



<b>Licence Number</b>	L8493/2010/2
<b>Licence Holder</b>	Rosslyn Hill Mining Pty Ltd
<b>ACN</b>	075 523 661
<b>File Number:</b>	2012/006880
<b>Premises</b>	Paroo Station Mine Site Mining leases M53/502, M53/503, M53/504, M53/1002 and miscellaneous leases L53/106, L53/107, L53/108 and L53/149 WILUNA WA 6646
<b>Date of Amendment</b>	24 June 2019

## Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

**Rebecca Kelly**  
**A/Senior Manager, Resource Industries**

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

# 1. Definitions

In this Amendment Notice, the terms in the Table below have the meanings defined.

Term	Definition
ACN	Australian Company Number
Amendment Notice	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
Delegated Officer	an officer under section 20 of the EP Act
Department	means 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
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 Review
Licence Holder	Rosslyn Hill Mining Pty Ltd
m <sup>3</sup>	cubic metres
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 <i>Guidance Statement: Risk Assessment</i>

## 2. Amendment Description

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

This notice is limited only to an amendment for Category 5, specifically relating to dust monitoring requirements. No changes to the aspects of the original Licence relating to Categories 85 and 89 have been requested by the Licence Holder.

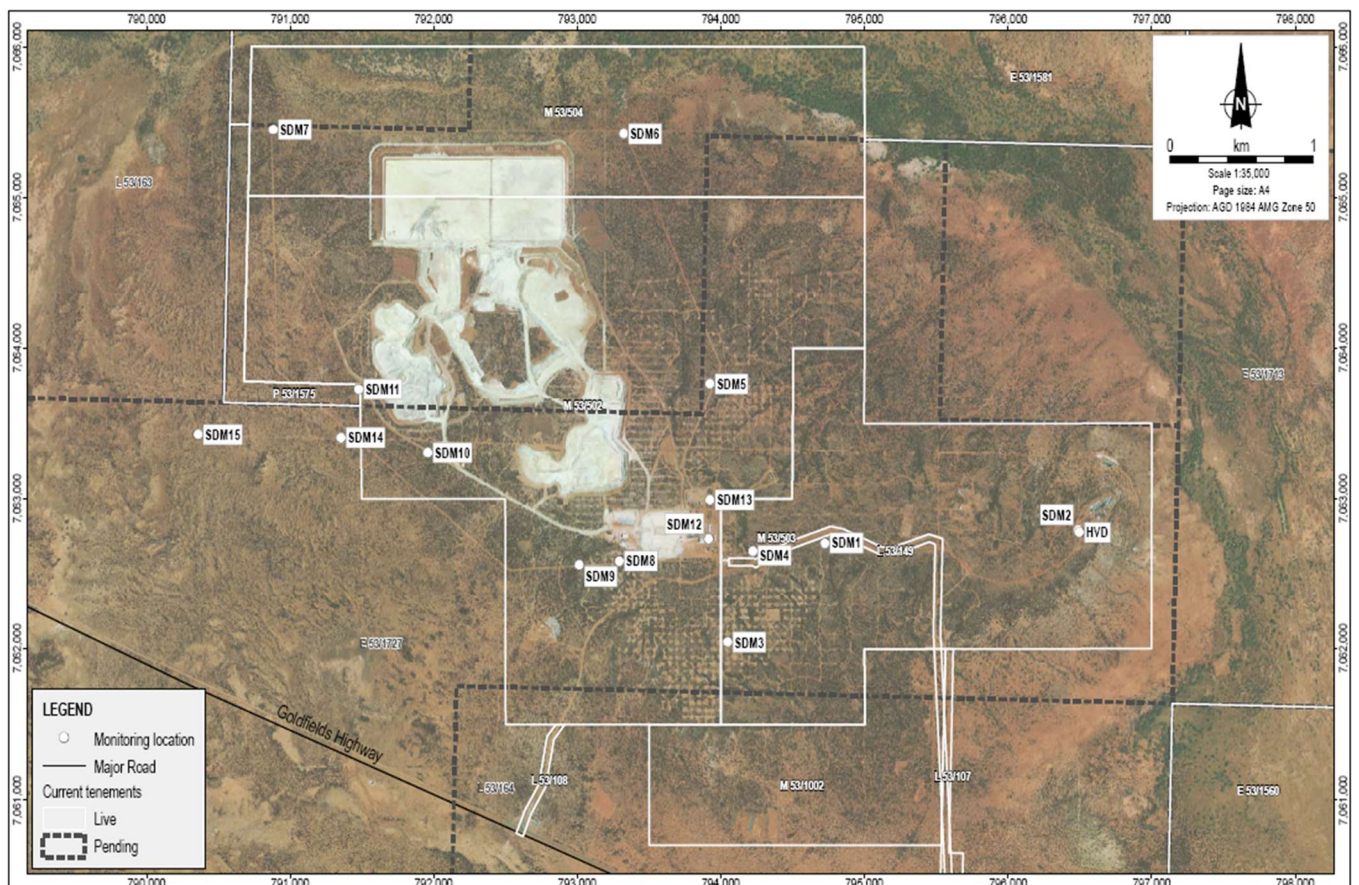
The following guidance statements have informed the decision made on this amendment

