Decision Report

Application for Licence

Division 3, Part V *Environmental Protection Act 1986*

Licence Number	L9153/2018/1
Applicant	APA Power Holdings Pty Limited
ACN	149 762 121
File Number	DER2018/000999-1
Premises	Gruyere Power Station Part of Mining Lease M38/1267 COSMO NEWBERY WA 6440 As defined by the coordinates in Schedule 1 of the Licence
Date of Report	7 September 2018
Status of Report	Final

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1. Definitions of terms and acronyms

In this Decision Report, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
ACN	Australian Company Number
AS 1692	AS 1962-2006 *Steel tanks for flammable and combustible liquids*
AS 1940	AS 1940-2017 *The storage and handling of flammable and combustible liquids*
AS 2067	AS 2067-2016 *Substations and high voltage installations exceeding kV a.c.*
AS/NZS 3007	AS/NZS 3007-2013 *Electrical equipment in mines and quarries - Surface installations and associated processing plant*
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
Decision Report	refers to this document.
Delegated Officer	an officer under section 20 of the EP Act.
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
Licence Holder	APA Power Holdings Pty Ltd
Minister	the Minister responsible for the EP Act and associated regulations
MS	Ministerial Statement
Occupier	has the same meaning given to that term under the EP Act.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report

Risk Event	As described in *Guidance Statement: Risk Assessment*

2. Purpose and scope of assessment

An application for Licence was received on 11 June 2018 (the Application) from APA Power Holdings Pty Ltd (the Applicant) to operate the Gruyere Power Station (the Premises) at the Gruyere Gold Project within the Shire of Laverton.

This Decision Report documents the Delegated Officer's risk assessment of emissions and discharges from the Premises consistent with DER's *Guidance Statement: Risk Assessment* (DER 2017a) and *Guidance Statement: Decision Making* (DER 2017b).

2.1 Application details

The Applicant has applied for a licence to operate a 44MW gas-fired power station at the Gruyere Gold Project. Table 2 lists the documents submitted during the assessment process.

Table 2: Documents and information submitted during the assessment process

Document/information description	Date received
Licence Application Form: dated 11.6.2018 (including Attachments)	11 June 2018
Supporting documentation: Environmental Licence Application, Gruyere Power Station. APA Power Holdings Pty Limited, May 2018	

3. Background

Works Approval W6002/2016/1 was issued to Gruyere Management Pty Ltd on 4 February 2017 to allow construction of categories 5 (processing or beneficiation of ore), 52 (electric power generation), 73 (bulk storage of chemicals etc.) and 85 (sewage facility) Prescribed Premises associated with the Gruyere Gold Project.

Whilst the power station and other aspects of the Gruyere Gold Project is still under construction, the Applicant has entered into an agreement with Gruyere Management Pty Ltd to build, own and operate the power station. As such, the area of land that will encompass the power station has been excised from the Gruyere Gold Project Mining Lease (M38/1267) and has been leased to the Applicant who is now the Occupier of that land. The Applicant is therefore seeking a separate Category 52 Prescribed Premises Licence to be issued within a new/separate Prescribed Premises Boundary to operate the power station.

Table 3 lists the prescribed premises categories that have been applied for.

Table 3: Prescribed Premises Categories in the Existing Licence

Classification of Premises	Description	*Approved Premises production or design capacity or throughput*
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.	≤ 44 MW in aggregate

4. Overview of Premises

The Premises is located approximately 200km northeast of Laverton and approximately 15km south of the Laverton-Warburton Highway (Figure 1). The Premises is located on Mining Lease M38/1267 within a separate Premises boundary as shown in Figure 2. The power station Premises and the Gruyere Gold Project are situated within the Yamarna Pastoral Lease which is wholly owned and managed by Gold Road (Gruyere) Pty Ltd, the primary tenement holder.

