



Licence

Environmental Protection Act 1986, Part V

Licensee: JD Organics Pty Ltd

Licence: L8887/2015/1

Registered office: C/O Nell & Associates
Suite 5
56 Creaney Drive
KINGSLEY WA 6026

ACN: 154 081 651

Premises address: Garden Organics
276 Aurisch Road
BOONANARRING WA 6503
Being Lot 12 on Diagram 92147

Issue date: Thursday, 13 August 2015

Commencement date: Monday, 17 August 2015

Expiry date: Thursday, 16 August 2018

Prescribed premises category
Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
67A	Compost Manufacturing and Soil Blending: premises on which organic material (excluding silage) or waste is stored pending processing, mixing, drying or composting to produce commercial quantities of compost or blended solids	1 000 tonnes or more per year	22,000 tonnes per annual period

Conditions

This Licence is subject to the conditions set out in the attached pages.

.....
Rebecca Kelly
Officer delegated under section 20
of the *Environmental Protection Act 1986*



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Introduction

This Introduction is not part of the Licence conditions.

DER's industry licensing role

The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the Licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the Licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link: <http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your Licence. Non-compliance with your Licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.



Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non-payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

Premises description and Licence summary

JD Organics Pty Ltd (JD Organics) trading as Garden Organics is a family owned business involved in the compost and soil blending industry. The Premises is located within the Shire of Gingin in an area zoned Rural and has valid planning approval. The Premises is approximately 260 hectares in area with proposed composting operations to occur within a small area in the centre of the Premises.

The nearest residence is located immediately adjacent to the north-eastern boundary of the Premises; however it is located approximately 900m from the footprint of the composting facility. Other nearby residences are located 850m west of the Premises (approximately 2.5km from proposed composting operations) and others are located approximately 4 to 5km to the south and south-east.

Several unnamed lakes are located 730m south and 1.8 to 2.6km west of the Premises boundary. White Lake and Beermullah Lakes are located approximately 775m west and 2.3km north-west from the Premises boundary. These lakes are all subject to the Environmental Protection Swan Coastal Plain Lakes Policy 1992 (the Policy). The Premises is located within an area subject to the Policy, however the conditions of this policy are not applicable to site activities.

The superficial aquifer is approximately 20m below the premises with inferred groundwater flow from east to west. The Leederville aquifer is located approximately 60m below the premises and flows towards the south-west.

A works approval (W4653/2010/1) was issued to JD Organics in May 2010 to construct a composting facility at Lot 12 Aurisch Road in Boonanarring (the Premises). It included construction of the following:

- HDPE lined leachate pond;
- Limestone hardstand;
- Concrete mixing pad;
- Installation of groundwater monitoring bores;
- Composting shed with lined concrete leachate sump and floor aeration;
- Bagging shed;
- Lined drainage sump;
- Leachate dam aeration system; and
- Water piping around stockpiles.

A lined leachate pond, compacted limestone hardstand, bagging shed and composting shed were constructed under the works approval. Due to unforeseen circumstances and changes to the original application, the works approval expired in May 2014 without all of the works being completed.

The occupier was granted a new works approval on 12 June 2105 to finalise outstanding works at the Premises. The works approval consisted of two stages as outlined below.

Stage 1 consists of the following works:

- Sealing of limestone hardstand with asphalt;
- Construction of concrete bunds around hardstand;
- Construction of concrete bund around limestone wall between hardstand and leachate pond; and
- Installation of two groundwater monitoring bores.



Stage 2 works include:

- Concrete lined sump for composting shed leachate collection;
- Aeration motor and fan for below ground aeration in composting shed;
- Concrete tilt panels surrounding internal walls of composting shed; and
- Watering system within composting shed.

The occupier proposes to produce up to 27,000 tonnes per year (combined Stage 1 and 2 operations) of blended soils and compost to the Australian Standards AS 3743 (potting mixes); AS 4454 (composts, mulches, soil conditioners) and AS 4419 (soils for landscaping and garden use).

Feedstock received at the premises is initially placed onto the mixing pad where it is mixed with different waste/feedstock as required for the final product. The mixed feedstock is then transferred into windrows to undergo pasteurisation. Leachate or fresh water will be used for moisture content during pasteurisation (approximately 4 weeks).

After pasteurisation, the windrows undergo composting and are turned once a week during the composting process to maintain aerobic conditions for biological activity. Fresh water is used in the process to retain moisture content. After the two weeks of composting, the windrows will undergo two weeks of maturation prior to being moved into the bagging plant or moved to the mixing pad to be blended with additional products. Once the blended products have been finalised, the product will then be transferred into the bagging plant. Bagged products will then be removed offsite for sale.

This Licence is for the operation of a new facility established under works approval W5836/2015/1. Stage 1 operations involve the processing of green wastes and other various organic wastes (olive wastes, pine bark, sawdust, and blended soils) in windrows on the outside hardstand to produce up to 22,000 tonnes of product each year. This application is for the operation of Stage 1 works only. A compliance document was received by DER on 31/07/2015 which documents the occupier's compliance for Stage 1 works as specified under the works approval. No liquid wastes will be accepted at the premises.

Stage 2 operations include composting of manures within the compost shed and will produce up to 5,000 tonnes of compost annually. These activities are not authorised under this licence. A licence amendment application will be submitted to include Stage 2 operations onto the licence following DER receiving the compliance certificate for the completion of Stage 2 works.

