



Amendment Notice 2

Licence Number	L8815/2014/1
Licence Holder	Shire of Leonora
File Number:	DER2014/000601-1~1
Premises	Shire of Leonora Refuse Site Reserve 31924 Lot 521 LEONORA WA 6438
Date of Amendment	1 March 2019

Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Works Approval 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.

Steve Checker

MANAGER WASTE INDUSTRIES

REGULATORY SERVICES

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

Definitions and interpretation

Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
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 info@dwer.wa.gov.au
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
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
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
HDPE	High Density Polyethylene
Licence Holder	GSM Mining Company Pty Ltd
Minister	the Minister responsible for the EP Act and associated regulations

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>

Amendment Notice

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 61 approved design capacity. No changes to the aspects of the original licence relating to Category 61 have been requested by the Licence Holder.

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

- *Guidance Statement: Regulatory Principles* (July 2015)
- *Guidance Statement: Setting Conditions* (October 2015)
- *Guidance Statement: Decision Making* (February 2017)
- *Guidance Statement: Risk Assessment* (February 2017)

Amendment description

The Licence Holder operates liquid waste ponds located to the southeast of the town of Leonora. The source of the waste received includes waste from the town septic tanks, mine camps, and from the Water Corporation tanker trucks. The liquid waste is treated through a process of separation of solids in primary ponds, overflowing into an evaporation pond. The treated sludge is then transported to the nearby landfill for disposal. The closest two residential dwellings to the premises are 1.4km away, with the closest town residential dwellings over 2km away. There are two non-perennial water courses that only flow during heavy rain events 650m north of the site and 670m to the south. These watercourses flow into Lake Raeside, a salt lake approximately 7.5km south of the site. Groundwater on site is estimated to be around 24m below ground level, unsaturated rock with clayey infilled joints separate the aquifer from the ponds.

This Amendment Notice is as a result of an application from the Licence Holder received by DWER on 18 January 2019 to increase the permitted Category 61 (Liquid waste facility) design capacity from 3,000 to 4,643 tonnes per annual period due to the construction of two reinforced primary concrete ponds and a secondary evaporation pond with both Geosynthetic Clay and HDPE liner as per the licence amendment that was granted 10 November 2016. It is noted by the Licence Holder that the evaporation pond was built to have a total capacity of 4,800 kilolitres/tonnes, however the engineer has signed off on the total capacity as the previously approved 4,643 tonnes. DWER was notified of the completion of works on 19 November 2018 and correspondence sent to the Licence Holder on 05 December 2018 stating the construction was completed in accordance with Licence conditions.

Amendment history

Table 2 provides the amendment history for L8815/2014/1.

Table 2: Licence amendments

Instrument	Issued	Amendment
L8815/2014/1	21/08/2014	New Licence issued for Category 61.
L8815/201/1	29/04/2016	Licence Amendment to extend the Licence duration to 24 August 2030.
L8815/2014/1	10/11/2016	Licence amended to allow for the construction of two concrete sumps, lining of the existing liquid waste ponds with composite liner and installation of perimeter fence.

L8815/2014/1	16/02/2017	Amendment Notice: Increase Cat 61 acceptance from 2,000 to 3,000 tonnes per year due to an increase in resource sector activity in the area.
L8815/2014/1	27/02/2019	Amendment Notice 2: Amendment to increase permitted capacity of the evaporation pond approved in previous amendment.

Risk Assessment

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Liquid waste containment infrastructure overtopping	Wastewater (treated and untreated) and sludge including human effluent, hydrocarbons, and pathogens	Surrounding vegetation and ecosystem; Contamination to soil	Direct discharge	Nutrient Loading from wastewater can cause soil contamination inhibiting vegetation growth and survival subsequently leading to stress on native fauna and ecosystem function.	Moderate	Unlikely	Medium	<p>Conditions on the Existing Licence carry over to this Amendment including the requirement of a 500mm freeboard for each pond to prevent overtopping as per Licence Conditions 1.3.5, and 1.3.6.</p> <p>The Completion Report provided by WML (DWER file A1740516) indicates the evaporation and concrete ponds have been designed to allow for the 500mm freeboard, and it is to be managed by site personnel in accordance with conditions 1.3.5 and 1.3.6.</p> <p>The applicant states that regular inspections will be undertaken to ensure the condition and integrity of the ponds is maintained as per condition 1.3.6.</p> <p>Condition 1.2.2 requires the infrastructure incorporate bunding, kerbing or have a crest height above ground level to prevent liquid run-on and run-off for a 24hour duration, 1 in 20year ARI critical rainfall event without overflowing. The compliance report confirms this condition has been met with the new ponds.</p> <p>In accordance with condition 1.2.3 if the November 2016 amended Licence, the infrastructure have a minimum 300mm crest height above ground level to ensure storm runoff</p>

