



Licence Number L8861/2014/1

Licence Holder Karratha Recycling Pty Ltd

ACN 163 991 106

File Number: DER2014/002439

Premises
Karratha Recycling Liquid Waste Facility
Exploration Drive
GAP RIDGE WA 6714
Being Lot 111 and 112 on Plan 75061

Date of Amendment 18 May 2018

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* 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.

Date signed: 18 May 2018

Steve Checker

**MANAGER LICENSING (WASTE INDUSTRIES)
REGULATORY SERVICES (ENVIRONMENT)**

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
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
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 33 Cloisters Square PERTH WA 6850 info@dwer.wa.gov.au
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 <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</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
Licence Holder	Karratha Recycling Pty Ltd
m ³	cubic metres

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>
UDR	<i>Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)</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. No changes to the aspects of the original Works Approval or Licence relating to Categories 35 and 61A 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: Land Use Planning (February 2017)*
- *Guidance Statement: Licence Duration (August 2016)*
- *Guidance Statement: Decision Making (November 2016)*
- *Guidance Statement: Risk Assessment (November 2016)*
- *Guidance Statement: Environmental Siting (November 2016)*

Amendment description

The Licence Holder submitted an application to the Department of Water and Environmental Regulation (DWER) on the 26 February 2018 to allow for the operation of an additional evaporation pond (Pond 5) which was constructed under Works Approval W5806/2015/1. The Premises accepts septage waste and grease trap waste for biological treatment with disposal being via evaporation.

Works Approval W5806/2015/1 was issued to the Licence Holder on 19 March 2015 for the construction of an additional evaporation pond. The addition evaporation pond was to be 145m x 85m with a max 2m depth, plus a 0.5m freeboard to allow for a 24-hour duration, 1 in 100 year storm deluge with a maximum with a maximum volume of 24,650m³. The Licence Holder amended the design due to space availability and future planning to construct 2 additional evaporation ponds both being 80m x 80m x 3.5m deep. This was achieved by changing the pond layout and using common bund walls for all adjacent ponds that allowed the pond surface area to be modified to fit in the designated design area.

The Licence Holder has outlined that all earthworks were completed as per Works Approval W5806/2015/1 Pond 5 now brings the total combined capacity of the facility to approximately 37,000 tonnes.

This Licence amendment is for the operation of Pond 5 only. The Licence Holder will be required to submit an additional Licence amendment application for the operation of the additional evaporation pond (Pond 6 in sequence).

Table 2: Proposed changes

Category	Current design capacity	Proposed design capacity
61	20,000 tonnes per annual period	70,000 tonnes per annual period

Amendment history

Table 4 provides the amendment history for L8861/2014/1.

Table 3: Licence amendments

Instrument	Issued	Amendment
L8861/2014/1	07/02/2018	Amendment Notice 1 for acceptance of additional liquid waste categories
L8861/2014/1	18/05/2018	Amendment Notice 2 for the operation of Pond 5 and increase of Category 61 capacity

Location and receptors

Table 5 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 4: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
Accommodation Village	2.05km north east
Residential receptors (Madigan Estate)	2.7km north east

Table 6 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 5: Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Groundwater	Between 7.3-10 metres below ground level, flowing in a northerly direction toward Nickol Bay.
Threatened Ecological Community (TEC)	Premises is within a TEC buffer zone
7 mile creek	500m east

Risk assessment

Table below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls

Table 6: Risk assessment for proposed amendments during operation

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Cat 61 Liquid waste facility	Acceptance and treatment of septage and grease trap wastes	Odour	Accommodation Village 2.05km away	Air/wind dispersion	Amenity impacts	Minor	Unlikely	Medium	<p>The receival pits which feed into the receival ponds will be hosed down every load is deposited to remove any remnants. The discharge into the receival ponds is done beneath the surface of the ponds so to not comprise the surface layer crust on the ponds.</p> <p>The Delegated Officer noted that the nearest sensitive receptor is more than 2km from the premises and notes that no odour complaints have been received by DWER regarding the premises.</p> <p>The Delegated Officer considers any odour emissions can be regulated under S49 of the EP Act.</p>
		Discharge to land Spillage of septage waste grease trap waste and overtopping of pond embankments to the environment	Groundwater Between 7.3-10 mbgl.	Infiltration to groundwater through underlying soils	Contamination of land and underlying groundwater	Minor	Unlikely	Medium	<p>The capacity of the additional evaporation pond is 22,400m³. The Licence Holder has also outlined that they intend to allow 500mm freeboard (19,200m³) the total capacity of the LWF is now 37,000m³. The yearly evaporation rate for the area is 3.3m.</p>

									<p>The Delegated Officer considers a spill of partially treated wastewater to the environment as minor due to the depth to groundwater and no known uses of groundwater in the area. The Delegated Officer considers the likelihood of a spillage to be unlikely due to the freeboard condition requiring 500mm on all ponds. The Delegated Officer considers the risk of spillage to be medium.</p>
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Decision

The Delegated Officer has determined that an amendment be made to the Licence conditions to allow the operation of the additional evaporation pond. The Delegated Officer considered the potential impacts of odour emissions and discharges to land from spillages and overtopping of evaporation ponds. The existing containment infrastructure at the premises is sufficient to accept septage waste grease trap waste. Conditions relating to pond integrity are already on the Licence and are sufficient in providing environmental protection and preventing an unauthorised discharge from comprised ponds.