The works approvals issued for the Premises since 20/05/2010 are:

Instrument log		
Instrument	Issued	Description
W4653/2010/1	20/05/2010	New application
W4653/2010/1	12/01/2012	Transfer of occupier
W4653/2010/1	15/05/2013	Works approval amendment to extend expiry date
W5836/2015/1	12/06/2015	New works approval following expiry of W4653/2010/1
L8887/2015/1	13/08/2015	New licence for Stage 1 operations following completion of Stage 1 works under W5836/2015/1

Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

END OF INTRODUCTION



Licence conditions

1 General

1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

‘**Act**’ means the *Environmental Protection Act 1986*;

‘**AHD**’ means the Australian height datum;

‘**annual period**’ means the inclusive period from 1 July until 30 June in the following year;

‘**ARI**’ means Average Recurrence Interval;

‘**AS 4454**’ means Australian Standard AS 4454 *Composts, soil conditioners and mulches*;

‘**AS/NZS 5667.1**’ means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*;

‘**AS/NZS 5667.11**’ means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters*;

‘**averaging period**’ means the time over which a limit is measured or a monitoring result is obtained;

‘**CEO**’ means Chief Executive Officer of the Department of Environment Regulation;

‘**CEO**’ for the purpose of correspondence means;

Senior Manager
Industry Regulation (Waste Industries)
Department of Environment Regulation
Locked Bag 33
CLOISTERS SQUARE WA 6850
Telephone: (08) 9333 7510
Facsimile: (08) 9333 7550
Email: industry.regulation@der.wa.gov.au;

‘**compost**’ means an organic product that has undergone controlled aerobic and thermophilic biological transformation through the composting process;

‘**composting**’ the process whereby organic materials are microbiologically transformed under controlled aerobic conditions.

‘**controlled waste**’ has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

‘**environmentally hazardous material**’ means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;



'feedstock' means the organic material used in the composting process and listed in Table 1.3.1;

'green waste' means waste that originates from untreated trees or plants;

'hardstand' means a surface with a permeability of 10^{-9} metres/second or less;

'leachate' means liquid released by or water that has percolated through waste and which contains some of its constituents;

'Licence' means this Licence numbered L8887/2015/1 and issued under the Act;

'Licensee' means the person or organisation named as Licensee on page 1 of the Licence;

'manure' means any organic product composed mainly of animal excreta;

'NATA' means the National Association of Testing Authorities, Australia;

'NATA accredited' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

'pasteurisation' means the process whereby organic materials are treated to significantly reduce the numbers of plant and animal pathogens and plant propagules;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'quarterly' means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December the same year;

'Schedule 1' means Schedule 1 of this Licence unless otherwise stated;

'Schedule 2' means Schedule 2 of this Licence unless otherwise stated;

'spot sample' means a discrete sample representative at the time and place at which the sample is taken;

'usual working day' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia;

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.

1.1.4 Any reference to a guideline or code of practice in the Licence means the current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

1.1.5 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:

- (a) pollution;
- (b) unreasonable emission;
- (c) discharge of waste in circumstances likely to cause pollution; or
- (d) being contrary to any written law.

1.2 General conditions

1.2.1 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.



1.2.2 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.2.3 The Licensee shall:

- (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
- (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.¹

Note1: The *Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.

1.3 Premises operation

1.3.1 The Licensee shall only accept waste 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 quantity 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	Quantity limit tonnes/ annual period	Specification ¹
Jarrah sawdust	6,000	None specified
Green waste	6,000	
Olive waste	3,000	
Pine bark	2,000	
Blended compost and soil	2,000	Sourced from T.J. Depiazzi & Sons
Compost soil conditioner	3,000	Sourced from C-Wise

Note 1: Additional requirements for the acceptance of controlled waste (including animal effluent or residues; and vegetable and food processing waste) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.3.2 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in condition 1.3.1 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a segregated storage area or container and removed to an appropriately authorised facility as soon as practicable.

1.3.3 The Licensee shall ensure that wastes accepted onto the Premises are only subjected to the process[es] set out in Table 1.3.2 and in accordance with any process limits described in that Table.

Table 1.3.2: Processing of materials

Waste type	Process	Process requirements
As detailed in Table 1.3.1	Receipt, handling and storage prior to composting	<ul style="list-style-type: none"> i) Waste types (excluding olive waste) shall not be stored for longer than 21 days before being added to the composting process. ii) Olive waste shall not be stored for more than 48 hours before being added to the composting process. iii) Waste shall not be stored within 200 metres of the Premises boundary.
	Treatment by composting and pasteurisation	<ul style="list-style-type: none"> i) Windrows shall be turned regularly to ensure aerobic conditions are maintained. ii) The core temperature of the composting pile is maintained between 55 °C and 65 °C for a period of at least three days. iii) Moisture level in the composting piles shall be maintained between 40 to 65 per cent. iv) Windrows shall not exceed 2.5 metres high, 5 metres wide and 25 metres long.



Table 1.3.2: Processing of materials		
Waste type	Process	Process requirements
		v) Windrows shall be separated by at least 5 metres of clear ground. vi) Composting leachate is collected and directed to the leachate pond or returned to the composting process during the pasteurisation process. vii) Ensure that, as a minimum, compost meets physical and chemical requirements set out by AS4454.

1.3.4 The Licensee shall ensure that waste is stored and/or contained within infrastructure in accordance with Table 1.3.3 and that the integrity of the containment infrastructure is maintained.

