



Amendment Report

Licence Number	L6917/1997/8
Licence Holder	Town of Port Hedland
File Number:	DER2014/000670-1
Premises	South Hedland Landfill Reserve 41342 North Circular Road SOUTH HEDLAND WA 6721 Legal description – Being Lot 5813 on Plan 189435 As defined in Schedule 1
Date of Report	6 December 2019

1. Definitions and interpretation

Definitions

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

Table 1: Definitions

Term	Definition
Amendment Report	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: Chief Executive Officer Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 JOONDALUP DC WA 6027 Telephone: (08) 6367 7000 Facsimile: (08) 6367 7001 Email: 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 (WA)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
Licence Holder	Town of Port Hedland
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Amendment Report applies, as specified at the front of this Amendment Report.
Revised Licence	the amended Licence issued under Part V, Division 3 of the EP Act, with changes that correspond to the assessment outlined in this Amendment Report.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>

2. Amendment Description

The following guidance statements have informed the assessment and decision outlined in this Amendment Report:

- *Guidance Statement: Regulatory principles (July 2015)*
- *Guidance Statement: Setting conditions (October 2015)*
- *Guidance Statement: Publication of Annual Audit Compliance Reports (May 2016)*
- *Guidance Statement: Licence duration (August 2016)*
- *Guidance Statement: Environmental Standards (September 2016)*
- *Guidance Statement: Environmental Siting (November 2016)*
- *Guidance Statement: Land Use Planning (February 2017)*
- *Guidance Statement: Risk Assessments (February 2017)*
- *Guideline: Decision Making (June 2019)*
- *Guideline: Industry Regulation Guide to Licensing (June 2019)*

2.1. Purpose and scope of assessment

On 30 August 2019 the Licence Holder applied for an amendment to the Licence L6917/1997/8 in response to a recent DWER site inspection conducted on 15 March 2019. The requested amendments include:

- A reduction in the depth of daily cover required from 230mm of material to 100mm of material to align with similar Premises within the region;
- Authorisation to use a range of alternative cover material due to the difficulty in sourcing appropriate clean fill at present; and
- The correction of monitoring point references for the monitoring of ambient groundwater quality to align with current practices.

3. Amendment history

Table 2 provides the amendment history for L6917/1997/8.

Table 2: Licence amendments

Instrument	Issued	Amendment
L6917/1997/1	30/10/2000	Licence re-issue
L6917/1997/2	02/11/2001	Licence re-issue
L6917/1997/3	25/10/2002	Licence re-issue
L6917/1997/4	18/10/2003	Licence re-issue
L6917/1997/5	18/10/2004	Licence re-issue
L6917/1997/6	18/10/2005	Licence re-issue
L6917/1997/7	18/10/2008	Licence re-issue
L6917/1997/7	23/09/2010	Licence amendment to include septage ponds
L6917/1997/8	17/10/2011	Licence reissue
L6917/1997/8	29/04/2016	Amend to extend licence duration to 2035.
L6917/1997/8	28/09/2016	Inclusion of SBR for WWTP. Licence format updated and include increase capacity for liquid waste and solid waste
L6917/1997/8	4/07/2018	Amendment Notice 1: Initiated by the Licensee to shred the existing tyre stockpile and bury the shredded tyres in two mono cells and amendment to buffer between active cell and boundary fence to enable burial of tyres.
L6917/1997/8	3/09/2018	Amendment Notice 2: DWER initiated amendment to rectify an administrative error in the licence.
L6917/1997/8	19/10/2018	Amendment Notice 3: The Licence Holder applied for a licence amendment to clarify types of waste the Premises is licensed to

Instrument	Issued	Amendment
		accept in accordance with DWER Controlled Waste Category List (as amended in April 2015) and the addition of a Controlled waste category type (Waste code L150).
L6917/1997/8	6/12/2019	Amendments requested from the Licence Holder including a reduction in daily cover requirements, amendments to the monitoring of ambient groundwater quality monitoring point references to align with current practices, and authorise the use of alternative cover material. DWER has also consolidated/amalgamated separately issued amendment notices in the licence

4. Location and receptors

Table 3 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 3: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
South Hedland residential subdivision	~750m west of Premises
Privately owned Quarry	Immediately south of Premises
Port Hedland International Airport	~3km north of Premises

Table 4 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 4: Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Groundwater	4 – 17mbgl
Unallocated crown land containing native vegetation	Immediately surrounding the eastern and southern boundary of the Premises

5. Risk assessment

Table 5 below describes 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 5: Risk assessment for proposed amendments during operation