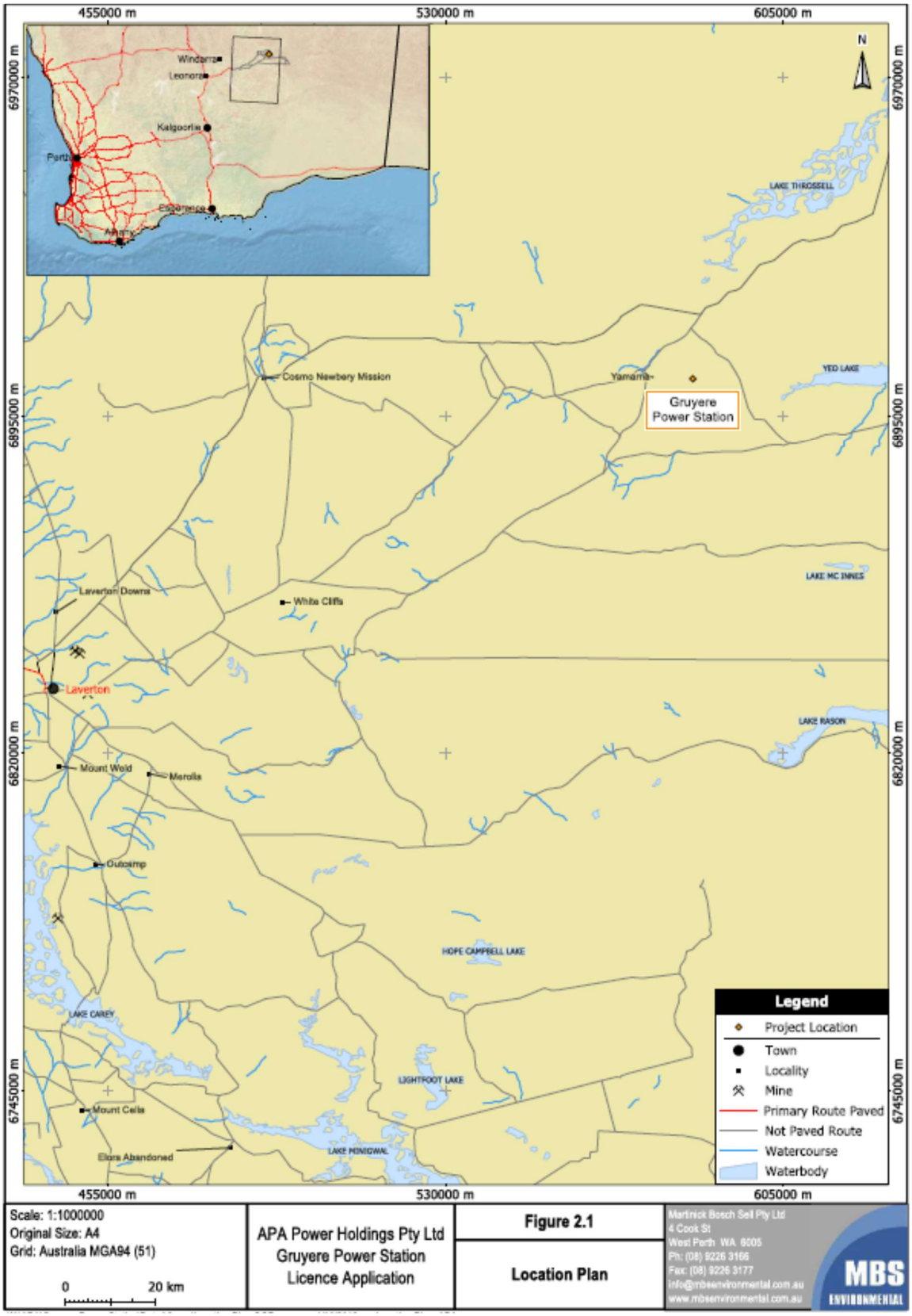


Figure 1: Location of Gruyere Power Station

Figure 2: Gruyere Gold mine showing APA Power Holdings Lease boundary (in pink).

4.1 Operational aspects

A 44MW gas fired power station comprising 11 individual gas generator sets (gensets) each with a design capacity of 4.4MW has been constructed within the Premises to generate electricity for the Gruyere Gold Project. Compliance documentation (APA Group, 2018) was received by DWER on 15 August 2018 demonstrating the power station has been constructed in accordance with the requirements of Works Approval W6002/2016/1.

Fuel will be supplied to the Premises via a natural gas pipeline running from the Eastern Goldfields Gas pipeline to the mine site. The gas power station will include two emergency diesel back-up gensets each with a design capacity of 4MW.

A 10,000L self bunded diesel tank has been installed at the power station to provide emergency fuel supply for up to three days running on minimum power.

The design brief for the power station incorporates a peak load requirement of 35.7MW with an average load of 32MW and a reliability level of n-2 (i.e. two machines out of service) and provide this level of service in ambient conditions (de-rated for ambient temperature). Overhead power lines will distribute 22kV and 11kV power from the Power Station to the rest of the project.

Emissions to air as a result of operation of the gas power station will be discharged via 11 stacks off the gas gensets with the exhaust points located 12.5m above ground level (AGL) plus two stacks for the diesel gensets with the emission exhaust points located 5.1m AGL.

Potentially contaminated stormwater generated at the Power Station (from the Truck Loading/Transfer Bay and the Workshop) will flow to drains and sumps on the Premises for treatment by the Premises Oily Water Separator System to less than 5mg/L Total Recoverable Hydrocarbons (TRH)prior to being discharged from the Premises at Terminal Point 15 (see figure 3) where it will leave the Premises and be pumped to the Gruyere Gold Mine for further treatment via the oily water separator located at the Gruyere Gold Mine Diesel Storage Farm south of the Premises.

