



Amendment Notice 1

Licence Number L9127/2018/1

Licence Holder City of Greater Geraldton

File Number: DER2018/000553-1~1

Premises

Meru Waste Disposal Facility
61 Landfill Lane, off Goulds Road
NARNGULU WA 6532

Legal description –
Being Lot 204 on Plan 403161 and
Lot 2268 on Plan 250829

Date of Amendment 12 February 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 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 Environmental Protection Act 1986 Locked Bag 33 Cloisters Square PERTH WA 6850 info@dwer.wa.gov.au
Delegated Officer	an officer under section 20 of the EP Act
DWER	Department of Water and Environmental Regulation
EP Act	<i>Environmental Protection Act 1986 (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	City of Greater Geraldton
Premises	refers to the premises to which this Amendment Notice applies, as specified at the front of this Amendment Notice
Risk Profile	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 to the working hours for the construction of Cell 5 and the Septage Pond. No changes to the aspects of the original licence relating to Categories 13, 57, 61, 61A, 64, and 67A 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)
- *Guidance Statement: Environmental Siting* (November 2016)

Amendment description

As per condition Construction Condition C2 of the Existing Licence L9127/2018/1, the Licence Holder must ensure works relating to Septage Pond and Cell 5 construction are carried out during the following operational hours:

- 0730 to 1630 Monday to Saturday, excluding Sundays and Public Holidays.

Due to the location of the premises, the Licence Holder lodged an application to amend the licence on 03 January 2019 requesting the following operational hours for the construction of Cell 5 and the Septage Pond.

- 0700 to 1800 Monday to Saturday, excluding Sundays and Public Holidays.

Amendment history

Table 2 provides the amendment history for L9127/2018/1.

Table 2: Licence amendments

Instrument	Issued	Amendment
L9127/2018/1	12/02/2019	Amendment Notice 1- extension of operational hours during the construction of Cell 5 and Septage Pond.

Decision

The Delegated Officer considers that the extension of operational times for the construction of Cell 5 and Septage Pond does not impact the risk profile of the premises. The assigned noise levels required to be met under the *Environmental Protection (Noise) Regulations 1997* are the same for the proposed hours of construction and the currently approved hours of construction as the proposed hours do not enter into a more sensitive time range.

The Delegated Officer has granted Amendment Notice 1 to accommodate the requested extension to operational hours for the construction of Cell 5 and Septage Pond to 0700 to 1800 Monday to Saturday, excluding Sunday and Public Holidays.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 08 February 2019. Comments received from the Licence Holder have been considered by the Delegated Officer as shown in Appendix 2.

Amendment

1. Table 1 of the Existing Licence is amended by the deletion of the text shown in strikethrough and the insertion of the red text shown in underline below:

Table 1: Works specifications	
Column 1	Column 2
Infrastructure	Specifications (design and construction)
Septage pond construction	
1. General	<p>The Licence Holder must ensure that:</p> <p>a) Works are not carried out outside of the following operational hours:</p> <ul style="list-style-type: none">• 7:30 <u>0700</u> to 16:30 <u>1800</u> – Monday to Saturday, excluding Sundays and Public Holidays; <p>b) Haul roads, fill material and spoil stockpiles are to be kept damp during operational hours.</p>