Table 1.3.3: Containment infrastructure		
Containment area/infrastructure	Material	Infrastructure requirements
Waste storage area	Waste types as detailed in Table 1.3.1 (feedstock)	Bunded hardstand area
Mixing area		
Composting area		
Leachate pond	Contaminated stormwater and leachate	i) Lined to achieve a permeability of less than 10^{-9} m/s or equivalent; ii) A minimum top of embankment freeboard of 1,200 mm is maintained iii) Capacity to store a 24 hour duration, 1 in 100 year ARI critical rainfall event without overflow.
Drainage channel	Contaminated stormwater and leachate	Lined to achieve a permeability of at least $<10^{-9}$ m/s or equivalent

2 Monitoring

2.1 General monitoring

2.1.1 The licensee shall ensure that:

- (a) all compost samples are collected and preserved in accordance with AS 4454;
- (b) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
- (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.

2.1.2 The Licensee shall ensure that quarterly monitoring is undertaken at least 45 days apart.

2.1.3 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications.

2.1.4 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.



2.2 Monitoring of inputs and outputs

2.2.1 The Licensee shall undertake the monitoring in Table 2.2.1 according to the specifications in that table.

Table 2.2.1: Monitoring of inputs and outputs				
Input/Output	Parameter	Units	Averaging period	Frequency
Mass of each input listed in Table 1.3.1	Waste type as detailed in Table 1.3.1	Tonnes	One year	Each load arriving at the Premises
Mass of each product or waste output listed in Table 1.3.1	Waste type as detailed in Table 1.3.1 and finished products			

2.3 Process monitoring

2.3.1 The Licensee shall undertake the monitoring in Table 2.3.1 according to the specifications in that table.

Table 2.3.1: 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	None specified	As required in AS 4454	Sampling and testing in accordance with AS 4454

2.4 Ambient environmental quality monitoring

2.4.1 The Licensee shall undertake the monitoring in Table 2.4.1 according to the specifications in that table and record and investigate results that do not meet any target specified.

Table 2.4.1: Monitoring of ambient groundwater quality				
Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
Bores 1 – 5	Standing water level	m(AH D)	Spot sample	Quarterly
	pH			
	Electrical conductivity	µS/cm		
	Colour (Gilvin)	Gilvin ₄₀ /m		
	Biochemical oxygen demand	mg/L		
	Total phosphorus			
	Total nitrogen			
Ammonia nitrogen				



Table 2.4.1: Monitoring of ambient groundwater quality				
Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
Bores 1 – 5	Nitrate + nitrite nitrogen	mg/L	Spot sample	Quarterly
	Aluminium			
	Arsenic			
	Cadmium			
	Chromium			
	Copper			
	Lead			
	Mercury			
	Nickel			
	Zinc			

3 Information

3.1 Records

3.1.1 All information and records required by the Licence shall:

- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 3.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.

3.1.2 The Licensee shall ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

3.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

3.1.4 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

3.2 Reporting

3.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 32 calendar days after the end of the annual period. The report shall contain the information listed in Table 3.2.1 in the format or form specified in that table.



Table 3.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form ¹
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
Table 2.2.1	Inputs and outputs	None specified
Table 2.3.1	Process monitoring	None specified
Table 2.4.1	Groundwater monitoring	GR1
3.1.3	Compliance	Annual Audit Compliance Report (AACR)
3.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

3.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:
(a) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets.

3.2.3 The Licensee shall submit the information in Table 3.2.2 to the CEO according to the specifications in that table.

Table 3.2.2: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form ¹
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEO's request	As received by the Licensee from third parties

Note 1: Forms are in Schedule 2

3.3 Notification

3.3.1 The Licensee shall ensure that the parameters listed in Table 3.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 3.3.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
-	Fire at the premises	As soon as practicable	None specified
-	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
2.1.4	Calibration report	As soon as practicable.	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