The capacity of the premises has been increased to 70,000 tonnes per year. The Delegated Officer notes that the ponds do not appear to be sufficiently sized to accommodate this volume on an ongoing annual basis, however it is understood that the Licence Holder has advised that the proposed tonnage represents a maximum acceptance volume in a 'boom year' which and would need to be offset by periods of reduced waste acceptance to prevent overtopping. The Delegated Officer accepts that the pods are adequately sized to allow this method of operation and is satisfied that overtopping of the ponds will be adequately regulated through Condition 1.3.5 of the Licence which requires a freeboard of 500mm to be maintained on all ponds.

Condition 1.3.2 of the Licence has been amended for the Licence Holder to accept 70,000 tonnes of combined septage waste grease trap waste and high saline industrial wash waters, which was the subject of a previous amendment signed on 7 February 2018.

Condition 1.3.4 has been amended to require maintenance of the additional evaporation pond (Pond 5) lining with an impermeable synthetic membrane conforming to DWER's *Water Quality Protection Note 27*. Lining of the additional pond to this standard was a condition of Works Approval W5806/2015/1 and was intended to be carried through to the licence. Compliance documentation submitted has outlined that the additional evaporation pond has been lined in accordance with the manufacturer's specifications.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 23 March 2018. Comments received from the Licence Holder have been considered by the Delegated Officer as shown in Appendix 2.

Amendment

1. Prescribed Premises Categories are amended by the insertion of the red text shown in underline and by the deletion of the text shown in strikethrough below:

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
35	Asphalt manufacturing - premises on which hot or cold mix asphalt is produced using crushed or ground rock aggregates mixed with bituminous or asphaltic materials for use at a place or premises other than those premises.	Not Applicable	40,000 tonnes per annual period
61	Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated.	1,000 tonnes or more per year	20,000 <u>70,000</u> tonnes per annual period
61A	Solid Waste Facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated or discharged onto land	1,000 or more tonnes per year	20,000 tonnes per annual period

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

1.3.2 The Licensee shall only allow waste to be accepted on to the Premises if:

- (a) it is of a type listed in Table 1.3.1; and
- (b) the quantity accepted is below any limit listed in Table 1.3.1; and
- (c) it meets any specification listed in Table 1.3.1

Table 1.3.1: Waste acceptance			
Waste type	Waste Code	Quantity limit	Specification ¹
Sewage	N/A	20 70 ,000 tonnes per annual period (combined)	Liquid waste receipt in tankers. Discharged to primary treatment pond
Septage wastes (Sewage) – domestic wastes from apparatus for the treatment of sewage	K210		
Waste from grease traps	K110		
Processed RAP	N/A	20,000 tonnes per annual period	The Licensee shall ensure that Processed RAP does not contain any of the following materials: <ul style="list-style-type: none"> granular pavement materials, clay, soil or organic matter; bricks, concrete, glass or building materials; or laterite asphalt, tar based products, geotextile fabrics, raised pavement markers or surface treatments such as high friction surfacings or green or red pavement markings.

3. Condition 1.3.4 of the Licence is amended by the insertion of the red text shown in underline and by the deletion of the text shown in strikethrough below:

1.3.4 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.3.3.

Table 1.3.3: Containment infrastructure		
Vessel or compound	Material	Requirements
Receiving pit	Wastewater	Impermeable receptacle or storage chamber.
Pond 1 (receiving anaerobic pond)	Wastewater	Lined with a geosynthetic clay liner in accordance with WQPN 27.
Pond 2 (receiving anaerobic pond)	Wastewater	Lined with a geosynthetic clay liner in accordance with WQPN 27.
Pond 3 (facultative aerobic pond)	Treated wastewater	Lined with a geosynthetic clay liner in accordance with WQPN 26.
Pond 4 (evaporation pond)	Treated wastewater	Lined in accordance WQPN 27 with a synthetic membrane.
<u>Pond 5 (evaporation pond)</u>	<u>Treated wastewater</u>	<u>Lined in accordance with WQPN 27 with a synthetic membrane.</u>
Sewage sludge compound	Sewage sludge	Temporary or permanent infrastructure to consist of a bunded hardstand or lined area (lined to achieve a permeability of less than 10 ⁻⁹ m/s or

		equivalent), capable of preventing surface run-off of leachate and sludge and which includes a leachate collection system
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Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L8861/2014/1 Karratha Recycling Liquid Waste Facility	L8861/2014/1	accessed at www.dwer.wa.gov.au
2	Works Approval W5806/2015/1–Karratha Recycling Liquid Waste Facility	W5806/2015/1	accessed at www.dwer.wa.gov.au
3	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
4	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
5	DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	DER 2016a	
6	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2016b	
7	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 23 March 2018 for review and comment.

Condition	Summary of Licence Holder comment	DWER response
1.3.2	Karratha Recycling initially intended to accept 85,000 tonnes of liquid waste per year based on estimated derived from similar approvals granted by DWER.	<p>DWER has allowed an approved capacity of 70,000 tonnes of liquid waste per year based on a water balance calculation demonstrating that 70,000 tonnes of liquid waste would theoretically be able to be accepted during a 'boom year' – but would need to be offset by the acceptance of a reduced amount in following years.</p> <p>The Delegated officer is satisfied that the risk of overtopping is mitigated as Karratha Recycling are required to comply with condition Condition 1.3.5 of the Licence which requires a freeboard of 500mm to be maintained on all ponds.</p>