



Application to amend licence

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

Licence number	L5206/1987/10
Licence holder	Matilda Operations Pty Ltd
ACN	166 954 525
DWER file number	2012/006906
Premises	Wiluna Mine site WILUNA WA 6646 Mining tenements M52/30, M53/32, M53/468, L53/62, L53/20, and part tenements M53/40, M53/44, M53/50, M53/26, M53/6, M53/95, M53/96, M53/200 and M53/69
Date of report	06 June 2020
Decision	Licence amended

1. Definitions

Key terms relevant to this decision report and their associated definitions are listed in Table 1.

Table 1: Definitions

Term	Definition
Category / categories	Categories of prescribed premises as set out in Schedule 1 of the EP Regulations.
Decision Report	refers to this document.
Delegated Officer	An officer delegated under section 20 of the EP Act.
Department	The department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
Emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of, and during this Amendment
Licence Holder	Matilda Operations Pty Ltd
Prescribed premises	This 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
Revised Licence	the amended Licence issued under Part V, Division 3 of the EP Act following the finalisation of this Amendment.
Risk Event	As described in <i>Guidance Statement: Risk Assessment</i>

2. Overview of premises

2.1 Classification of Premises

Table 2: Classification of premises and assessed design capacity

Category	Description	Assessed production or design capacity or throughput
Category 5	Processing or beneficiation of metallic or non-metallic ore: premises on which — a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed; or b) tailings from metallic or non-metallic ore are reprocessed; or c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	1,800,000 tonnes per annual period
Category 6	Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore.	2,365,000 kL per annual period
Category 57 (new category to be added)	Used tyre storage (general)	300 tyres
Category 63 (new category to be added)	Class I inert landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the Landfill Waste Classification and Waste Definitions 1996, is accepted for burial.	1500 tonnes or more per year
Category 85	Sewage facility: premises — a) on which sewage is treated (excluding septic tanks); or b) from which treated sewage is discharged onto land or into waters.	52 m ³ per day

2.2 Description of proposed activity

On 25 March 2020, the Licence Holder submitted an application to amend Licence L5206/1987/10 to extend the licence expiry date and authorise storage and disposal of used tyres.

Used tyres are classified by the Landfill Waste Classification and Waste Definitions 1996 (as amended 2019) as Inert Waste Type 2. This means they can be disposed of in a Class I landfill where authorised under an Environmental Protection Act licence. Hence category 63 is the relevant category.

During assessment, a request was made (A1893643) to also dispose of mill liners (Figure 1) with the tyres. These are composed of similar material to tyres, so are also classed as Inert Waste Type 2. There is no expected contamination on the liners. They are from the ‘front end’ of the process before addition of any processing chemicals. They are high pressure cleaned to remove residual gold after removal from the mill and before being taken to the laydown area, so any contamination from the crushed ore itself is minimal and of negligible risk considering it is being buried within waste mine rock with similar composition.

The environmental risks for disposing of mill liners by burial is considered to be the same as for tyres, so they have been risk assessed together. It is assumed that a given number of mill liners is roughly equivalent to the same number of tyres.

There are currently about 1,000 mill liners in the laydown area (Figure 1). Ongoing it is expected that there would be between 400 and 1,000 mill liners produced annually. The expected frequency of disposal would be 3-6 monthly, depending on the volume of liners requiring disposal at any one time.

Storage of tyres is regulated under Category 57 of the EP act. Storage of mill liners does not fit within any category, and hence is not addressed in this assessment.



Figure 1: Mill liners currently stockpiled on site

An extension to the expiry date was requested to from 30 June 2020 to 31 December 2020. This is requested to allow sufficient time to complete existing works under existing Works Approvals and to consolidate site information for the licence renewal application. However due to COVID19 the department is not currently performing licence renewals. DWER is currently extending expiring licences for 20 years.

The proposed new infrastructure and equipment are outlined in the table below and the site layout is shown in Figure 1.