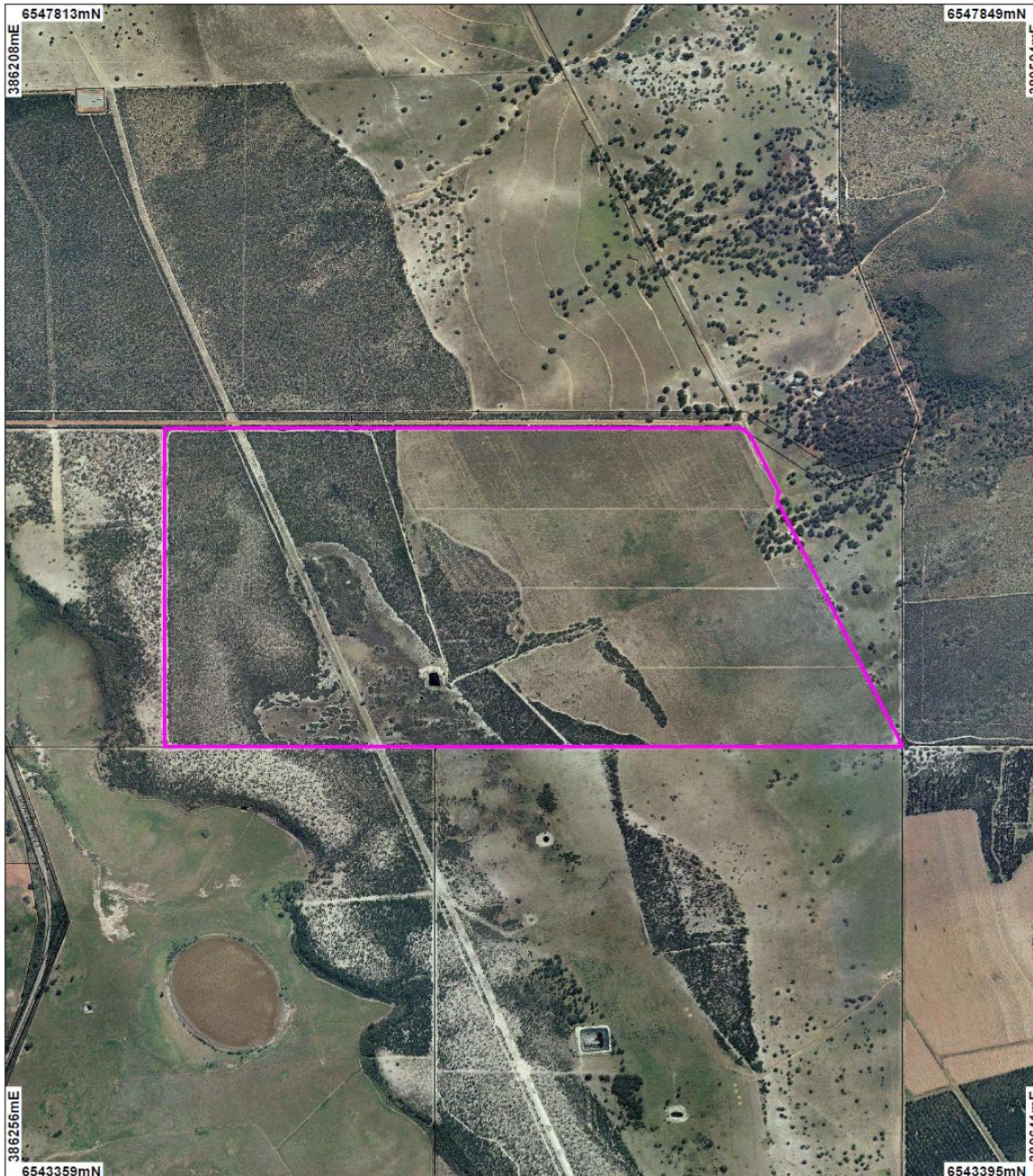
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

The Premises is shown in the maps below. The pink line depicts the Premises boundary.





Premises overview including emission points

The locations of the emission points defined in Table 2.4.1 is shown below:





Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

SECTION A LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)

Yes Please proceed to Section C

No Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



SECTION B

DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with:	
b) Date(s) when the non-compliance occurred, if applicable:	
c) Was this non-compliance reported to DER?:	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DER verbally Date _____ <input type="checkbox"/> Reported to DER in writing Date _____	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non-compliance?:	
e) Summary of particulars of the non-compliance, and what was the environmental impact:	
f) If relevant, the precise location where the non-compliance occurred (attach map or diagram):	
g) Cause of non-compliance:	
h) Action taken, or that will be taken to mitigate any adverse effects of the non-compliance:	
i) Action taken or that will be taken to prevent recurrence of the non-compliance:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	<input type="checkbox"/> <input type="checkbox"/>	by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer of the licensee; or by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

SIGNATURE: _____

NAME:
(printed) _____

NAME:
(printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)



Licence: L8887/2015/1
Form: GR1
Name: Monitoring of ambient emissions to groundwater

Licensee: JD Organics Pty Ltd
Period :

Form LR1: Monitoring of emissions to land

Emission point	Parameter	Result ¹	Averaging period	Method	Sample date & times
Bores 1 - 5	Standing water level	m(AHD)	Spot sample		
Bores 1 – 5	pH		Spot sample		
Bores 1 – 5	Electrical conductivity	µS/cm	Spot sample		
Bores 1 – 5	Colour (gilvin)	Gilvin ₄₄₀ /m	Spot sample		
Bores 1 – 5	Biochemical oxygen demand	mg/L	Spot sample		
Bores 1 – 5	Total phosphorus	mg/L	Spot sample		
Bores 1 – 5	Total nitrogen	mg/L	Spot sample		
Bores 1 – 5	Ammonia nitrogen	mg/L	Spot sample		
Bores 1 – 5	Nitrate + nitrite nitrogen	mg/L	Spot sample		
Bores 1 – 5	Aluminium	mg/L	Spot sample		
Bores 1 – 5	Arsenic	mg/L	Spot sample		
Bores 1 – 5	Cadmium	mg/L	Spot sample		
Bores 1 – 5	Chromium	mg/L	Spot sample		
Bores 1 – 5	Copper	mg/L	Spot sample		
Bores 1 – 5	Lead	mg/L	Spot sample		
Bores 1 – 5	Mercury	mg/L	Spot sample		
Bores 1 – 5	Nickel	mg/L	Spot sample		
Bores 1 – 5	Zinc	mg/L	Spot sample		

Note 1: All units are referenced to STP dry

Signed on behalf of JD Organics Pty Ltd: Date:



Licence: L8887/2015/1
 Form: N1

Licensee: JD Organics Pty Ltd
 Date of breach:

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

These pages outline the information that the operator must provide.
 Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	



Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of JD Organics Pty Ltd	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: JD Organics Pty Ltd

Licence: L8887/2015/1

Registered office: C/O Nell & Associates
Suite 5
56 Creaney Drive
KINGSLEY WA 6026

ACN: 154 081 651

Premises address: Garden Organics
276 Aurisch Road
BOONANARRING WA 6503
Being Lot 12 on Diagram 92147