Table 1: Works specifications	
Column 1	Column 2
Infrastructure	Specifications (design and construction)
2. Geomembrane liner installation	<p>The Licence Holder must ensure that the liner:</p> <ul style="list-style-type: none"> a) is placed on the base of the existing location of the western septage pond area, and is to be cleared of any sludge/ debris and compacted, prior to laying of the liner; b) base fill material is compacted using a 12 tonne padfoot roller or greater to achieve horizontal layers not exceeding 200 mm in thickness after compaction; c) base fill material is tested against AS1289 for standard compaction minimum dry density ratio and optimum moisture content; d) base fill material is clear of indentations and desiccation cracks; e) is secured via anchor trenches that are backfilled and compacted using a vibrating plate compactor in 250 mm thick layers, after compaction; f) is not less than 2 mm thick, consisting of new HDPE geomembrane liner; g) is welded at all joins and/ or penetrations to ensure the liner is completed sealed; h) complies with WQPN 26 – Liners for containing pollutants, using synthetic membranes; i) is installed according to Appendix A - construction specifications, as prepared by Bowman & Associates Pty Ltd, dated 13 December 2017.
3. Western septage pond	<p>The Licence Holder must ensure that the upgraded septage pond:</p> <ul style="list-style-type: none"> a) includes a below surface inlet pipe for incoming septage to ensure that the anaerobic crust on the pond is not disrupted, when in full operation.
4. Associated works	<p>The Licence Holder must undertake, construct and/ or install the following:</p> <ul style="list-style-type: none"> a) Removal of the existing septage extraction sump and footing; b) Modifications to the reinforced concrete floor in the discharge shed; c) Installation of a 225 mm PVC pipe in the base of the discharge sluice and sealed to the HDPE geomembrane liner; d) Replacement of the reinforced concrete sluice structure to a reinforced concrete end wall into a pit; e) Installation of two transfer pipes.
5. Hydrocarbon storage and management	<p>The Licence Holder must ensure that all hydrocarbons:</p> <ul style="list-style-type: none"> a) are located in impervious vessels on a bunded, hardstand surface or within an impervious self bunded tank; b) are managed in accordance with AS1940; c) are located in a designated area, away from any flammable/ combustible sources; d) used for the refuelling of vehicles to be done over a bunded hardstand area for the capture and containment of any spills; e) stored at the premises are fully lockable.

Table 1: Works specifications	
Column 1	Column 2
Infrastructure	Specifications (design and construction)
Cell 5 construction and associated infrastructure	
6. Cell 5 construction: General	<p>The Licence Holder must ensure that:</p> <ol style="list-style-type: none"> works are carried out during the following operational hours: <ul style="list-style-type: none"> 7:30 0700 to 16:30 1800 – Monday to Saturday, excluding Sundays and Public Holidays. Cell 5 is constructed 153 m x 195 m (29,000 m²/ 2.90 ha) in size; Cell 5 internal batter slopes are compacted and have a 1:3 ratio; Cell 5 perimeter bund has a 2% fall and the floor has a 1.2% fall from West to East to assist leachate drainage into the leachate sump; All equipment used on site must have appropriate emission control devices and be maintained regularly; the new cell has anchor trenches included which must secure the liner materials from Cell 5, and be back filled with a 250 mm thick compacted soil layer; the anchor trenches are sloped away from the landfill to prevent stormwater entering Cell 5; all works carried out must comply with the construction quality assurance procedures and processes as defined within the <i>'Meru Waste Disposal Facility Licence amendment – Construction of Cell 5, Bowman and Associates Pty Ltd, 8 February 2018'</i> document, as submitted to DWER on 15 February 2018.
7. Cell 5: Subgrade soils	<p>The Licence Holder must ensure that the subgrade soils:</p> <ol style="list-style-type: none"> have a moisture content between 3% dry and 2% wet of optimum moisture content and a minimum standard compaction of 95% during placement, in accordance with AS 1289 <i>'Methods of testing soils for engineering purposes'</i>; are uniform and free from all sharp or angular objects that may damage the liner.
8. Cell 5: Geosynthetic clay liner (GCL)	<p>The Licence Holder must ensure that the GCL:</p> <ol style="list-style-type: none"> Rolls are hydrated, and with a moisture content of $\leq 35\%$; is reinforced and comprised of both woven and non-woven geotextile, fully needle punched together to contain the bentonite powder; installed over the base and side slopes of Cell 5; has a hydraulic conductivity of less than 1×10^{-9} m/s; is compliant with BPEM requirements.
9. Cell 5: High Density Polyethylene (HDPE) liner	<p>The Licence Holder must ensure that the HDPE liner is:</p> <ol style="list-style-type: none"> ≥ 2 mm thickness and textured on the face down side; Joined through fusion or extrusion welding, as appropriate, to ensure all liner membranes are sealed together in one impermeable unit, with no fractures or ruptures.