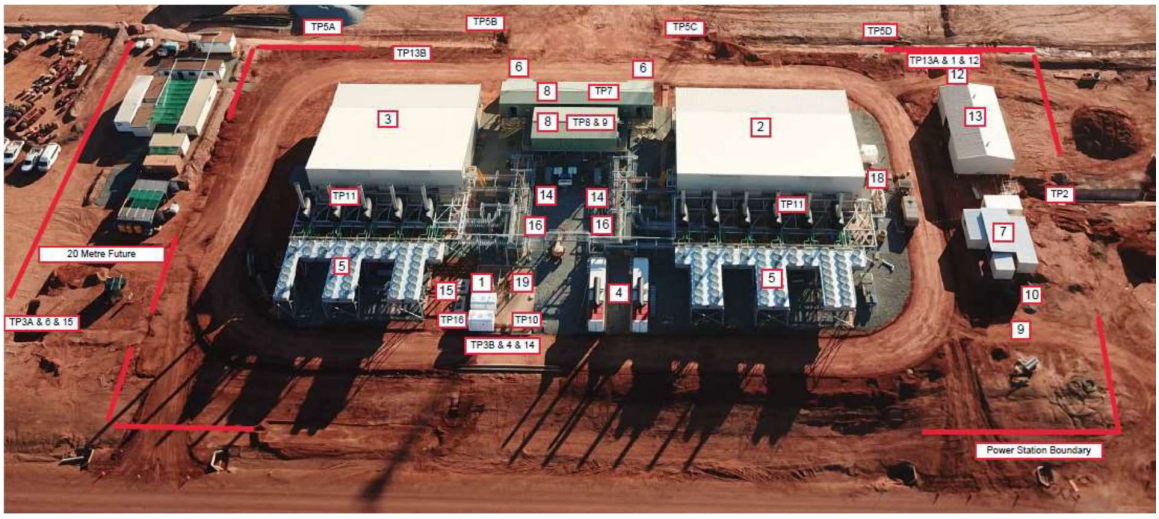
4.2 Infrastructure

The Gruyere Power Station infrastructure, as it relates to Category 52 activities, is detailed in Table 4.

Table 4: Gruyere Power Station Category 52 Prescribed Premises infrastructure

	Infrastructure	**Site Plan Reference**
	Prescribed Activity Category 52	
Operation of the Category 52 gas fired power station		
1	11 x Jenbacher J624 4.4MW reciprocating gas engine generators with 11 emissions stacks located 12.5m above ground level	As shown in Figure 3: Gruyere Power station Premises layout plan
2	2 x K2500 4MW emergency diesel back-up generators with 2 emissions stacks located 5.1m above ground level	
3	1 x 10kL self bunded diesel storage tank with dual hose bowser and pipework (sufficient for three days running on minimum power)	
4	Bulk oil and coolant storage facilities	
5	Auxillary Transformers, earthing transformers, control room, switchrooms, battery rooms etc.	
	Directly related activities	

	Infrastructure	Site Plan Reference
Premises infrastructure to manage stormwater within the Premises, including potentially contaminated stormwater		
6	Stormwater infrastructure, including drainage swales, stormwater headwalls and oily water separator	As shown in Figure 3: Gruyere Power station Premises layout plan



Legend

TP #	DESCRIPTION
TP1	POTABLE WATER SUPPLY
TP2	FUEL GAS SUPPLY (BOUNDARY)
TP3A	DIESEL FUEL SUPPLY
TP3B	DIESEL FUEL SUPPLY (TANKER)
TP4	WASTE OIL UNLOADING
TP5A	STORMWATER SWALE TO 'V' DRAIN
TP5B	STORMWATER HEADWALL 01
TP5C	STORMWATER HEADWALL 02
TP5D	STORMWATER HEADWALL 03
TP6	SEWAGE & WASTE WATER
TP7	11kV POWER
TP8	CONTROL
TP9	FIXED LINE COMMS
TP10	CHEMICAL SUPPLY (COOLANT)
TP11	GENSET EXHAUST
TP12	RAW / SERVICE(FRESH) WATER
TP13A	FIRE WATER (NORTH)
TP13B	FIRE WATER (SOUTH)
TP14	CLEAN OIL LOADING (GAS ENGINES)
TP15	OILY WATER
TP16	CLEAN OIL (DIESEL ENGINES)

ITEM	DESCRIPTION
1	CLEAN / WASTE OIL & DIESEL STORAGE
2	POWERHOUSE No.1
3	POWERHOUSE No.2
4	DIESEL GENSETS
5	RADIATORS (GAS ENGINES)
6	AUXILIARY TRANSFORMERS - 11kV/415V
7	OFFICE, CONTROL ROOM, LUNCHROOM & AMENITIES
8	HV SWITCHROOMS, LV SWITCHROOM & BATTERY ROOMS
9	BULK OIL & COOLANT LOADING / UNLOADING
10	CARPARK
11	SEWAGE TREATMENT SYSTEM
12	RAW WATER TANK & PUMP
13	WORKSHOP
14	EARTHING TRANSFORMERS
15	OILY WATER SEPARATOR
16	ENGINE CONTROL PANEL ROOM
17	SPARE
18	GAS SKID
19	COMPRESSED AIR PLANT

Figure 3: Gruyere Power Station Premises layout

4.3 Exclusions to the Premises

This Decision Report reviews the emissions and discharges associated with the Category 52 power station operations only. All other activities outside of the power station Premises boundary that is associated with the operation of the Gruyere Gold Project, such as the mining and processing of ore, bulk storage of chemicals, sewage facility and all other infrastructure related to Gruyere Gold Project is outside of the scope of this assessment and will not be considered further in this Decision Report.

5. Legislative context

Table 5 summarises approvals relevant to the assessment.