- *Guidance Statement: Risk Assessment (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

Paroo Station Mine Site (PSMS) has been in a 'Care and Maintenance' phase since January 2015 due to a decline in world metal process. On 5 December 2017, Rosslyn Hill Mining Pty Ltd (Licence Holder) submitted an application for an amendment to Licence L8493/2010/2 to remove the requirement for high volume dust sampler (HVD) and static dust deposition gauge (SDM1to15) monitoring while the mine is in care and maintenance.

PSMS is a conventional lead carbonate concentrate processing plant with a capacity to process 1.7 million tonnes per annum of lead carbonate ore. The existing licence requires the Licence Holder to undertake monitoring of total suspended particulates ( $\mu\text{g}/\text{m}^3$ ) and lead ( $\mu\text{g}/\text{m}^3$ ) every 6 days from a high volume dust sampler and mass deposition rate ( $\text{mg}/\text{m}^2/\text{month}$ ) from 15 static dust deposition gauges (SDM1-SDM15). Figure 1 shows the location of these monitoring sites.

**Figure 1: Dust monitoring sites.**



### 3. Other approvals

Legislation	Number	Approval
Part IV of the <i>Environmental Protection Act 1986</i> (EP Act)	Ministerial Statement (MS) 1083, published 25 September 2019	Directions from MS 1083 outline a detailed transport plan from Paroo Station Mine to the Port of Fremantle. MS 1083 does not include any requirements for dust monitoring on the mine site. These matters are regulated under Part V of the EP Act.

### 4. Amendment history

Instrument	Issued	Amendment
L8493/2010/1	29/11/2010	Licence reissue (L7982/2004/5 ceased and reissued as L8493/2010/1)
L8493/2010/1	24/10/2013	Licence amendment, including conversion to new format, to change the Licensee and premise names and update licence conditions to correct inaccuracies related to monitoring.
L8493/2010/2	15/08/2014	Licence amendment to increase frequency of groundwater monitoring and authorise re-routing of a tailings pipeline.
L8493/2010/2	14/02/2017	Licence amendment to authorise construction and operation of the Integrated Waste Landform. Authorisation to accept product (lead carbonate concentrate) waste in the event of a spill during transport to the port. Addition of categories 85 and 89. Administrative changes made by the Department.
L8493/2010/2	24 June 2019	Licence amendment to reduce the frequency of the high volume dust sampler and static dust deposition gauge monitoring while the mine is under care and maintenance.

### 5. Location and receptors

The Table below lists the relevant human and environmental receptors in the vicinity of the Prescribed Premises, which may be receptors relevant to the proposed amendment.

Human receptors	Distance from Prescribed Premises
Wiluna town site	30 km west of the premises.
Environmental receptors	Distance from Prescribed Premises
Surface water	An ephemeral Creek System (Negri Creek) is located approximately 3.5km east of the mine site. No nearby <i>Rights in Water and Irrigation Act 1914</i> surface water areas or rivers were identified using the Department's mapping software.
Groundwater	Monitoring results from the premises recent Annual Environmental Report (AER 2016) indicate depth to groundwater ranges from 6 – 3 meters below ground level (mbgl). Measurements for pH are in the neutral range of

	6-8. Total dissolved solids (TDS) range from 2000-11000 mg/L across the onsite monitoring bores. These figures are consistent with previous years monitoring results.
Conservation significant fauna	Priority 4 fauna (mammal) and threatened bird species were identified within the premises boundary during a fauna survey carried out by Bamford Consulting Ecologists prior to expansion of the site in 2014. Similar habitat is available in the area surrounding the premises so it is likely that similar fauna species will be present nearby (Bamford 2014).
Threatened or priority flora	No Rare Flora has been identified on or nearby the Premises.  A 2014 flora survey carried out by Miaia Environmental Consultancy identified six priority flora species within the premises boundary. The survey indicated that the flora within the premises boundary is comparable to vegetation in the surrounding areas (Miaia 2014)
Threatened or priority ecological communities	It has been identified on the DWER GIS data base that the edge of a 2km buffer surrounding a priority 2 ecological community (Millbillillie Bubble Well Calcrete P1) overlaps the southern boundary of the Premises.

## 6. Monitoring data

A review of dust monitoring data provided during operations, compared with data obtained during the C&M phase, indicate no real trend (increase or decrease) in Mass Deposition Rate of Total Solids per static dust monitoring station. Data is variable during both phases.

High Volume Dust monitoring results show a general decrease in Total Suspended Particulates during the C&M phase. However spikes in concentration still occur during C&M.