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Reduction in daily cover depth from 230mm to 100mm	Dust	Air/windborne pathway causing impacts to health and amenity of closest human receptors approximately 750m west from the Premises	<p>Current Licence Conditions 1.3.19, 1.3.21 and 2.3.2 adequately mitigate the risks of dust emissions, ensuring that treated wastewater or clean water is used for dust suppression on roads and access ways and that no pooling of treated wastewater occurs on areas of the premises used for dust suppression.</p> <p>The use of alternate daily cover material as part of this amendment will also reduce the risk of dust emissions impacting the nearest sensitive receptors.</p> <p>Treated wastewater will be used onsite for dust suppression as required.</p>	Slight	Unlikely	Low	<p>Aligns with current licensed practices at similar landfill Premises in the region.</p> <p>The Delegated Officer considers the separation distance between the source and receptors as adequate to inform the risk of dust emissions and does not consider additional regulatory controls are required given the licence amendment application risk assessment as additional dust emissions are not foreseeable and the dust can be adequately regulated by section 49 of the EP Act.</p>	Condition 1.3.5, Table 1.3.3: Cover requirements. Putrescible Wastes (where TarpArmour Tarpaulin system not in use) depth requirement amended from 230mm to 100mm, OR 7mm of Posi-Shell® cover system.

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
<p>Use of alternative cover materials including:</p> <ul style="list-style-type: none"> • Commercially available, fit for purpose spray on landfill cover (e.g. Posi-Shell®); • Glass fines mixed to a ratio of 1:1 clean fill; • Shredded green waste mixed to a ratio of 1:1 with clean fill. 	Dust	Air/windborne pathway causing impacts to health and amenity of closest human receptors approximately 750m west from the Premises	<p>Glass will be broken and separated out via a 50mm trammel. Glass fines will only be accepted for use as cover material if it meets the pre-determined quality acceptance criteria including the absence of windblown materials such as light plastics and paper fines and contaminants such as hydrocarbons.</p> <p>The Posi-Shell® cover system is designed to assist in suppressing dust emissions</p>	Slight	Unlikely	Low	<p>The Delegated Officer considers the separation distance between the source and receptors as adequate to inform the risk of dust emissions and does not consider additional regulatory controls are required given the licence amendment application risk assessment as additional dust emissions are not foreseeable and the dust can be adequately regulated by section 49 of the EP Act.</p>	<p>The addition of 'Posi-Shell®' definition into Condition 1.1.2 of the Licence.</p> <p>Inclusion of the following material in Table 1.3.3: Cover requirements.</p> <ul style="list-style-type: none"> • Glass fines mixed to a ratio of 1:1 with clean fill • Shredded green waste mixed homogeneously to a ratio of 1:1 with clean fill, or • Commercially available, fit for purpose spray on landfill cover (e.g. Posi-Shell® cover system)

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Use of alternative cover materials including: <ul style="list-style-type: none"> • Commercially available, fit for purpose spray on landfill cover (e.g. Posi-Shell®); • Glass fines mixed to a ratio of 1:1 clean fill; 	Windblown litter	Air/windborne pathway causing impacts to health and amenity of closest human receptors approximately 750m west from the Premises	Glass fines and shredded green waste will only be accepted for use as cover material if it meets the pre-determined quality acceptance criteria including the absence of windblown materials such as light plastics and paper fines.	Slight	Unlikely	Low	The Applicant's proposed controls are likely to be sufficient at mitigating windblown litter occurring from the use of glass fines and shredded green waste as an alternative cover material.	As above

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
<ul style="list-style-type: none"> Shredded green waste mixed to a ratio of 1:1 with clean fill. 	Contaminated runoff	Overland flow	<p>Posi-Shell® allows up to 95% water shed (run off). The Landfill currently incorporated surface water retention infrastructure to capture any runoff created on site.</p> <p>Posi-Shell® is non-toxic</p> <p>Glass fines and shredded green waste will only be accepted for use as cover material if it meets the pre-determined quality acceptance criteria including the absence of windblown materials such as light plastics and paper fines and contaminants such as hydrocarbons. .</p> <p>The landfill is considered dry and a component of shredded green waste mixed in with inert material as cover is not expected to contribute to contaminated runoff or leachate generation.</p>	Slight	Unlikely	Low	The Applicant's proposed controls are likely to be sufficient at mitigating contaminated runoff associated with the use of alternative cover material such as Posi-Shell®, glass fines or shredded green waste.	As above

