NO <sub>x</sub> emissions. Taking onto account the risk assessment outcome, including siting aspects, the alternative requirement proposed by the applicant is commensurate with the assessed risk and will achieve the desired outcome of ensuring NO <sub>x</sub> emissions are minimised. The applicant will be required to maintain a record of the tuning activities.
Condition 1, Schedule 2, Table 5 – Item 1	The applicant advised the concrete spill containment pit volume will be greater than the 2m <sup>3</sup> capacity specified in this condition, but the dimensions may be different than those specified in the works approval application. The applicant sought to remove the requirement for the containment pit to be built to specific dimensions and instead have a mandated capacity of at least 2 cubic metres.	The Delegated Officer accepted the applicant's reasoning and amended the requirements of Table 5, Item 1 to require the spill containment pit to be built to have a minimum capacity of 2 cubic metres.  Table 2 of the decision report was also amended to incorporate this change.
Condition 1, Schedule 2, Table 5 – Item 4	The applicant advised that the diesel tank would be self-bunded and therefore the establishment of this tank within a bunded compound was unnecessary. The applicant also advised that since the lubrication oil and waste oil tanks are to be situated within a bunded compound, these tanks do not need to be self-bunded.  The applicant also advised that the design of bowser spill pad does not currently drain to the spill containment pit and any spills will be cleaned up using normal spill management processes. Loading will also occur with best practice measures such as direct observation and stoppage in the event of a spill.	The Delegated Officer accepted the applicant's reasoning and amended the requirements of Table 5, Item 4 to remove the requirement for the diesel fuel tank to be located within a bunded compound and for the lubrication oil and waste oil tanks to be self-bunded. The requirement for the spill pad to be linked to the spill containment pit was also removed.  Table 2 of the decision report was also amended to incorporate these changes.
Condition 1, Schedule 2, Table 5 – Item 6	The applicant advised that for ease of access, the oily water separator will be located within the bund containing the lubrication oil and waste oil tanks, adjacent to the spill containment pit.	The Delegated Officer accepted the applicant's reasoning and amended the requirements of Table 5, Item 6 to locate the oily water separator within the bund containing the lubrication oil and waste oil tanks.
Figure 2	The applicant provided an updated infrastructure layout figure clearly labelling key infrastructure and providing updated coordinates for the discharge points.	Figure 2 of the works approval was updated to the figure submitted by the applicant.

## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY						
Application type						
Works approval	<input checked="" 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"/>
		Has time limited operations under the works approval demonstrated acceptable operations?			Yes	<input type="checkbox"/>
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?			Yes	<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 type="checkbox"/>	Current licence number:				
		Relevant works approval number:		N/A	<input type="checkbox"/>	
Registration	<input type="checkbox"/>	Current works approval number:		None	<input type="checkbox"/>	
Date application received		14 January 2021				
Applicant and Premises details						
Applicant name/s (full legal name/s)		Greenstone Resources (WA) Pty Ltd. However this company is owned by Red5 Ltd, and the nominated applicant contact works for Red 5 Ltd.				
Premises name		King of the Hills gold mine				
Premises location		M37/90 and M37/547 – Both held by Greenstone Resources (WA) Pty Ltd				
Local Government Authority		Shire of Leonora				
Application documents						
HPCM file reference number:		DER2018/001042-4~83				
Key application documents (additional to application form):		All Contained in DWERDT402230				
Scope of application/assessment						

<p>Summary of proposed activities or changes to existing operations.</p>	<p>Construction of a gas fired power station with a capacity of up to 45.3MW to provide power to the re-opened King of the Hills gold mine ~28 km north of the town of Leonora. The power station will be constructed in two stages, with Stage One anticipated to have a load of 16.5 MW, with the remainder of its 27.7 MW capacity to provide redundancy and to allow 'deloading' in hot temperatures.</p> <p>Stage two is anticipated to add a load of 10.5 MW, with the remainder of its 17.6 MW capacity to provide redundancy and to allow 'deloading' in hot temperatures.</p> <p>The maximum power station output capacity is anticipated to be 27MW once both stages are complete. Stage two will only be constructed if additional power output is required to support operations at the premises.</p> <p>Power will be supplied to site transformers within the power station and overhead/underground power lines will be installed to distribute 22 kV and 11 kV power to substations within the processing plant and greater mine areas. Power line corridors will typically align with roads and alongside established pipeline corridors to minimise vegetation disturbance.</p> <p>In addition to gas, a self-bunded 20,000 L lube oil tank, self-bunded 20,000 L waste oil tank and a 68,000 L diesel tank will be installed within the prescribed premises boundary.</p>
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**Category number/s (activities that cause the premises to become prescribed premises)**

**Table 1: Prescribed premises categories**

Prescribed premises category and description	Proposed design capacity
Category 52: Electric Power Generation. Premises (other than premises within category 53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel.	Stage One: 27.7 MW Stage Two: 17.6 MW Total Capacity: 45.3 MW

**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 checked="" type="checkbox"/>	N/A
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	The applicant has provided outputs from the Mineral Titles Online system administered by DMIRS. This system provides the status of tenements, their associated conditions and details of their current holders, among

		<p>other things. These outputs confirm the tenements are registered to Greenstone Resources (WA) Pty Ltd. These outputs are dated from 19 October 2020.</p> <p>I checked the status of these tenements using the 'Mining Tenements' layer in Geocortex. Both tenements are still held by Greenstone Resources (WA) Pty Ltd.</p>
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Application is based on mining tenure. A mining proposal has been submitted to DMIRS under the <i>Mining Act 1978</i> for activities at the re-opened King of the Hill mine: including the proposed power station. This mining proposal is currently undergoing assessment.
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	CPS No: 8938/1. Issued 22 August 2020, with an expiry date of 13 October 2021. The area covered by this clearing permit includes the power station footprint.
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"/>	N/A
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Licence/permit No: GWL 204011(1)
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"/>	N/A
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	The application area is situated approximately 7.8 kilometres southeast of the Leonora Water reserve.
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</i>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A

<i>Agreement Act xxxx)</i>		
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
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"/>	N/A