Table 5: Relevant approvals and tenure

Legislation	Number	Subsidiary	Approval
Mining Act 1978	Mining Proposal Registration ID: 71094	Gruyere Management Pty Ltd	Mining Proposal Gruyere Project Gruyere Gold Mine, Anne Beadell and Yeo Borefields
Part IV of the EP Act	Ministerial Statement 1048	Gold Road Resources	Development of the Gruyere Gold Project (including the Gruyere Power Station)

5.1 Part IV of the EP Act

5.1.1 Background

Gold Road Resources Limited referred a proposal to the Environmental Protection Authority (EPA) on 2 March 2016 to develop the Gruyere Gold Project (which included the Gruyere Power Station). On 15 June 2016 the EPA set the level of assessment at Assessment on Proponent Information – Category A (API - A). The API - A document was reviewed by the EPA and the Report and Recommendations of the EPA (*Report Number 1587*) were released to the Minister for Environment (Minister) on 16 November 2016. Ministerial Statement (MS) 1048 granting approval for the project to be implemented was signed by the Minister on 29 December 2016. No conditions within MS 1048 are directly related to the construction or operation of the Gruyere Power Station.

5.2 Part V of the EP Act

5.2.1 Applicable regulations, standards and guidelines

The overarching legislative framework of this assessment is the EP Act and EP Regulations. The guidance statements which inform this assessment are outlined in Appendix 1.

5.2.2 Works approval and licence history

Table 6 summarises the works approval and licence history for the Premises.

Table 6: Works approval and licence history

Instrument	Issued	Nature and extent of works approval, licence or amendment
W6002/2016/1	03/02/2017	New works approval for Gruyere Gold Project, including category 5 (gold processing plant and TSF), Category 52 (power station), Category 64 (landfill), Category 73 (bulk fuel facility) and category 85 (sewage facility).
W6002/2016/1	4/04/2017	Transfer of works approval.
W6002/2016/1	5/07/2018	Works approval amendment to update TSF design, location of ambient groundwater monitoring bores and to excise the portion of land associated with the Gruyere Power Station to allow it to be leased to APA Holdings Pty Limited.
L9153/2018/1	23/08/2018	New licence application for operation of a Category 52 power station only
L9153/2018/1	07/09/2018	Amendment to correct administrative error in licence.

5.2.3 Clearing

The clearing of no more than 2,930ha for the Gruyere Gold Project (including the Gruyere

Power Station) has been authorised under MS 1048.

6. Consultation

The application for licence was advertised in the West Australian and on DWER's website on 30 July 2018 for a public comment period ending on 17 August 2018. No public comments were received.

A letter inviting comment was sent to the Shire of Laverton on 26 July 201. No comments were received from the Shire of Laverton.

7. Location and siting

7.1 Siting context

The Premises is located approximately 80km east of Cosmo Newbery and 150km north-east of Laverton in Western Australia as shown in Figure 1. The Premises is located on the Yamarna Pastoral Lease, which is in the process of being de-stocked and will be rested to improve the grazing rangeland capability.

The workforce for the Premises will be housed at the Gruyere Accommodation Village located approximately 6km south-west of the Premises. As the Accommodation Village is associated with the operation of the Gruyere Gold Project to house the workforce, it will not be considered a sensitive land use or receptor in this Report.

7.2 Residential and sensitive Premises

The distances to residential and sensitive receptors are detailed in Table 7. The closest residential area to the Premises is Cosmo Newbery, which has a population of approximately 74 people in 2011 (2011 Census Quickstats).

Gold Road Resources Limited has an exploration camp located approximately 25km from the Premises at the old Yamarna homestead, which includes accommodation that can cater for up to 30 exploration personnel.

Table 7: Receptors and distance from activity boundary

Sensitive Land Uses	Distance from Prescribed Activity
Closest residential zoned premises (zoned settlement Shire of Laverton Planning Scheme No. 2)	The residential area of Cosmo Newbery is approximately 92km west of the Premises.

7.3 Specified ecosystems

Specified ecosystems are areas of high conservation value and special significance that may be impacted as a result of activities at or Emissions and Discharges from the Premises. The distances to specified ecosystems are shown in Table 8. Table 8 also identifies the distances to other relevant ecosystem values which do not fit the definition of a specified ecosystem.

The table has also been modified to align with the *Guidance Statement: Environmental Siting* (DER 2016b).

Table 8: Environmental values

Specified ecosystems	Distance from the Premises
Ramsar Sites in Western Australia	Lake Ballard is greater than 30km to the south-west of

	the Premises.
Department of Biodiversity, Conservation and Attractions Managed Lands and Waters	Yeo Lake Nature Reserve boundary is located approximately 12km east of the Premises.
Threatened Ecological Communities and Priority Ecological Communities	There are no Threatened Ecological Communities or Priority Ecological Communities within or in a 30 km radius of the Premises.
Declared Rare Flora	There are no Declared Rare Flora within or in a 30km radius of the Premises.
Biological component	**Distance from the Premises**
Threatened/Priority Flora	Two Priority Flora taxa *Calytrix warburtonensis* (Priority 2) and *Thryptomene nealensis* (Priority 3) were identified within M38/1267. Neither of these species has been identified in areas of proposed disturbance (Gold Road, 2016a).
Threatened/Priority Fauna	Database searches identified 21 species of conservation significance that have the potential to occur within the project area. Of these 21 species only two (Rainbow Bee-eater and Southern Marsupial Moles) were observed during the surveys. The Rainbow Bee-eater was recorded outside the project footprint and the Southern Marsupial Moles (Priority 4 species) were recorded during the borefield surveys. (Gold Road, 2016a). Neither of these species are expected to be impacted by the operation of the Premises.

7.4 Groundwater and water sources

The distances to groundwater and water sources are shown in Table 9.