Issue date: Thursday, 13 August 2015

Commencement date: Monday, 17 August 2015

Expiry date: Thursday, 16 August 2018

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER) has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by: Lauren Fox
Licensing Officer

Decision Document authorised by: Rebecca Kelly
Manager Licensing



Contents

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1 Purpose of this Document	2
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1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/>	New Licence <input checked="" type="checkbox"/>
	Licence amendment <input type="checkbox"/>	Works Approval amendment <input type="checkbox"/>
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	67A	22,000 tonnes per year
Application verified	Date: 4/05/2015	
Application fee paid	Date: 14/05/2015	
Works Approval has been complied with	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> For Stage 1 works only	
Compliance Certificate received	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome	N/A	
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Department of Water consulted Yes <input type="checkbox"/> No <input type="checkbox"/>
Is the Premises within an Environmental Protection Policy (EPP) Area Environmental Protection Swan Coastal Plain Lakes Policy 1992	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	



3 Executive summary of proposal and assessment

JD Organics Pty Ltd (JD Organics) trading as Garden Organics is a family owned business involved in the compost and soil blending industry. The Premises is located within the Shire of Gingin in an area zoned Rural and has valid planning approval. The Premises is approximately 260 hectares in area with proposed composting operations to occur within a small area in the centre of the Premises.

The nearest residence is located immediately adjacent to the north-eastern boundary of the Premises; however it is located approximately 900m from the footprint of the composting facility. Other nearby residences are located 850m west of the Premises (approximately 2.5km from proposed composting operations) and others are located approximately 4 to 5km to the south and south-east.

Several unnamed lakes are located 730m south and 1.8 to 2.6km west of the Premises boundary. White Lake and Beermullah Lakes are located approximately 775m west and 2.3km north-west from the Premises boundary. These lakes are all subject to the Environmental Protection Swan Coastal Plain Lakes Policy 1992 (the Policy). The Premises is located within an area subject to the Policy, however the conditions of this policy are not applicable to site activities.

The superficial aquifer is approximately 20m below the premises, with inferred groundwater flow from east to west. The Leederville aquifer is located approximately 60m below the premises and flows towards the south-west.

A works approval (W4653/2010/1) was issued to JD Organics in May 2010 to construct a composting facility at Lot 12 Aurisch Road in Boonanarring (the Premises). It included construction of the following:

- HDPE lined leachate pond;
- Limestone hardstand;
- Concrete mixing pad;
- Installation of groundwater monitoring bores;
- Composting shed with lined concrete leachate sump and floor aeration;
- Bagging shed;
- Lined drainage sump;
- Leachate dam aeration system; and
- Water piping around stockpiles.

A lined leachate pond, compacted limestone hardstand, bagging shed and composting shed were constructed under the works approval. Due to unforeseen circumstances and changes to the original application, the works approval expired in May 2014 without all of the works being completed.

The occupier was granted a new works approval on 11 June 2015 to finalise outstanding works at the Premises. The works approval consisted of two stages as outlined below.

Stage 1 consisted of the following works:

- Sealing of limestone hardstand with asphalt;
- Construction of concrete bunds around hardstand;
- Construction of concrete bund around limestone wall between hardstand and leachate pond; and
- Installation of two groundwater monitoring bores.



Stage 2 works include:

- Concrete lined sump for composting shed leachate collection;
- Aeration motor and fan for below ground aeration in composting shed;
- Concrete tilt panels surrounding internal walls of composting shed; and
- Watering system within composting shed.

The occupier proposes to produce up to 27,000 tonnes per year (combined Stage 1 and 2 operations) of blended soils and compost to the Australian Standards AS 3743 (potting mixes); AS 4454 (composts, mulches, soil conditioners) and AS 4419 (soils for landscaping and garden use).

Feedstock received at the premises is initially placed onto the mixing pad where it is mixed with different waste/feedstock as required for the final product. The mixed feedstock is then transferred into windrows to undergo pasteurisation. Leachate or fresh water will be used for moisture content during pasteurisation (approximately 4 weeks).

After pasteurisation, the windrows undergo composting and are turned once a week during the composting process to maintain aerobic conditions for biological activity. Fresh water is used in the process to retain moisture content. After two weeks of composting, the windrows will undergo two weeks of maturation prior to being moved into the bagging plant or moved to the mixing pad to be blended with additional products. Once the blended products have been finalised, the product will then be transferred into the bagging plant. Bagged products will then be removed offsite for sale.

This Licence is for the operation of a new facility established under works approval W5836/2015/1. Stage 1 operations involve the processing of green wastes and other various organic wastes (olive wastes, pine bark, sawdust, and blended soils) in windrows on the outside hardstand to produce up to 22,000 tonnes of product each year. This application is for the operation of Stage 1 works only with an annual throughput of 22,000 tonnes. A compliance document was received by DER on 31/07/2015 which documents the occupier's compliance for Stage 1 works as specified under the works approval. No liquid wastes will be accepted at the premises.

Planned Stage 2 operations are to include composting of manures within the compost shed and will produce up to 5,000 tonnes of compost annually. These activities are not authorised under this licence. A licence amendment application will be submitted to include Stage 2 operations onto the licence following DER receiving the compliance certificate for the completion of Stage 2 works.



