



Licence Number L7827/2001/5

Licence Holder Abbots Liquid Salvage Pty Ltd

ACN 125 634 004

File Number: DER2014/001082-1

Premises Abbots Liquid Salvage
35494 Albany Highway
DROME WA 6330
Legal description –
Part of Lot 4638 on Plan 157018 within co-ordinates
(MGA Zone 50) -34.9376S, 117.7778E; -34.9375S,
117.7827E; -34.935S, 117.7827E; -34.9351S,
117.7810E; -34.9346S, 117.7770E; -34.9339S,
117.7806E.

Date of Amendment 6 February 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.

Tracey Hassell

**A/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
ACN	Australian Company Number
Amendment Notice	refers to this document
AS 4454	means the Australian Standard AS 4454 Compost, soil conditioners and mulches.
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
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	Abbotts Liquid Salvage Pty Ltd
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.

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

Abbotts Liquid Salvage Pty Ltd (the Licence Holder) submitted a licence amendment application, which was received by DWER on 6 November 2018.

The Licence Holder has requested that condition 1.2.3 of the Existing Licence is amended to allow the sale of compost which meets pathogen grade P3 to P1 and contaminant grade C2 and C1 (within the *Western Australian Guidelines for Biosolids Management 2012*) as shown in Figure 1.

Condition 1.2.3 of the Existing Licence states for the following:

Ensure that, as a minimum, compost sold commercially for export off-site meets physical and chemical requirements set out by AS4454 and meets P1C1 within the document Western Australian Guidelines for Biosolids Management (Department of Environment and Conservation 2012).

The Licence Holder has advised that they have been unable to meet the C1 contaminant grading (within the *Western Australian Guidelines for Biosolids Management (2012)*) for the compost produced within the Premises since the licence was amended in July 2016 to allow the composting activity. The compost produced has been stockpiled on the Premises.

The Licence Holder has advised that concentrations of arsenic and chromium within green waste feedstock are causing the final composted product to exceed the C1 grading and the unrestricted use upper limits within *Australian Standard AS 4454 Compost, soil conditioners and mulches* (AS 4454).

The C1 and C2 grading both have a concentration thresholds for Chromium (VI) of 1 mg/kg, and do not specify a threshold for arsenic. The AS 4454 unrestricted use upper limits for chromium and arsenic are 100mg/kg and 20mg/kg respectively.

Evidence of testing of the green waste feedstock use at the Premises in November 2017 (provided as supporting documentation) shows that the green waste (barkwaste) contained chromium at a concentration of 39mg/kg and arsenic at a concentration of 20mg/kg. However, the green waste and compost product testing results do not differentiate between different forms of chromium.

The compost product testing results (provided as supporting information) shows that the compost sampled in February 2018 contained chromium at a concentration of 104 mg/kg and arsenic at a concentration of 48.5 mg/kg.

Biosolids end use	Pathogen grade	Contaminant grade*
Unrestricted use ⁷		
Unrestricted use	P1	C1
Restricted use		
Agricultural direct land application (crops that may be consumed raw and in contact with biosolids)	P1	C2
Urban landscaping* (not household use)	P2	C2
Horticulture*	P2	C2
Agricultural direct land application (crops that may be consumed raw but not in contact with biosolids) ⁸	P2	C2
Agricultural direct land application (pasture and crops that are processed before being consumed, but not root crops) ⁹	P3	C2
Forestry direct land application	P3	C2
Rehabilitation (for example, mine sites, contaminated or degraded sites, within the wastewater treatment plant boundary)	P3	C2

Figure 1: Excerpt from Table 6 in the *Western Australian Guidelines for Biosolids Management* (Department of Environment and Conservation 2012).

Other approvals

Correspondence between the Department of Health (DoH) and the Licence Holder in September 2018 has been provided, indicating that DoH will not issue an approval for the retail sale of the compost to the public, as it doesn't achieve the P1C1 grading for unrestricted use.

Amendment history

Table 2 provides the amendment history for L7827/2001/5 since 2015.

Table 2: Licence amendments

Instrument	Issued	Amendment
L7827/2001/5	16/12/2015	DER initiated Amendment to extend expiry date of Licence L7827/2001/5 to 19 January 2017.
L7827/2001/5	29/04/2016	DER initiated Amendment Notice to extend expiry date of Licence L7827/2001/5 to 19 January 2020.
L7827/2001/5	14/07/2016	Licence Holder initiated Amendment to add Category 67A (Compost manufacturing and soil blending) prescribed activities and associated regulatory controls approved through works approval W5905/2015/1.