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Use of alternative cover materials including: <ul style="list-style-type: none"> • Commercially available, fit for purpose spray on landfill cover (e.g. Posi-Shell®); • Glass fines mixed to a ratio of 1:1 clean fill; • Shredded green waste mixed to a ratio of 1:1 with clean fill. 	Fire	Air/windborne pathway causing impacts to health and amenity of closest human receptors approximately 750m west from the Premises	The Posi-Shell® spray on landfill cover is non-flammable in nature. To mitigate the risk of fire, the Licence holder proposes to blend the green waste with clean fill at a ratio of 1:1 to reduce the potential fuel load. The site staff operate under the existing operational procedures outlined in the Site's Fire Management Plan.	Moderate	Unlikely	Medium	The Applicant's proposed fire mitigation controls are likely to be sufficient at mitigating the risk of fire.	As above
Use of alternative cover materials including: <ul style="list-style-type: none"> • Shredded green waste mixed to a ratio of 1:1 with clean fill. 	Odour: associated with the use of green waste (a putrescible waste) as cover material	Air/windborne pathway causing impacts to health and amenity of closest human receptors approximately 750m west from the Premises	Licence holder proposes to blend the green waste with clean fill at a ratio of 1:1.	Minor	Unlikely	Low	The Delegated Officer considers the separation distance between the source and receptors as adequate to inform the risk of odour emissions.	The Delegated Officer does not consider additional regulatory controls are required.

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Update the monitoring point references for ambient groundwater quality monitoring	N/A	N/A	N/A	N/A	N/A	N/A	No potential emissions arise from the updating of the monitoring references to align with current practices.	Condition 2.4.1, Table 2.4.1: Monitoring of ambient groundwater quality. Monitoring point reference and location amended with the removal of BH1 – 8, and the insertion of BH01, BH02, MB02, MB03, and MB05.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the Department's Guidance Statement: Risk Assessments (February 2017)

6. Consultation

Table 6: Summary of consultation

Method	Comments received	DWER response
Application referred to DFES for advice on 13/11/2019	<p>DFES responded to DWER's request for advice on 04/12/2019 with the following comments:</p> <ul style="list-style-type: none"> Based on the information provided DFES has no objections to the proposed amendments as long as the detail and procedures in the <i>Amendment Application</i> and <i>Facility Fire Management Plan 2019</i> are adhered to. DFES sees no problem with the proposed systems, providing the alternative cover materials/ mixtures are completely homogenous, so that there are no localised concentrations of combustible material (e.g. green waste) and all combustible material which may either burn or self-heat (spontaneous combustion) is diluted as specified with other inert material (such as soil) so as to negate the potential hazard. 	DWER has included the following into Condition 1.3.5, Table 1.3.3, Cover requirements – Material – “... <i>shredded green waste mixed homogenously to a ratio of 1:1 with clean fill...</i> ”
Licence Holder was provided draft Amendment Report and Amended Licence on 07/11/2019	Licence Holder responded on 08/11/2019 with no comments on the documents, waiving the remaining comment period.	N/A

7. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a licence amendment will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

7.1. Summary of amendments

Table 7 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 7: Licence amendments

Condition No.	Proposed amendments
1.1.2	Definition of 'Posi-Shell®' added to the licence
1.3.5, Table 1.3.3	<p>Addition of the following cover material authorised to be used over Inert Waste Type 2 and Putrescible Wastes (where TarpArmour Tarpaulin system not in use):</p> <ul style="list-style-type: none"> Glass fines mixed to a ratio of 1:1 with clean fill; Shredded green waste mixed to a ratio of 1:1 clean fill; and Sprayable slurry/ commercially available, fit for purpose spray on landfill cover (e.g. Posi-Shell® cover system).
1.3.5, Table 1.3.3	Reduction to depth of cover material required for Inert Waste Type 2 and Putrescible Wastes (where TarpArmour Tarpaulin system not in use) from 230mm to 100mm, or 7mm of Posi-Shell® cover system.
2.4.1, Table 2.4.1	Amend Monitoring point reference and location from BH 1 – 8 to BH01, BH02, MB02, MB03, and MB05.
Schedule 1: Maps	Addition of up to date Groundwater Bore Locations map

Steve Checker
MANAGER WASTE INDUSTRIES
REGULATORY SERVICES

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

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L6917/1997/8 – South Hedland Landfill	L6917/1997/8	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, May 2016. <i>Guidance Statement: Publication of Annual Audit Compliance Reports</i> . Department of Environment Regulation, Perth.	DER 2016a	
5	DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	DER 2016b	
6	DER, September 2016. <i>Guidance Statement: Environmental Standards</i> . Department of Environment Regulation, Perth.	DER 2016c	
7	DER, November 2016. <i>Guidance Statement: Environmental Siting</i> . Department of Environment Regulation, Perth.	DER 2016d	
8	DER, February 2017. <i>Guidance Statement: Land Use Planning</i> . Department of Environment Regulation, Perth.	DER 2017a	
9	DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2017b	
10	DWER, June 2019. <i>Guideline: Decision Making</i> . Department of Water and Environmental Regulation, Perth.	DWER 2019a	
11	DWER, June 2019. <i>Guideline: Industry Regulation Guide to Licensing</i> . Department of Water and Environmental Regulation, Perth.	DWER 2019b	