The Lead in Air concentration ( $\mu\text{g}/\text{m}^3$ ) data does not indicated any trend (increase or reduction) when comparing the two phases.

## 7. Risk assessment

The Table below describes the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. The risk table identifies whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Risk Event			Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities	Potential emissions	Potential pathway, receptors and impacts				
<b>Cat 5</b> Processing or beneficiation of metallic or non-metallic ore	Movements of vehicles, dust lift off from Tailings Storage Facility (TSF) and ore stockpiles during Care and Maintenance (C&M) phase.	Dust  Air/windborne emissions causing environmental impacts to priority flora and conservation significant fauna identified within Premises boundary, being the closest environmental receptors.	Minor	Unlikely	<b>Medium</b>	Activities that generate dust such as mining of lead ore, materials handling, operation of the processing plant (e.g. crushing and screening), and transport of material via conveyor belt to the semi-autogenous grinding (SAG) mill will not occur during C&M.  However, it is assumed that there are no dust mitigation controls being implemented during C&M, and therefore dust lift off containing lead may still occur from the TSF surface, stockpiles and roads.  Lead containing dust can contaminate soil and affect flora. It can also be ingested by fauna.
		Air/windborne dust emissions causing adverse health impacts to human receptors (30km east)	Major	Rare	<b>Medium</b>	Particulate matter that is less than 10 (PM <sub>10</sub> ) or 2.5 (PM <sub>2.5</sub> ) micrometres in diameter can be drawn deep into the lungs causing major human health impacts.  Although the lead contaminated dust may cause major impacts to human health, the proximity to the receptors means that this would only occur in rare circumstances.

## 8. Decision

The Delegated Officer has determined that dust emissions generated during C&M presents a medium risk to the environment and that the available monitoring data to date has not clearly demonstrated that the overall level of dust emissions from the Premises has decreased during the C&M phase.

Due to the toxic nature of lead and the medium risk of impact to the environment and public health, the Delegated Officer considers that it is suitable to maintain requirements for dust monitoring on the existing licence during the C&M phase.

However, as operations are not occurring on the premises, the Delegated Officer considers that the medium risk rating is sufficient to reduce the frequency at which dust monitoring is undertaken as detailed in section 10 below. The reduction in dust monitoring frequency does not alter the risk rating of the Premises and provides the relevant ongoing data required to effectively monitor dust emissions from the Premises. The Delegated Officer considers it crucial that the Licence Holder notifies the CEO in advance of Premises operations recommencing, to allow the frequency of dust monitoring to be reconsidered.

## 9. Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 21 June 2019 and the Licence Holder requested to waive the consultation period.

## 10. Amendment

- Table 3.2.1 of Condition 3.2.1 is amended by the insertion of the text shown in red underline and the removal of text shown in strikethrough below:

<b>Table 3.2.1: Monitoring of ambient air quality</b>				
<b>Monitoring point reference and location</b>	<b>Parameter</b>	<b>Units</b>	<b>Frequency</b>	<b>Method</b>
High volume dust sampler HVD (as shown in Schedule 1)	Total suspended particulate <sup>1</sup>	µg/m <sup>3</sup>	Every <u>two weeks</u> <del>sixth day</del>	AS/NZS 3580.9.3:2003 USEPA Compendium Method IO-3.1 and IO-3.4.
	Lead	µg/m <sup>3</sup>	Every <u>two weeks</u> <del>sixth day</del>	AS/NZS 3580.9.3:2003 USEPA Compendium Method IO-3.1 and IO-3.4.
Static dust deposition gauges- SDM1, SDM2, SDM3, SDM4, SDM5, SDM6, SDM7, SDM8, SDM9, SDM10, SDM11, SDM12, SDM13, SDM14 and SDM15 (as shown in Schedule 1)	Mass deposition rate	mg/m <sup>2</sup> /month	Every <u>two months</u> <del>Monthly</del> <sup>2</sup>	AS/NZS 3580.10.1:2003

- Condition 4.3.2 has been inserted into the Licence as shown below:

**4.3.2** *The Licensee must notify the CEO a minimum of three months prior to operations recommencing at the Premises.*

## Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L8493/2010/2	Licence	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
2	Application to amend Licence L8493/2010/2	Application	DWER records (A1574373)
3	Rosslyn Hill Mining Annual Environmental Report 2016 for the Department of Environmental Regulation Prescribed Premises Licence L8493/2010/2, March 2017	AER 2016	DWER records (A1402050)
4	Rosslyn Hill Proposed expansion areas fauna assessment, Bamford consulting ecologists, 30 July 2014.	Bamford 2014	DWER records (A823760)
5	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2016a	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
6	Licence L8493/2010/2 – Paroo Station Mine	L8493/2010/2	
7	Rosslyn Hill Mining Combined Single Phase Level 2 Flora and Vegetation Assessment and Targeted Flora Survey, 22 July 2014, Maia Environmental Consultancy.	Miaia 2014	DWER record (A823761)

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