Government of Western Australia
Department of Environment Regulation

Licence

Environmental Protection Act 1986, Part V

Licensee: Shire of Denmark

Licence: L6862/1997/11

Registered office: 953 South Coast Highway
DENMARK WA 6333

Premises address: McIntosh Road Waste Transfer Station
46 McIntosh Road
DENMARK WA 6333
Being Lot 7937 on Plan 193805 as depicted in Schedule 1.

Issue date: Thursday, 12 November 2015

Commencement date: Wednesday, 25 November 2015

Expiry date: Tuesday, 24 November 2020

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
61	Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated.	100 tonnes or more per year	400 tonnes per annual period
62	Solid waste depot: premises on which waste is stored or sorted pending final disposal or re-use	500 tonnes or more per year	5000 tonnes per annual period
63	Class I inert landfill site: premises on which waste (as determined by reference to the waste types set out in the document entitled "Landfill Waste Classification and Waste Definitions 1996" published by the CEO and as amended from time to time) is accepted for burial.	500 tonnes or more per year	5000 tonnes per annual period

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

Date signed: 12 November 2015
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Ruth Dowd
Officer delegated under section 20
of the *Environmental Protection Act 1986*

Contents

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
McIntosh Road Waste Transfer Station (WTS), operated by the Shire of Denmark, is located 4 kilometres east of the town of Denmark, just north of the South Coast Highway. The closest surface water body is located approximately 200 metres (m) to the west of the Premises. The nearest residential residence is located approximately 200 m south west of the Premises. The WTS serves the local Shire of Denmark catchment, with the closest landfills being the Albany Refuse site located about 50 km to the east and the Peaceful Waste Management Facility located about 40 km to the west.

The Premises main operation is a solid waste depot; the operations also include the disposal of clean fill, construction and demolition waste, glass, clinical waste and asbestos wastes by landfilling. The Premises also accepts green waste which is disposed of by burning. Liquid waste is also accepted to a small anaerobic and evaporation pond facility. A tip shop operates on the Premises, handling a significant volume of recyclable material including whitegoods. The controlled waste carrier access to the Premises is during operation hours, alternate access is arranged through the approval of the Shire of Denmark as required.

The main risk of emissions to the environment from the Premises is from contaminated stormwater, the overtopping of the liquid waste facility and seepage from the liquid waste facility ponds.
The licence is the result of an amendment sought by DER to convert the existing licence to a new format licence and to include improvement conditions with regards to the operation of the liquid waste facility. All known emission risks from the operation of the Premises have been assessed as part of this licence amendment and conversion process. The licences and works approvals issued for the Premises since 09/05/2000 are:

Instrument log		
Instrument	**Issued**	**Description**
L6862/1997/4	09/05/2000	Licence re-issue
L6862/1997/5	12/12/2001	Licence re-issue
L6862/1997/6	22/11/2002	Licence re-issue
L6862/1997/7	05/04/2004	Licence re-issue
L6862/1997/8	18/11/2004	Licence re-issue
L6862/1997/9	15/11/2007	Licence re-issue
L6862/1997/10	18/11/2010	Licence re-issue
L6862/1997/11	12/11/2015	Licence re-issue and amendment

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:

'acceptance criteria' has the meaning defined in Landfill Definitions;

'ACM' means asbestos containing material and has the meaning defined in the document Department of Health 2009, *Guidelines for the assessment, remediation and management of asbestos contaminated sites*, Government of Western Australia;

'Act' means the *Environmental Protection Act 1986;*

'AHD' means the Australian height datum;

'annual period' means the inclusive period from 1 January until 31 December in the same year;

'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;*

'asbestos' means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite and any mixture containing 2 or more of those;

'asbestos fibres' has the meaning defined in the document Department of Health 2009, *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*, Government of Western Australia;

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

'BGL' means below ground level;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Chief Executive Officer
Department Administering the *Environmental Protection Act 1986*
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

'clean fill' has the meaning defined in Landfill Definitions;

'construction and demolition waste' has the meaning defined in Landfill Definitions;

'contaminated solid waste' has the meaning defined in Landfill Definitions;

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

'DER Asbestos Guidelines' means document titled "Guidelines for managing asbestos at construction and demolition waste recycling facilities", published by the Department of Environment and Conservation, as amended from time to time;

'freeboard' means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point;

'green waste' means waste that originates from flora and which does not contain or has not been treated or coated with, preserving agents, biocides, fire retardants, paint, adhesives or binders;

'green waste storage area' means the area specifically designed for the safe storage and burning of green waste at the Premises as depicted in Schedule 1;

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

'hazardous waste' has the meaning defined in Landfill Definitions;

'inert waste type 1' has the meaning defined in Landfill Definitions;

'inert waste type 2' has the meaning defined in Landfill Definitions;

'Landfill Definitions' means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time;

'Licence' means this Licence numbered L6862/1997/10 and issued under the Act*;*

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

'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;

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

'putrescible' has the meaning defined in Landfill Definitions;

'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 in that year;

'rehabilitation' means the completion of the engineering of a landfill cell and includes capping and/or final cover;

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

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

'solid waste' has the meaning defined in Landfill Definitions;

'special waste type 1' has the meaning defined in Landfill Definitions;

'special waste type 2' has the meaning defined in Landfill Definitions;

'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;

'waste code' means the Waste Code assigned to a type of controlled waste for purposes of waste tracking and reporting as specified in the document titled "Controlled waste category list" published by the Department of Environment Regulation, as amended from time to time.