Category to be added*	Infrastructure or Equipment	Site Layout Plan reference (Figure 1)
57	Tyre Storage Area	'Designated Laydown for Tyre Storage'
63	Class I Inert Landfill for disposal of tyres and mill liners disposal (within existing Waste Rock Landforms)	'Designated WRDs for Tyre Disposal'

* As per Schedule 1 of the Environmental Protection Regulations 1987

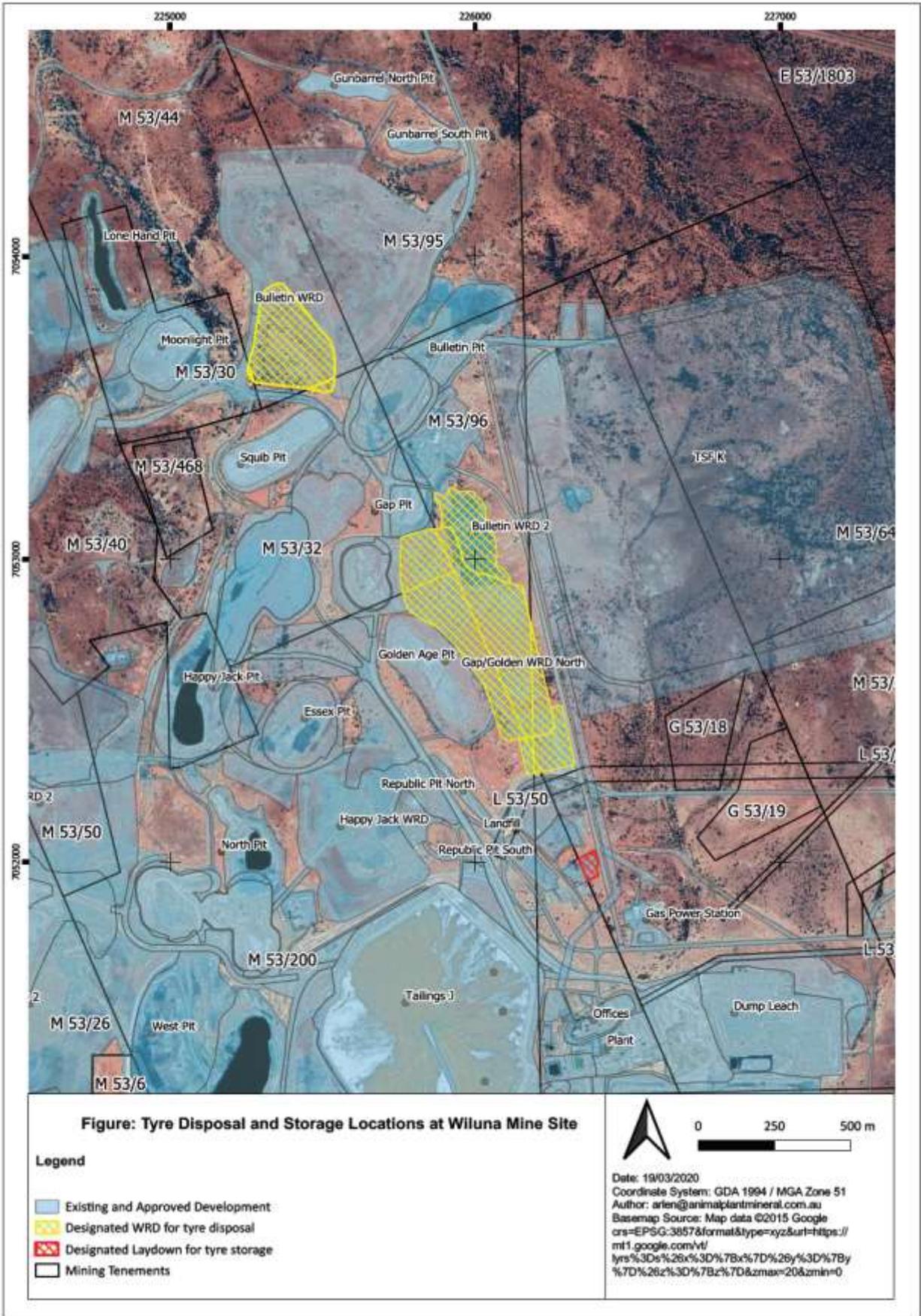


Figure 2: Site Layout Plan

3. Legislative context and other approvals

The legislative framework for this assessment is the *Environmental Protection Act 1986* (EP Act) and *Environmental Protection Regulations 1987* (EP Regulations).