4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DEC's Policy Statement - Limits and targets for prescribed premises (2006), and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L.1.2.1 – L1.2.3	<p>The occupier has various pollution control and monitoring equipment in use at the premises. Condition 1.2.1 has been included on the licence to require the occupier to maintain all pollution control and monitoring equipment in accordance with the manufacturer's specifications which assists in ensuring greater certainty and reliability in monitoring results.</p> <p>With any industrial premises, there is a potential for spills of cleaning agents, fuels and other chemicals to occur. Condition 1.2.2 has been included to require that any spills of environmentally hazardous materials outside of storage containment systems, are managed appropriately.</p> <p><u>Emission Description</u> <i>Emission:</i> Stormwater contaminated with leachate from composting. <i>Impact:</i> Contamination of surrounding land. Potential impacts on ecology of surface water and groundwater from the addition of nutrients. <i>Controls:</i> Stormwater from part of the bagging shed's landing is captured and directed to a tank for use in cleaning. Stormwater that comes off the remaining part of Shed 1 and all of Shed 2 discharges directly to the ground. Soil drainage channels have been constructed around the premises to direct stormwater away from the hardstand area (where possible). Stormwater that has come in contact with the hardstand area, storage bins and mixing areas is treated as contaminated stormwater which is directed from the storage buns to the hardstand or mixing area and then to the leachate pond, either via gravity from the hardstand slope or by pipe from the mixing area.</p>	Application supporting documentation



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions continued		<p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Condition 1.2.3 has been added to the licence to require the operator to implement surface water management measures to prevent stormwater becoming contaminated and to treat contaminated or potentially contaminated water as needed, prior to discharge from the premises.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Rare <i>Risk Rating:</i> Moderate</p>	
Premises operation	L1.3.1 – L1.3.4	<p><u>Emission Description</u> <i>Emission:</i> Generation of leachate from composting activities. <i>Impact:</i> Contamination of surrounding land. Potential impacts on ecology of surface water and groundwater from the addition of nutrients with potential for offsite migration. <i>Controls:</i> Composting is undertaken on a 5,000m² hardstand of 300mm compacted limestone which has been sealed with 10mm granite scatter, bitumen primer and seal coat, overlaid by a 40mm asphalt layer (composed of 14mm granite material). The hardstand is also bunded with concrete to prevent leachate runoff and is graded on a slope towards the leachate pond which is lined with 1.5mm HDPE and has a capacity of 1,800m². The occupier has committed to maintaining a 1.2m freeboard so that the pond can adequately contain a 1 in 100 year storm event over 24 hours.</p>	Draft <i>Environmental Standard: composting</i> , June 2015, published by the Department of Environment Regulation



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises operation continued		<p>A reinforced concrete drainage sump has been constructed at the end of the hardstand to capture any sediment in the runoff prior to the runoff from the hardstand entering the leachate pond.</p> <p>It is noted that the current hardstand does not meet the infrastructure requirements as specified in the draft <i>Environmental Standard: composting</i>, June 2015 (Environmental Standard) however at the time that the works approval was assessed and approved, this Environmental Standard has not been published. An improvement condition (3.1.1) has been included to require the occupier to undertake a risk assessment of current operations and infrastructure at the premises against the Environmental Standard and where it is identified (through the risk assessment) that upgrades are required, to provide a timeframe to complete the upgrades.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Condition 1.3.1 has been included on the licence to limit the types and quantities of waste to be accepted at the premises to wastes that have been assessed by DER and can be adequately managed under the occupier's infrastructure and process controls.</p> <p>Condition 1.3.2 requires the occupier to remove any waste to an appropriately licensed facility if it does not meet the requirements of condition 1.3.1, as any additional wastes have not been authorised or considered in DER's assessment of premises controls and this conditions mitigates the potential leachate risk of runoff from stockpiling non-confirming waste.</p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Premises operation continued		<p>Condition 1.3.3 has been included to specify the process requirements for each waste type which correspond with the occupier's processes as assessed by DER. This condition also specifies timeframes for waste storage and is included to correspond with the occupier's storage practices as well as assisting in reducing odour emissions associated with the decomposition of wastes being stored for longer periods of time. Windrow sizes and separation distances in this condition have been included as a secondary control for fire management.</p> <p>Condition 1.3.4 outlines the required infrastructure for storage and processing which has been included to require sufficient management of leachate generated at the premises. The requirements for composting process and storage areas, drainage channels and leachate pond meet 1×10^{-9} m/s permeability have been assessed as necessary to prevent contamination of surrounding land and groundwater. The requirements of the leachate pond have been included to align with the occupier's commitments for maintaining sufficient freeboard to prevent overtopping in an extreme weather event (24 hours duration for a 1 in 100 year event) which DER has assessed as being sufficient.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Rare <i>Risk Rating:</i> Moderate</p>	
Fugitive emissions	N/A	<p>Operation <u>Emission Description</u> <i>Emission:</i> Fugitive dust emissions generated from compost processing including grinding of wastes and turning windrows, as well as loading/unloading of wastes and products and general onsite vehicle movements. <i>Impact:</i> Potential for nuisance dust complaints and reduced local air quality. Emissions are anticipated to be minor and localised.</p>	<p>Application supporting documentation</p> <p>"J.D. Organics Pty Ltd, 276 Aurisch Road –</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Fugitive emissions continued		<p><i>Controls:</i> Windrows are wetted down as required to maintain moisture levels (between 40 – 60%) which assist in minimisation of dust generation. Handling of dry wastes and products and screening activities will not occur in adversely windy conditions or will be wetted down as required. Grinding activities are not undertaken at the premises. A boom sprayer (2,000 litre trailer-mounted tank with water pump and 4m wide spray mechanism) is located adjacent to the mixing area and hardstand to wet down any outside composting windrows and mixing activities.</p> <p>The composting shed is enclosed and fitted with an overhead sprinkler system to wet down windrows to assist in dust suppression. All trucks delivering unpackaged wastes or products to and from the premises will be covered to reduce dust during transport. Completed products are bagged in the enclosed bagging shed for transport off site.</p> <p>The occupier has also provided a Dust Management Plan (DMP) which outlines additional dust suppression measures including:</p> <ul style="list-style-type: none"> • Wetting down unsealed trafficked areas at the start of each day; • Reducing stockpile and windrow heights to 3 metres; • Regular onsite visual observation of dust emissions; • Limiting onsite speed to 40km/hour; • Maintaining a complaints register requiring investigations to be carried out if a complaint is received; and • Consideration of additional measures such as hydro-seeding, mulching or use of chemical crusting agents. <p>DER considers that the proposed dust control measures are sufficient at managing dust at the premises.</p>	Dust Management Plan” prepared by Bowman & Associates Pty Ltd (28 April 2015).