Table 9: Groundwater and water sources

Groundwater and water sources	Distance from Premises	Environmental value
Public Drinking Water Source Area (PDWSA)	There are no PDWSA within the Premises. The Priority 1 Laverton Water Reserve is approximately 140km south-west of the TSF.	The Laverton Water Reserve provides potable water to the Laverton Town Water Supply.
Groundwater and groundwater salinity	Gold Road, 2016a states that groundwater can be located at an average depth of 65 m below ground level. Standing water levels measured in the exploration holes ranged between 30m to 40m depth. Recharge occurs via infiltration and through localised drainage systems during large rainfall events. There is a groundwater bore located approximately 6km west of the Premises (based on available GIS dataset – WIN Groundwater Sites).	Groundwater salinity (Total Dissolved Solids) is 1,000 – 3,000mg/L) which is considered brackish (Salinity status classifications).
RiWI Act	The Premises is located in the Proclaimed Goldfields Groundwater Area.	N/A.

Watercourses	Reetz Creek and Lake Throssell are approximately 15km to the south and north-east of the Premises respectively. There are a few unnamed, ephemeral and relatively minor watercourses which drain in a generally south-west to north-west direction towards Lake Throssell. According to DWER's GIS dataset there is a Major Tributary, Minor River and Minor Tributary (Watercourse – Minor, Non Perennial) approximately 26km to the west, 14km to the north and 25km to the south-west of the Premises respectively	Unnamed creeks in the regional area are dry throughout the year except during periods of rain activity from seasonal thunderstorms and occasional cyclone remnants.

7.5 Meteorology

7.5.1 Regional climatic aspects

The Premises is located within the semi-arid zone of Western Australia with mild winters and hot summers (Gold Road, 2016a).

7.5.2 Rainfall and temperature

BOM, 2016 provides the mean rainfall and maximum temperatures for Laverton (mean maximum temperature 1991-2016 and mean rainfall 1994-2016) as shown in Figure 4. Annual rainfall in the semi-arid zone is highly variable and subject to drought periods. Rainfall is related both to locally generated thunderstorms and to dissipating tropical cyclones tracking south-east (Gold Road, 2016a).

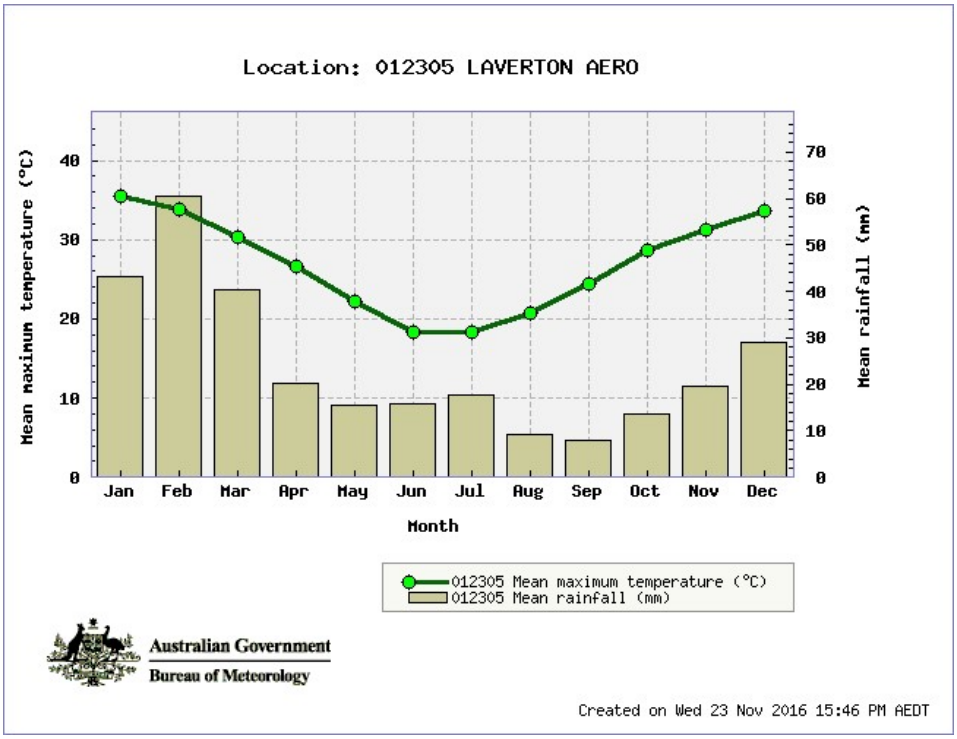


Figure 4: Mean temperatures and rainfall, Laverton Aero

Source: Bureau of Meteorology website www.bom.gov.au

8. Risk assessment

8.1 Determination of emission, pathway and receptor

In undertaking its risk assessment, DWER will identify all potential emissions pathways and potential receptors to establish whether there is a Risk Event which requires detailed risk assessment.

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. Where there is no actual or likely pathway and/or no receptor, the emission will be screened out and will not be considered as a Risk Event. In addition, where an emission has an actual or likely pathway and a receptor which may be adversely impacted, but that emission is regulated through other mechanisms such as Part IV of the EP Act, that emission will not be risk assessed further and will be screened out through Table 10.

The identification of the sources, pathways and receptors to determine Risk Events are set out in Table 10 below.