Relevant guidance documents are outlined in Appendix 1.

Approvals relevant to the premises are outlined in the table below.

Legislation	Number	Approval
<i>Environmental Protection Act 1986</i> Environmental Protection (Rural Landfill) Regulations 1987	R2015/2008/1	Site landfill facility (category 89) - Class II (Putrescible) landfill - Included for reference. This site landfill is not directly related to this amendment.
<i>Mining Act 1978</i>	Mining Proposal REG ID 74304	Golden Age and Bulletin Waste Rock Landforms are approved under this Mining Proposal. Updating tyre disposal methods will be incorporated into the Mining Proposal Variation for Wiluna Mine Site, proposed to be completed in the coming months.
<i>Environmental Protection Act 1986</i>	L52/6/1987/10	The existing operating licence

4. Emission sources, pathways, receptors and controls

4.1 Emissions

The potential for emissions to impact on sensitive receptors has been assessed in accordance with the Department's Risk Framework. No assessment is required for construction as the tyre storage is in an existing laydown yard, and the disposal will take place within existing waste rock facilities, so there are therefore no specific construction activities to assess.

During operation, the tyres and mill liners will be placed in batches on active waste rock dumps and subsequently buried. While there will be some noise and dust emissions associated with this activity, the addition of tyres and mill liners will not increase the dust or noise already generated by waste rock deposition. These emissions will therefore not be further assessed here. Given tyres and mill liners will be stored well above the water table, no interaction with groundwater is anticipated.

The only credible risks associated with tyre storage and disposal are associated with the risk of a tyre fire. This could be smoke emissions (particularly particulates with other potential contaminants) and discharge of firefighting water.

4.2 Pathways

In the event of a tyre fire, smoke would be disbursed through the air. Water or other materials used in fighting the fire could run off to contaminate surface water or impact surrounding native vegetation. If uncontained, it is possible this could contaminate surface water and run into the salt lakes. These pathways have been considered in the risk assessment table in Section 5.

4.3 Receptors

Risk is assessed as a combination of emission sources, the proximity and sensitivity of receptors to those emission sources and any pathways that can allow the emission to reach and potentially harm the receptor. The table below provides a summary of human and environmental receptors in proximity to the premises which have a potential to be impacted from site activities, and the risk assessment in Section 5 considers these receptors in the context of emissions and potential pathways.

Human receptors	Distance from activity or prescribed premises
Bondini Community	3.0 km
Wiluna Townsite	3.4 km
Environmental receptors	Distance from activity / prescribed premises
Lake Way	9.3 km
Lake Violet	1.5 km
Priority Ecological Community - Stygofauna assemblages associated with lake Violet Calcrete system	2.6 km

4.4 Licence Holder controls

The Licence Holder has proposed the following management measures as part of the application:

Emission (as identified above)	Source	Proposed controls
Air emissions (particulates and contaminants)	Tyre fire in storage area	<ul style="list-style-type: none"> • Maximum of 300 tyres • Tyres stored at least 100m from hydrocarbon storage areas. • Storage area will be devoid of flammable materials.
Air emissions (particulates and contaminants)	Tyre/liner fire in disposal area	<ul style="list-style-type: none"> • Batches less than 1000 tyres and mill liners (in total) • Each batch separated by at least 100 mm of soil. • Location of batches will be surveyed and the GPS coordinates recorded and marked on the site map. • Final cover layer for disposed tyres and mill liners will be at least 500mm in depth.