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Fugitive emissions continued		<p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Fugitive emissions of dust can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i>. In accordance with DER's licensing process, no specified conditions for fugitive emissions have been included on this licence.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p>	
Odour	N/A	<p>Operation</p> <p><u>Emission Description</u> <i>Emission:</i> Odours generated from composting processes. Odour may also be generated from the leachate pond, especially if it becomes anaerobic. <i>Impact:</i> Potential for nuisance odour complaints. Nearest odour sensitive receptors are located approximately 1 km from the composting operations. Odour emissions are anticipated to be localised. <i>Controls:</i> All windrows are monitored for CO₂, moisture and temperature on a weekly basis to verify that windrows are at optimum processing levels (12% CO₂, 60°C and 40-50% moisture) which are less likely to generate offensive odours. The leachate pond is fitted with an aerator to assist in keeping the pond aerobic.</p> <p>In the event that the pond begins to turn anaerobic, the occupier will dose the pond with a biocide and oxidizer product called e-Sanit 50. Boosta Blocks are</p>	Application supporting documentation



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Odour continued		<p>specially designed wax based blocks that provide the trace elements required for healthy pond microbes. A block is placed on either side of the leachate entry point on the pond to assist in maintaining aerobic conditions.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Odour emissions can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i>. In accordance with DER's licensing process, no specified conditions for odour have been included on this licence.</p> <p><u>Residual Risk</u> <i>Consequence:</i> Minor <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p>	
Noise	N/A	<p>Operation</p> <p><u>Emission Description</u> <i>Emission:</i> Unreasonable noise emissions generated from onsite activities and vehicle movements. <i>Impact:</i> Potential for nuisance noise emissions. Nearest noise sensitive receptors are located 900 metres from the compost process area. Any unreasonable noise emissions are anticipated to be short-term and localised with reversible effects. It is noted that the occupier was operating the premises without a licence from February 2013 – November 2014 and no noise complaints were received.</p>	<p>Application supporting documentation</p> <p><i>Environmental Protection (Noise) Regulations 1997</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Noise continued		<p><i>Controls:</i> Sound measurements were undertaken on 26 March 2015 at the premises boundary adjacent to the nearest sensitive receptor, and at the premises front gate. The LA₁ noise level recorded near the sensitive receptor was logged at 40 dB for 15 minutes with one peak at 62 dB. The LA₁ noise level recorded at the premises front gate was on average below 46.5 for 15 minutes with a maximum level at 59 dB. The LA₁ assigned noise level for day time hours is 55 dB as prescribed under the <i>Environmental Protection (Noise) Regulations 1997</i>.</p> <p>The occupier proposes to fit all onsite equipment and vehicles with mufflers and noise extraction systems. The occupier has also committed to hours of operation between 7am – 5pm Monday to Friday and 7am – 1pm on Saturday when noise emissions are likely comply with the assigned day time noise levels in the Noise Regulations.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> No specified licence conditions are required for noise emissions as these are managed in accordance with the Noise Regulations.</p>	
Monitoring general	L2.1.1 – L2.1.4	Monitoring is required under conditions 2.2.1 (inputs/outputs), 2.3.1(process) and 2.4.1 (groundwater). Condition 2.1.1 has been included on the licence to specify the methodology that is required to be undertaken for monitoring of compost quality and groundwater. These methods assist in ensuring reliability and accuracy of results.	N/A