Instrument	Issued	Amendment
L7827/2001/5 Amendment Notice 1	24/11/2016	DER initiated Amendment Notice to: <ul style="list-style-type: none"> • Amend relevant definitions within Condition 1.1.2; • Amend Condition 1.2.3 with regards to controls of waste storage, process limitations and administrative errors. • Amend Condition 1.2.4 with regards to freeboard levels and administrative errors. • Add Condition 1.2.10 with regards to minimum machinery requirements to assist in the control of fugitive emission while compost manufacturing and soil blending activities are being undertaken. • Amend condition 3.2.1 with regards to the frequency of monitoring requirements.
L7827/2001/5 Amendment Notice 2	6/02/2019	Licensee initiated amendment to amend Condition 1.2.3 to allow the sale of compost which does not meet physical and chemical requirements set out by AS4454 and meets P1C1 (within the document Western Australian Guidelines for Biosolids Management).

Risk assessment

Table 3 below describes the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. The table identifies whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Table 3: 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 67A compost manufacturing and soil blending	Compost product removed from the Premises	Pathogens within product	General public – including end users	Human contact with compost	Health impacts from inhaled or ingested pathogens	Severe	Rare	High	<p>The Delegated Officer has determined that pathogens within the compost product could cause high level adverse health effects (severe consequence).</p> <p>Provided that the product is produced (onsite) and sold for the appropriate end use based on the product's pathogen grade, the Delegated Officer has determined that pathogens in the compost product causing high level adverse health effects for product users may only occur in exceptional circumstances (rare likelihood).</p>
		Contaminants within product	<p>Ecological receptors – including terrestrial and aquatic ecosystems; and</p> <p>General public – including end users</p>	<p>Directly applied to land</p> <p>Human contact with compost</p>	<p>Contamination of ecosystems</p> <p>Health impacts from inhaled or ingested contaminants</p>	Moderate	Unlikely	Medium	<p>Based upon the inputs to the composting process and the degree to which some contaminants remain within the product, and the potential scale of use of the compost product, the Delegated Officer has determined that contaminants within the compost product could cause low level off-site impacts at a local scale, or low level adverse health effects (moderate consequence).</p> <p>Provided that the product is produced (onsite) and sold for the appropriate end use based on the product's contaminant grade, the Delegated Officer has determined that contaminants in the compost product causing low level off-site impacts at a local scale or low level adverse health effects will probably not occur in most circumstances (unlikely).</p>

Decision

The Delegated Officer notes that under the Existing Licence, pasteurisation of the compost produced on the Premises is required by condition 1.2.3 and that compost quality monitoring in accordance with AS 4454 is required under condition 3.4.1.

The compost product testing results for the compost sampled in February 2018 indicate that the pathogen threshold levels for P1 grading and AS 4454 were met.

The Delegated Officer notes that the contaminant grading within the *Western Australian Guidelines for Biosolids Management* (2012) does not consider a range of contaminants specific to compost (as opposed to biosolids).

Considering that the compost produced within the Premises may be suitable for a range of end uses depending on the product quality and the specific circumstances of the use, the Delegated Officer has determined that the Licence will be amended to:

- Remove the requirement that compost sold commercially for export off-site must meet physical and chemical requirements set out by AS 4454 and P1C1 grading within the document *Western Australian Guidelines for Biosolids Management* (Department of Environment and Conservation 2012);
- Make a minor change to condition 3.4.1 (compost quality monitoring) to clarify the wording regarding compost product testing;
- Include an additional condition which requires the Licence Holder to ensure that testing of all compost product is undertaken in accordance with AS 4454;
- Include an additional condition which requires the Licence Holder to classify the compost products produced on the premises according to the product specification and end use(s) as determined by the physical and chemical quality specifications required by AS 4454 and the document *Western Australia Guidelines for Biosolids Management* (Department of Environment and Conservation 2012) prior to sale or distribution to customers; and
- Include an additional condition which requires the Licence Holder to:
 - implement and maintain a system for recording:
 - the compost quality testing results for all compost products produced; and
 - the resulting product classification determination made for each load or batch of compost product sold or distributed from the Premises; and
 - ensure that these records are made available to the CEO or customers on request.

Considering the Department's 2018 document *Factsheet - assessing whether material is waste*, the Delegated Officer notes that where the application of compost to land occurs and that compost may be considered a waste, a Category 61A: Solid waste facility prescribed activity may occur and the activity may be subject to Sections 52, 53 and 56 of the EP Act.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 30 January 2019. The Licence Holder did not provide any comments and waived the remaining comment period on 6 February 2019.