Table 10: Identification of emissions, pathway and receptors during operation

Risk Events						Continue to detailed risk assessment	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
Category 52 Electric power generation	44MW gas-fired power station	Emissions to air of nitrogen oxides, sulfur oxides, carbon monoxide and volatile organic compounds	No residences, sensitive land uses or specified ecosystems within 12km of the Premises.	Air / wind dispersion	Health and amenity	No	No sensitive receptors present.
		Spills and breach of containment causing hydrocarbon or chemical discharge to land	Terrestrial ecosystems adjacent to the spill.	Direct discharge to land and infiltration to soil	Soil contamination	Yes – Refer to section 8.4	Potential soil contamination.

Risk Events						Continue to detailed risk assessment	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
		Noise from the operation of the power station	No residences, sensitive land uses or specified ecosystems within 12km of the Premises.	Air / wind dispersion	None	No	No receptors present.

8.2 Consequence and likelihood of risk events

A risk rating will be determined for risk events in accordance with the risk rating matrix set out in Table 11 below.

Table 11: Risk rating matrix

Likelihood	Consequence				
	Slight	Minor	Moderate	Major	Severe
Almost certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Medium	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High

DWER will undertake an assessment of the consequence and likelihood of the Risk Event in accordance with Table 12 below.

Table 12: Risk criteria table

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the Risk Event occurring.		The following criteria has been used to determine the consequences of a Risk Event occurring:		
			Environment	Public health* and amenity (such as air and water quality, noise, and odour)
Almost Certain	The risk event is expected to occur in most circumstances	Severe	• **onsite impacts**: catastrophic • **offsite impacts local scale**: high level or above • **offsite impacts wider scale:** mid-level or above • Mid to long-term or permanent impact to an area of high conservation value or special significance^ • Specific Consequence Criteria (for environment) are significantly exceeded	• Loss of life • **Adverse health effects:** high level or ongoing medical treatment • Specific Consequence Criteria (for public health) are significantly exceeded • **Local scale impacts:** permanent loss of amenity
Likely	The risk event will probably occur in most circumstances	Major	• **onsite impacts**: high level • **offsite impacts local scale**: mid-level • **offsite impacts wider scale**: low level • Short-term impact to an area of high conservation value or special significance^ • Specific Consequence Criteria (for environment) are exceeded	• **Adverse health effects:** mid-level or frequent medical treatment • Specific Consequence Criteria (for public health) are exceeded • **Local scale impacts**: high level impact to amenity
Possible	The risk event could occur at some time	Moderate	• **onsite impacts**: mid-level • **offsite impacts local scale**: low level • **offsite impacts wider scale**: minimal • Specific Consequence Criteria (for environment) are at risk of not being met	• **Adverse health effects:** low level or occasional medical treatment • Specific Consequence Criteria (for public health) are at risk of not being met • **Local scale impacts:** mid-level impact to amenity
Unlikely	The risk event will probably not occur in most circumstances	Minor	• **onsite impacts**: low level • **offsite impacts local scale**: minimal • **offsite impacts wider scale**: not detectable • Specific Consequence Criteria (for environment) likely to be met	• Specific Consequence Criteria (for public health) are likely to be met • **Local scale impacts:** low level impact to amenity
Rare	The risk event may only occur in exceptional circumstances	Slight	• **onsite impact**: minimal • Specific Consequence Criteria (for environment) met	• **Local scale**: minimal to amenity • Specific Consequence Criteria (for public health) met

^ Determination of areas of high conservation value or special significance should be informed by the *Guidance Statement: Environmental Siting.*

* In applying public health criteria, DWER may have regard to the Department of Health's *Health Risk Assessment (Scoping) Guidelines.*

"onsite" means within the Prescribed Premises boundary.

8.3 Acceptability and treatment of Risk Event

DWER will determine the acceptability and treatment of Risk Events in accordance with the Risk treatment table 13 below:

Table 13: Risk treatment table

Rating of Risk Event	Acceptability	Treatment
Extreme	Unacceptable.	Risk Event will not be tolerated. DWER may refuse application.
High	May be acceptable. Subject to multiple regulatory controls.	Risk Event may be tolerated and may be subject to multiple regulatory controls. This may include both outcome-based and management conditions.
Medium	Acceptable, generally subject to regulatory controls.	Risk Event is tolerable and is likely to be subject to some regulatory controls. A preference for outcome-based conditions where practical and appropriate will be applied.
Low	Acceptable, generally not controlled.	Risk Event is acceptable and will generally not be subject to regulatory controls.

8.4 Risk Assessment – Spills and leaks of hydrocarbons and chemicals during operations

8.4.1 Description of spills/leaks of hydrocarbons and chemicals during operations

During operations there could be spills or leaks of hydrocarbons and / or chemicals associated with the power station. Diesel fuel spills to land may occur during refueling activities, or lubricants, oils, coolants and transformer fluids could be released to ground as a result of failures of bunding or sumps or catastrophic mechanical failures of tanks.

8.4.2 Identification and general characterisation of emission

Hydrocarbons (diesel, oils, lubricants), heavy metals, metalloids and hazardous chemicals (coolants, transformer fluids, degreasers). These chemicals are known toxicants to organisms and contaminants in the environment.

8.4.3 Description of potential adverse impact from the emission

Soil, vegetation, surface water and groundwater ecosystems have the potential to become contaminated with hydrocarbons, heavy metals, metalloids and hazardous chemicals from materials accidently spilt or discharged to ground.