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Monitoring general continued		<p>Condition 2.1.2 has been included on the licence to specify the minimum period of time authorised between sampling rounds and has been included to allow a more accurate representation a seasonal data obtained throughout the year.</p> <p>Condition 1.2.3 has been included for the calibration of monitoring equipment as per the manufacturer’s specifications. By calibrating to the manufacturer’s specifications, the equipment is likely to provide more reliable results.</p> <p>In the event that the monitoring equipment cannot be calibrated in accordance with the manufacturer’s specifications, or in other situations where discrepancies in calibration requirements occurs, DER needs to be made aware of this as it may impact on the reliability of monitoring results. Condition 1.2.4 has been included on the licence to require the occupier to notify the CEO when discrepancies or issues with calibration arise.</p>	
Monitoring of inputs and outputs	L2.2.1	Condition 1.3.1 specifies the types and volumes of materials permitted to be accepted at the premises. To allow DER to regulate the volume of wastes in compliance with this condition, condition 2.2.1 has been included on the licence to monitor the inputs and outputs of the premises.	Application supporting documentation
Process monitoring	L2.3.1	<p>The occupier has proposed to undertake weekly testing for temperature, moisture content and CO₂ to verify that the compost process is reaching optimum levels.</p> <p>Condition 2.3.1 has been included on the licence to require weekly monitoring of temperature and moisture content to assist in fire prevention (from internal combustion of windrows) and reducing odour emissions by monitoring that there is sufficient moisture content to support the biological processes within the windrows. This condition also requires the occupier to undertake compost quality sampling and testing in accordance with AS 4454.</p>	<p>Application supporting documentation</p> <p>Australian Standard AS 4454 <i>Composts, soil conditioners and mulches</i></p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Ambient quality monitoring	L2.4.1	<p>The occupier's site investigations have inferred that a superficial groundwater aquifer's saturated zone is located approximately 20 metres below ground level with an east-west groundwater flow. The depth to groundwater varies across the site from east to west as the topography changes. The two new groundwater bores installed under Stage 1 of the works approval on the western side of the premises, encountered groundwater at a depth of approximately 7 to 8 metres. The difference in groundwater elevation is consistent with site topography.</p> <p>The occupier has installed 5 groundwater monitoring bores to monitor water quality from the superficial aquifer. Two bores are located upstream of the compost facility and 3 are located downstream, with one of these immediately adjacent to the outside composting process area.</p> <p>The occupier has proposed to undertake quarterly monitoring at each of these bores for the following parameters:</p> <ul style="list-style-type: none"> • pH; • Electrical conductivity; • Colour (gilvin) • Total phosphorus; • Total nitrogen, nitrite, nitrate; • Total nitrogen as ammonia; • BOD; • E-Coli <p>In additional to the parameters outlined above, it is recommended that additional analytes, such as the standard suite of metals, are analysed during groundwater monitoring. These metals are identified in AS 4454 as chemical requirements of compost products and given their presence in the compost, these metals pose a risk of leaching to groundwater. Monitoring for these analytes is also recommended in in Appendix B of the document <i>Assessment and management</i></p>	<p>Application supporting documentation</p> <p>Australian Standard AS 4454 <i>Composts, soil conditioners and mulches</i></p> <p><i>Assessment and management of contaminated sites</i>, Contaminated sites guidelines, Department of Environment Regulation, December 2014</p> <p>Draft <i>Environmental Standard: composting</i>, June 2015, published by the Department of Environment Regulation</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Ambient quality monitoring continued		<p><i>of contaminated sites</i>, Contaminated sites guidelines, published by the Department of Environment Regulation, December 2014</p> <p>DER has included condition 2.4.1 to require quarterly groundwater monitoring to be undertaken at the premises to test for these common analytes. If groundwater monitoring demonstrates little to no impact on the quality of the groundwater after the first two years of operation, DER will reassess groundwater monitoring requirements and may reduce the frequency that sampling is required.</p>	
Information	L3.1.1 – L3.1.4, L3.2.1 and L3.3.1	<p>Condition 3.1.1 sets out the requirements for any records that are required under this licence, such as ensuring they are legible and retained for 6 years which assist DER in regulating the conditions of this licence.</p> <p>3.1.2 requires that any person left in charge of the Premises, is aware of the licence conditions and performs any tasks in compliance with the licence conditions which assist in operations being undertaken as specified in this licence.</p> <p>Condition 3.1.3 requires the occupier to undertake an audit of their operations against the conditions of the licence and to report on this compliance in an Annual Audit Compliance Report (AACR). This condition assists DER in regulating the occupier's compliance with licence conditions and allows an opportunity for DER to review the occupier's environmental performance.</p> <p>3.1.4 requires a complaints management system to be implemented where the occupier can internally address any issues that arise from premises operations. DER will review these complaints as reported in the Annual Environmental Report (AER) and can consider the requirement for reassessment of any regulatory controls to address the complaints.</p>	N/A



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Information continued		<p>3.2.1 requires the occupier to submit an AER. The AER is required to include the AACR and a summary of the complaints required under condition 3.1.4. The AER is also required to provide the results for the monitoring of inputs/outputs, process monitoring and groundwater monitoring. The occupier is also required to provide a summary of any malfunction of pollution control equipment or any environmental incidents. DER reviews all of the data provided in the AER to assess compliance with the licence conditions and to monitor the environmental impacts from the premises.</p> <p>Condition 3.3.1 requires the occupier to notify the CEO if there is a breach of any licence limit (i.e. processing limits) and to provide a calibration report (required under condition 2.1.2) if required. This condition also requires the occupier to advise of any fires at the premises. The notifications required under this condition give DER sufficient notice of any environmental impacts at the premises so that DER can determine if any further action is required to address the incident.</p>	
Licence Duration	N/A	The occupier intends to expand site operations under Stage 2, with the inclusion of manure composting activities increasing the throughput by 5,000 tonnes per year. Given that the planned expansion in operations has not yet been assessed by DER, a licence duration of 3 years will provide sufficient time for DER to assess information required under the current licence, including operations planned for Stage 2.	N/A



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
25/05/2015	Application advertised in <i>West Australian</i>	No submissions were received.	N/A
20/05/2015	Application referred to Shire of Gingin	Comments received on 2 June 2015 to advise that premises has Planning Approval for Noxious Industry.	N/A
10/08/2015	Proponent sent a copy of draft instrument	Proponent accepted the licence as provided.	N/A



6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High