Table 1: Works specifications	
Column 1	Column 2
Infrastructure	Specifications (design and construction)
10. Cell 5: Cushion Geotextile	<p>The Licence Holder must ensure that the cushion geotextile is:</p> <ul style="list-style-type: none"> a) constructed from polypropylene, polyester, polyethylene and polyamide materials, either singularly or in combination; b) rot-proof, chemically stable and has low water absorption ability; c) non-woven with filaments bonded by needle punching, heat or chemical bonding processes; d) joined to adjacent sheets through stitching or heat-bonding only, with no cross joints on slopes steeper than 1:5 ratio.
11. Leachate sump and drainage layer (including pipework)	<p>The Licence Holder must ensure that the:</p> <ul style="list-style-type: none"> a) leachate drainage layer consists of perforated HDPE pipes placed herringbone style across the floor of Cell 5, and covered with ≥ 300 mm of single sized 50 mm crushed hard rock aggregate; b) leachate sump consists of a depression in the base of Cell 5 and is lined in the same manner as the rest of Cell 5; c) leachate sump batter slopes have a ratio of 1:2 and is constructed 6 m x 6 m in size; d) 450 mm diameter pipe is installed from the sump up the cell wall; e) pipe work from the leachate sump will be fed through blind culverts, under the access road, to join the leachate pond to ensure all leachate is completely captured within the leachate pond.
12. Leachate pond and associated pump infrastructure	<p>The Licence Holder must ensure that the:</p> <ul style="list-style-type: none"> a) leachate pump is installed to extract leachate from the sump for discharge via the 450 mm pipework leading out of the sump to the leachate pond; b) leachate pond is constructed and lined in the same manner as Cell 5; c) leachate pond is 7,800 m² (0.78 ha) in size; d) leachate pond is constructed to contain all leachates emitted from Cell 5 and a 1:10 year, 72 hour ARI event; e) leachate pond is designed to maintain a minimum freeboard of 0.5 m, at all times.
13. Storm water containment ponds	<p>The Licence Holder must ensure that:</p> <ul style="list-style-type: none"> a) storm water channels are constructed to divert uncontaminated stormwater away from Cell 5 and into the stormwater containment ponds, for the containment of uncontaminated storm water only; b) the storm water ponds are constructed of in-situ soils that permit contained uncontaminated storm water to infiltrate to ground.
14. Groundwater monitoring bores: MW-1 to MW-4	<p>The Licence Holder must ensure that the groundwater monitoring bores are constructed and operational for the purpose of monitoring groundwater at the premises.</p>
15. Security fencing	<p>The Licence Holder must ensure that a 2 m high security fence is installed around the perimeter of Cell 5 and the leachate pond, with gates to permit vehicle and pedestrian access.</p>

Table 1: Works specifications	
Column 1	Column 2
Infrastructure	Specifications (design and construction)
16. Hydrocarbon storage and management	<p>The Licence Holder must ensure that:</p> <ul style="list-style-type: none"> a) any refuelling of mobile plants is undertaken within a designated area, on a bunded, hardstand; b) all hydrocarbons temporarily stored at the premises for use as part of the construction works, is contained within a bunded hardstand and separated from any combustible material by a minimum 10 m buffer; c) spill kits are available for use at the premises; d) all flammable or explosive products are stored in accordance with the <i>Explosives and Dangerous Goods Act</i> and the Department of Fire and Emergency Services (DFES).
17. Dust management	<p>The Licence Holder must ensure that:</p> <ul style="list-style-type: none"> a) site speed limits are 10 km/ hour; b) regular visual inspections are carried out during operational hours; c) dust management techniques are implemented (screening, mulching, hydro-seeding, chemical crusting agents, water trucks or sprays), as required, to ensure dust does not cross the boundary of the premises; d) all earthworks are watered down regularly to minimise windblown dust emissions.

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L9127/2018/1 – Meru Waste Disposal Facility	L4432/1989/14	accessed at www.dwer.wa.gov.au
5	DER, July 2015. <i>Guidance Statement: Regulatory Principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
6	DER, October 2015. <i>Guidance Statement: Setting Conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
8	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2016b	
9	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 08 February 2019 for review and comment. The Licence Holder responded with no comments on 12 February 2019 waiving the remaining comment period.