8.4.4 Criteria for assessment

Assessment and Management of Contaminated Sites (DER 2014) provides ecological and human health assessment levels for soil.

General provisions of the EP Act make it an offence to cause or allow pollution. The

Environmental Protection (Unauthorised Discharges) Regulations 2004 specifies hazardous materials, including acids, alkalis, degreasers, coolants and hydrocarbons that shall not be discharged to the environment.

8.4.5 Applicant controls

The Applicant's controls to manage spills and leaks of hydrocarbons and chemicals are set out in Table 14 below.

Table 14: Applicant's controls for spills and leaks of hydrocarbons and chemicals

Site Infrastructure	Description
Power Station	Power station day tank, waste oil tank and lubricants will be located in a bund that complies with AS 1940. Diesel generators for the power station will be sited within impermeable compounds. Transformer stations will be located in bunded areas which meet the requirements of AS 1940, AS 2067 and AS/NZS 3007. All hydrocarbon and chemical storage areas will be designed and constructed in accordance with AS 1940 and AS 1692. Hydrocarbons including diesel fuel will be contained or stored in either an approved bunded area or in double skinned, self-bunded bulk tanks. Fuel will be delivered to site in fuel tankers and stored in purpose built self bunded storage tanks. The bowser and fuel delivery inlets will be situated on concrete pads to contain any drips and spills and will have a sump to collect stormwater and any fuel spillage. Bunds and other spill containment structures will be designed to contain 110% of the largest hydrocarbon storage tank located within the containment area.
	Spill kits will be located throughout the Premises and employees trained in their use. A register of all hazardous materials imported to site or generated as a result of site activities will be maintained. Waste oils produced on site will be collected and removed from site for recycling or reuse in accordance with *Environmental Protection (Controlled Waste) Regulations 2004*
	An Oily Water Separator has been constructed on the Premises to remove contaminated water discharged into sumps and drains located within power station infrastructure with the potential for leaks / spills of hydrocarbons, including at the Truck Loading Bay pit and workshop undersink. Oily water and waste water from these areas will pass through the Oily Water Separator System and be treated to less than 5mg/L TRH before being discharged from the Premsies at theTP15 Oily Water terminal discharge point in the southwestern corner of the Premises Boundary. From here the treated stormwater will be pumped to the Gruyere Gold Mine Oily Water Separator located at the mine site bulk diesel storage facility for further treatment prior to re-use or lawful disposal. The remainder of the site has been designed such that uncontaminated stormwater collected across the Premises is discharged to the power station western boundary into the Gruyere Gold Mine vee drain that runs parallel to the power station western boundary for collection into the Gruyere Gold Mine settlement pond.

8.4.6 Key findings

The Delegated Officer has reviewed the information regarding hydrocarbon, chemical and waste impacts from leaks and spills of waste at the Premises and has found:

1. *Hydrocarbon and chemical storage areas will comply with relevant Australian Standards, and all tanks are self bunded.*
2. *Areas within the Premises that have the potential to generate contaminated stormwater / wastewater (including the Premises Truck Loading Bay and Workshop) will drain to the Premises Oily Water Separator for treatment to less than 5mg/L TRH prior to discharge at the TP15 Oily Water terminal discharge point. This water will then be pumped to the Gruyere Gold Mine Oily Water Separator located at the Gruyere Gold Mine bulk diesel storage facility for further treatment prior to re-use or discharge to the environment under separate licence conditions.*

8.4.7 Consequence

The impact from spills and leaks of hydrocarbons and chemicals at the Premises could result in mid level on-site impacts and low level off-site impacts at a local scale. Therefore, the consequence is **moderate**.

8.4.8 Likelihood of Risk Event

Based upon the distance to nearest receptors, depth to groundwater and Applicant controls, the environmental impact from spills and leaks of hydrocarbons and chemicals will probably not occur in most circumstances. Therefore, the likelihood of the consequence is **unlikely**.

8.4.9 Overall rating for spills and leaks of processing reagents, hydrocarbons and chemicals

Comparison of the consequence and likelihood ratings described above with the risk rating matrix (Table 11) determines the overall rating of risk for spills and leaks of hydrocarbons and chemicals at the Premises to be **medium**.

8.5 Summary of acceptability and treatment of Risk Events

A summary of the risk assessment and the acceptability or unacceptability of the risk events set out above, with the appropriate treatment and controls, are set out in Table 15 below. Controls are described further in section 8.6.

Table 15: Risk assessment summary

Description of Risk Event			Applicant controls	Risk rating	Acceptability with controls (conditions on instrument)
Emission	**Source**	**Pathway/ Receptor (Impact)**			
Spills and leaks of hydrocarbons and chemicals	Hydrocarbon and chemical storage areas Breach of containment	Direct discharges to land potentially causing soil contamination, inhibiting vegetation growth and temporary	Refer to Applicant controls as detailed in section 8.4.5	Moderate consequence Unlikely likelihood **Medium risk**	Acceptable subject to regulatory controls Submission of compliance document to ensure that infrastructure

Description of Risk Event			Applicant controls	Risk rating	Acceptability with controls (conditions on instrument)
Emission	**Source**	**Pathway/ Receptor (Impact)**			
	infrastructure	loss of habitat for fauna			has been constructed as per W6002/2016/1 Subject to other regulatory controls, no operational controls required