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
								<p>cannot flow into the waste storage infrastructures and subsequently become contaminated or lead to overflow of infrastructure.</p> <p>Condition 3.1.3 of the Existing Licence requires the Licence Holder keep a complaints management system. No complaints appear to have been submitted.</p> <p>The Delegated officer considers these controls acceptable in mitigating possible impacts to the surrounding vegetation, ecosystem and soil contamination.</p>
Liquid waste containment infrastructure overtopping	Wastewater (treated and untreated) and sludge including human effluent, hydrocarbons, and pathogens	<p>Nearby surface water bodies</p> <p>Non-perennial water courses 650m N and 670m S flowing into Lake Raeside-salt lake 7.5km S of site.</p> <p>Water tank 1.1km east of site and well with windmill 1.41km southeast of site</p>	Direct discharge	<p>Excess nutrients may cause eutrophication impacts to downstream water bodies.</p> <p>Adverse impact to human health and amenity should contact with contaminated water occur.</p>	Moderate	Unlikely	Medium	<p>As Above</p> <p>Nearest surface waterbodies are two non-perennial water courses that only flow during heavy rain events. They are located 650m north of the site and 670m south of the site</p> <p>The windmill well is associated with the small residential dwelling 1.4km southwest of the site and no further information is available on the water tank.</p> <p>The Delegated Officer considers the separation distance between the site and receptors, in conjunction with the controls currently in place as described above as acceptable in mitigating possible impacts to nearby surface waterbodies.</p>

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Liquid waste containment infrastructure overtopping	Wastewater (treated and untreated) and sludge including human effluent, hydrocarbons, and pathogens	Human health and amenity	Direct discharge	Wastewater including sewage may cause impacts to human health and amenity should contact with contaminated wastewater occur.	Moderate	Rare	Medium	<p>As above</p> <p>Closest sensitive residential receptor is 1.4km from the site and the town site is at least 2km from the site.</p> <p>A perimeter fence surrounds the compound to protect the public and fauna from coming into contact with the waste.</p> <p>The Delegated officer considers the separation distance to sensitive receptors and the controls already in place as described above as acceptable in mitigating risk to human health and amenity.</p>

Decision

The proposed amendment of the Licence L8815/2014/1 is made by the Delegated Officer pursuant to section 59(1) (a) of the EP Act.

The Delegated Officer has reviewed the compliance documentation provided by the Licence Holder (including the engineer certified design capacity of 4,643 tonnes/annum) and considers the increase of the permitted capacity from 3,000 to 4,643 tonnes per annual period is acceptable given the design capacity of the system, the results of the compliance report and controls already in place.

The Delegated officer notes that Licence conditions 1.3.5 and 1.3.6 require a minimum top of embankment freeboard of 500mm for each pond to minimise risk of overtopping.

The Delegated Officer also considers the separation distance from the nearest residential dwelling to be sufficient in mitigating any odour or health issues that may arise from the liquid waste facility.

The Delegated Officer has considered DER's *Guidance Statement: Regulatory Principles*, *Guidance Statement: Setting Conditions*, *Guidance Statement: Decision Making* and *Guidance Statement: Risk Assessment* in granting this amendment, and does not consider that this amendment will impact the risk profile of the premises, which is currently considered as low.

The increase in the approved premises production or design capacity to accommodate the new liquid waste containment infrastructure poses medium risk of overtopping, which can be mitigated and managed via controls and therefore has been granted by the Delegated Officer.

The Delegated Officer has amended Licence condition 1.3.2 to allow for 4,643 tonnes of category 61 waste to be received onsite.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 25 February 2019. Comments received from the Licence Holder have been considered by the Delegated Officer as shown in Appendix 2.

Amendment

1. The Prescribed premises category table on the Existing Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the red text shown in underline below.

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
61	Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treater or irrigated.	More than 100 tonnes	2000 <u>4,643</u> tonnes per annual period

2. Condition 1.3.2 of the Existing Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the red text shown in underline below:

1.3.2 *The Licensee shall only accept waste on to the premises if:*
a) it is of a type listed in Table 1.3.1;

- b) the quantity accepted is below any quantity listed in Table 1.3.1;
 c) it meets any specifications listed in Table 1.3.1.

Table 1.3.1: Waste acceptance			
Waste type	Waste code	Quantity limit	Specification¹
Septage wastes (Sewage) – domestic wastes from apparatus for the treatment of sewage	K210	3000 <u>4,643</u> tonnes per annual period	Liquid waste receipt in tankers. Discharged to primary treatment pond.
Waste from grease traps	K110		
Vegetable and food processing waste	K200		
Sewage	K210		Liquid waste receipt in tankers from Water Corporation.

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L8815/2014/1 – Shire of Leonora Refuse Site	L8815/2014/1	accessed at www.dwer.wa.gov.au
2	DER, July 2015. <i>Guidance Statement: Regulatory Principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
3	DER, October 2015. <i>Guidance Statement: Setting Conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
4	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2016b	
5	DER, November 2016. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	DER 2016c	

Appendix 2: Summary of Licence Holder comments

The Licence Holder was provided with the draft Amendment Notice on 25 February 2019 for review and comment. The Licence Holder responded on 25 February 2019 accepting the draft Amendment Notice and waiving the remaining comment period.