Amendment

1. Condition 1.2.3 of the Licence is amended by the deletion of the red text shown in strikethrough below and insertion of the red text shown in underline below:

1.2.3 *The Licensee shall ensure that wastes accepted onto the Premises are only subjected to the processes set out in Table 1.2.2 and in accordance with any process limits described in Table 1.2.2.*

Table 1.2.2: Waste processing		
Waste type	Process	Process limits
<i>Liquid waste – all types specified in Table 1.2.1</i>	<i>Receipt, handling, storage and treatment prior to discharge to irrigation</i>	<i>Treatment of all liquid waste shall be at or below the treatment capacity of 20,000 tonnes per annual period.</i>
<i>Composting material which includes a mixture of sludge/ greenwaste (feedstock)</i>	<i>Receipt, handling and storage prior to composting</i>	<ul style="list-style-type: none"> Waste shall not be stored for longer than 7 days before being added to the composting process. Waste shall not be stored within 20 metres of the Premises boundary.
	<i>Treatment by composting and pasteurisation</i>	<ul style="list-style-type: none"> Windrows shall be turned regularly to ensure aerobic conditions are maintained. The core temperature of the composting pile is maintained between 55 °C and 65 °C for a period of at least 15 days. Moisture level in the composting piles shall be maintained between 40 to 65 per cent. Windrows shall not exceed 3 metres high, and 3 metres wide. Windrows shall be separated by at least 5 metres of clear ground. Composting leachate is collected and returned to the composting process. Ensure that, as a minimum, compost sold commercially for export of site meets physical and chemical requirements set out by AS4454 and meets P1C1 within the document Western Australia Guidelines for Biosolids Management (Department of Environment and Conservation 2012). Shall produce no more than 7500 tonnes per annual period of compost. Liquid wastes (other than composting leachate) are not permitted to be composted. Only sludges generated from the liquid waste facility at the Premises may be used for composting
<i>Greenwaste only</i>	<i>Receipt, handling, storage prior to composting</i>	<ul style="list-style-type: none"> Temperatures within windrows are monitored on a weekly basis; Stockpiles with an internal temperature exceeding 80 degrees Celsius are turned, mixed or otherwise treated until the temperature is reduced below 80 degrees Celsius; and

Table 1.2.2: Waste processing		
Waste type	Process	Process limits
		<ul style="list-style-type: none"> A 10 metre fire break shall be maintained around greenwaste stockpiles. The shredding or grinding of greenwaste shall not be undertaken at the Premises.

2. Condition 3.4.1 of the Licence is amended by the insertion of the red text shown in underline below:

3.4.1 The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table.

Table 3.4.1: Process monitoring					
Monitoring point reference	Process description	Parameter	Units	Frequency	Method
Compost windrows	Composting	Temperature	°C	Weekly	None specified
		Moisture content	%	Weekly	None specified
		Compost quality <u>product testing</u>	None specified	<u>As per sampling procedure</u> required in AS 4454	Sampling and testing in accordance with AS 4454

3. The Licence is amended by the insertion of the following Conditions 3.4.2 and 3.4.3:

3.4.2 The Licensee must ensure that the testing of all compost product is undertaken in accordance with AS 4454.

3.4.3 The Licensee must ensure that products are classified according to the product specification and end use(s) as determined by the physical and chemical quality specifications required by AS 4454 and the document Western Australia Guidelines for Biosolids Management (Department of Environment and Conservation 2012) prior to sale or distribution to customers.

4. The Licence is amended by insertion of the following Conditions 4.1.4 (b) and 4.1.4 (c):

4.1.4 The Licensee shall:

(a) implement and maintain a system which ensures that a record is made of:

- (i) the waste type, quantity and date of arrival or each load accepted at the Premises;
- (ii) the waste type, quantity, date of removal and destination (recycled material/recycling site/landfill etc.) of each load removed from the site; and
- (iii) rejected loads including details of the waste producer, waste carrier, registration number of the vehicle and the date and reason for rejection;

(b) implement and maintain a system which ensures that a record is made of:

- (i) the compost quality product testing results for all compost products required by Condition 3.4.1; and

(ii) the resulting product classification determination made, in accordance with Condition 3.4.3, for each load or batch of compost product sold or distributed from the premises.

(c) ensure that records required by 4.1.4 (b) are made available to the CEO or customers on request.

Appendix 1: Key documents

	Document title	Availability
1	Department of Environment and Conservation, 2012. <i>Western Australian Guidelines for Biosolids Management</i> .	Accessed at https://www.der.wa.gov.au/images/documents/our-services/approvals-and-licences/western-australian-guidelines-for-biosolids-management-dec-2012.pdf
2	Standards Australia, 2012. <i>Australian Standard AS 4454-2012 Compost, soil conditioners and mulches</i> .	Purchased at https://infostore.saiglobal.com/en-au/standards/as-4454-2012-121773_SAIG_AS_AS_267608/
3	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	Accessed at www.dwer.wa.gov.au
4	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	
5	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	
6	DER, November 2016. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	