8.6 Licence controls

8.6.1 Spill infrastructure and equipment

The following environmental controls, infrastructure and equipment should be maintained and operated onsite for spill management:

- Diesel generators must be located within impermeable compounds;
- Power station day tank, waste oil tank, and lubricants must be located within a bund that complies with AS 1940 and stored within an enclosed shed on impermeable concrete bunded area with a sump to collect fuel spillage;
- Transformer stations must be located in bunded areas compliant with AS 1940, AS 2067 and AS/NZS 3007;
- All hydrocarbon and chemical storage areas must be designed and constructed in accordance with AS 1940 and AS 1692; and spills or leaks of hydrocarbons and chemicals must be immediately cleaned up and stored in impervious containers for disposal via licenced contractor; and
- Hydrocarbon contaminated stormwater must be directed to an Oily Water Separation System prior to discharge to the TP15 Oily Water terminal discharge point.

The Delegated Officer has added conditions to regulate any discharges from the Premises Oily Water Separator System to ensure emissions are acceptable and in line with requirements set for other similar Premises. A discharge limit of 5mg/L TRH has been set for stormwater that has been treated via the Oily Water Separator (based on design specifications) and the Applicant will be required to sample the discharge from the outlet of the Oily Water Separator annually during periods of discharge to ensure discharge limits are being met.

8.6.2 Monitoring reports

The Applicant will be required to keep a record of any complaints associated with operation of the Premises and will be required to submit an Annual Audit Compliance Report each year.

9. Determination of Licence conditions

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

The *Guidance Statement: Licence Duration* (DER 2016a) has been applied and the issued licence expires in 20 years from date of issue.

Table 16 provides a summary of the conditions to be applied to this licence.

Table 16: Summary of conditions to be applied

Condition Ref	Grounds
Infrastructure and Equipment Condition 1	This condition is a valid, risk-based condition to ensure appropriate linkage between the licence and the EP Act.
Emissions Conditions 2, 3 and 4	These conditions are valid, risk-based and contain appropriate controls.
Monitoring Condition 5	

Record Keeping Conditions 6, 7, 8 and 9	These conditions are valid and are necessary administration and reporting requirements to ensure compliance.

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the licence under the EP Act.

10. Applicant's comments

The Applicant was provided with the draft Decision Report and draft Licence on 20 August 2018. The Applicant responded on the 22 August 2018 indicating no comments on the draft documents and requesting the licence be issued as soon as possible.

11. Conclusion

This assessment of the risks of activities on the Premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this Decision Report (summarised in Appendix 1).

Based on this assessment, it has been determined that the Licence will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

Caron Goodbourn
ACTING MANAGER, PROCESS INDUSTRIES

Delegated Officer
under section 20 of the *Environmental Protection Act 1986*

Appendix 1: Key documents

	Document title	In text ref	Availability
1.	Works Approval W6002/2016/1 – Gruyere Gold Project	L6284/1992/10	accessed at www.der.wa.gov.au
2.	Gruyere Gold Project – Gruyere Works Approval and Licence Amendment M38/1267, L38/254 and L38/255, prepared for Gold Road Resources Limited by MBS Environmental, October 2016	Gold Road, 2016a	DWER records (A1181347)
3.	Construction Compliance Report: Gruyere Power Station. APA Group, August 2018	APA Group, 2018	DWER records (A1712234)
4.	Assessment and management of contaminated sites, Contaminated sites guidelines, Department of Environment Regulation, December 2014	Assessment and management of contaminated sites	accessed at http://www.der.wa.gov.au
5.	Ministerial Statement 1048, Gruyere Gold Project, published on 29 December 2016	MS 1048	accessed at www.epa.wa.gov.au
6.	Report and recommendations of the Environmental Protection Authority, Gruyere Gold Project, Gold Road Resources Limited, Report 1587, November 2016	Report Number 1587	accessed at www.epa.wa.gov.au
7.	Australian Bureau of Statistics, 2011 Census Quickstats for Cosmo Newbery. Accessed 1 December 2016	2011 Census Quickstats	accessed at www.censusdata.abs.gov.au
8.	DER, July 2015. *Guidance Statement: Regulatory principles.* Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
9.	DER, October 2015. *Guidance Statement: Setting conditions.* Department of Environment Regulation, Perth.	DER 2015b	
10.	DER, August 2016. *Guidance Statement: Licence duration.* Department of Environment Regulation, Perth.	DER 2016a	
11.	DER, November 2016. *Guidance Statement: Environmental Siting* Department of Environment Regulation, Perth.	DER 2016b	
12.	DER, February 2017. *Guidance Statement: Risk Assessments*. Department of Environment Regulation, Perth.	DER 2017a	
13.	DER, February 2017. *Guidance Statement: Decision Making.* Department of Environment	DER 2017b	

	Regulation, Perth.		
14.	National Environment Protection Council, July 1998. *National Environment Protection (Ambient Air Quality) Measure (1998)*	NEPM 1998	accessed at: http://nepc.gov.au/nepms/ambient-air-quality
15.	Gruyere Gold Project – Gruyere Works Approval and Licence Amendment M38/1267, L38/254 and L38/255, prepared for Gold Road Resources Limited by MBS Environmental, October 2016	Gold Road, 2016a	DWER records (A1181347)