5. Risk assessment

The identification of the sources, pathways and receptors to determine Risk Events are set out in the table below, consistent with the *Guidance Statement: Risk Assessments*. Risk ratings have been assessed for each key emission source and take into account potential source-pathway-receptor linkages.

The controls proposed by the Licence Holder have been considered in determining the risk rating.

The conditions in the revised Licence, as outlined in the table below, have been determined in accordance with the *Guidance Statement: Setting Conditions*.

The table below describes the Risk Events associated a tyre fire in accordance with the *Guideline: Risk Assessments* (June 2019). This table identifies whether each potential emission presents a material risk to public health or the environment, requiring regulatory controls.

5.1 Risk assessment – operation

Risk Event				Consequence rating*	Likelihood rating*	Risk*	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/ Activities	Potential emissions	Potential receptors, pathway and impact	Licence Holder controls					
Storage of tyres	Smoke from tyre fire	Air dispersion causing health impacts to residents of Bondini Community and Wiluna townsite	Refer to Section 4.4	Moderate	Rare	Medium	Controls proposed to limit ignition sources and size of a fire. Nearest community is 3km away. Licence Holder controls to be conditioned, plus additional fire control conditions as per similar facilities.	Condition 1.2.13
	Discharge of fire water	Direct runoff to surrounding vegetation, or contamination of surface water which may run off to salt lakes, including PEC	NA	Moderate	Rare	Medium	The nearest salt lake is 1.5km away. Potential for mid level impacts to vegetation on site. Fire water containment conditions required.	
Burying of used tyres and mill liners	Smoke from tyre fire	Air dispersion causing health impacts to residents of Bondini Community and Wiluna townsite	Refer to Section 4.4	Moderate	Rare	Medium	Controls proposed to limit ignition sources and size of a fire. Nearest community is 3km away. Licence Holder controls to be conditioned.	Condition 1.2.1
	Discharge of fire water	Direct runoff to surrounding vegetation, or contamination of surface water which may run off to salt lakes, including PEC	NA	Minor	Rare	Low	The nearest salt lake is 1.5km away. Fire water likely to stay within disturbed area of waste rock facility. Fire water containment condition required.	

*Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

6. Consultation

Method	Comments received	DWER response
Department of Mines and Industry Regulation advised of proposal (22/4/2020)	Investigating non-compliances including some related to the Bulletin WRD.	Confirmed by phone that approving tyre disposal in this WRD would not impact these investigations. No further action required.
Licence Holder referred draft documents (27/5/2020)	<ul style="list-style-type: none"> • Condition 1.2.13(g) modified to specify that hardstand maybe either earthen or concrete • Cross reference error identified • Mining Proposal details provided • Remainder of comment period waived 	Requested changes made.

7. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that the application to amend licence L5206/1987/10 will be granted, and categories 57 and 63 will be added to the licence subject to the conditions identified below:

- Condition 1.2.1 – provides controls relating to fire prevention and management with respect to tyres and mill liners buried in waste rock dumps
- Condition 1.2.12 – provides controls relating to fire prevention and management with respect to tyre storage

These conditions reflect the controls determined to be and necessary for emissions management, administration and reporting requirements.

Tim Gentle
MANAGER, RESOURCE INDUSTRIES
REGULATORY SERVICES

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

Appendix 1: Key documents

Document title	Availability
Licence L5206/1987/10 amendment application form and supporting documentation (25 March 2020)	DWER records (A1879056)
Supplementary information for amendment application (L5206/1897/10/2019/1)	DWER records (A1893643)
DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	Accessed at www.dwer.wa.gov.au
DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	
DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	
DER, February 2017 <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	
DWER, June 2019 <i>Guideline: Decision Making</i> Department of Water and Environmental Regulation, Perth.	
DWER, December 2019. <i>Landfill Waste Classification and Waste Definitions 1996 (as amended 2019)</i> . Department of Water and Environmental Regulation, Perth.	Accessed at www.der.wa.gov.au/images/documents/our-work/licences-and-works-approvals/WasteDefinitions-revised.pdf