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 in the Licence means the version of that guideline in force from time to time, and must include any amendments or replacements to that guideline 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 must 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 must immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

1.3 Premises operation

1.3.1 The Licensee must record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 1.3 of this Licence

1.3.2 The Licensee must only accept waste on to the Premises if:
(a) it is of a type listed in Table 1.3.1 and Table 1.3.2;
(b) the quantity accepted is below any quantity limit listed in Table 1.3.1 and Table 1.3.2; and
(c) it meets any specification listed in Table 1.3.1 and Table 1.3.2.

Table 1.3.1: Solid waste acceptance

Waste type	Waste code	Quantity limit	Specification[1]
Inert Waste Type 2	T140 (used tyres); not applicable for other wastes	Combined total of up to 5000 tonnes per annual period for wastes accepted under category 62	None specified
Hazardous waste	J100 (waste oil); F120 and F100 (paint); D221 (used lead acid batteries); not applicable for other wastes		Limited to: i) Waste oil; ii) Paint; and iii) Batteries.
Putrescible waste	Not applicable		None specified
Recyclable waste	Not applicable		Limited to recyclable items.

Clean Fill	Not applicable	Combined total of up to 5000 tonnes per annual period for wastes accepted under category 63	None specified
Contaminated solid waste	Not applicable		Must meet the Class I Landfill Definitions acceptance criteria
Inert Waste Type 1	Not applicable		Waste containing visible asbestos or ACM must not be accepted
Special Waste Type 1	N220 (asbestos)		Only wrapped asbestos must be accepted

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

Table 1.3.2: Liquid waste acceptance

Waste type	Waste code	Quantity limit	Specification[1]
Waste from grease traps	K110	400 tonnes per annual period accepted under category 61	i) Tankered into the Premises and discharged into the liquid waste facility anaerobic pond at the discharge point depicted in Schedule 1 and labelled L1. ii) No liquid waste must be accepted at the Premises after 30 June 2017.
Septage wastes	K210		
Car and truck wash waters	L100		

Note 1: Additional requirements for the acceptance of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.3.3 The Licensee must ensure that where waste does not meet the waste acceptance criteria set out in condition 1.3.2 it is immediately removed from the Premises.

1.3.4 The Licensee must ensure that wastes accepted onto the Premises are only subjected to the process set out in Table 1.3.3 and Table 1.3.4 and in accordance with any process requirements described in those tables.

Table 1.3.3: Solid waste processing

Waste type	Process	Process requirements[1]
All	As specified below	a) No waste must be stored or landfilled within 35 m from the boundary of the Premises.
Clean Fill Inert Waste Type 1	Receipt, handling, associated storage and disposal of waste by landfilling	b) Disposal of waste by landfilling must only take place within the active landfill area shown on the Premises map in Schedule 1. c) The separation distance between the base of the landfill and the highest groundwater level must be no less than 3 m. d) Waste to be landfilled must: i) be placed in a defined trench or within an area enclosed by earthen bunds; ii) not be exposed with a vertical face exceeding two metres.
Special Waste Type 1	Receipt, handling, associated storage and disposal of waste by landfilling	<u>Special Waste Type 1:</u> e) Must only be disposed of into the designated asbestos waste active landfill area. f) Must be disposed under witness by a representative of the Licensee. g) Must not to be deposited within 2 m of the final tipping surface of the landfill. h) No works shall be carried out on the landfill that could lead to a release of asbestos fibres.
Inert Waste Type 2	Receipt, handling and storage prior to disposal offsite	i) Less than 100 used tyres must be stored at the Premises at any one time.
Other wastes (including contaminated solid waste)		j) The Licensee must remove from the Premises, a minimum of twice a week, waste that does not comply with Acceptance Criteria for Class I landfills.
Putrescible waste (not including green waste)		k) The Licensee must remove all putrescible waste from the Premises a minimum of twice a week. l) Tansfer bin lids will be kept closed when not in use and when the Premises is closed. m) Transfer bins for waste storage must be located on a hardstand area that drains any leakage to a sump or septage ponds.

Recyclable items Hazardous waste	Receipt, handling and storage prior to recycling offsite	n) Waste oil must only be stored within the designated waste oil receptacle and drums containing waste oil within an area fully enclosed by a bund. o) Paint and vehicle batteries must only be stored within an area fully enclosed by a bund. p) Paint must not be disposed of at the Premises in liquid form.
Green waste	Receipt, handling, storage, mulching and disposal by burning or re-use as mulch	<u>Green waste storage and mulching:</u> q) Mulching must only occur within the green waste storage area. r) Less than 1000 tonnes of green waste shall be mulched in an annual period. s) A bund must be installed and maintained around the green waste storage area. t) A fire break of no less than 5 m must be maintained around the green waste storage area. <u>Burning of green waste</u> u) Green waste must only be burnt if: i) Burning takes place in the designated green waste storage area as depicted in Schedule 1; ii) Burning is undertaken in a manner that minimises smoke emissions; iii) Burning takes place only when appropriate procedures are in place at the Premises so that burning can be undertaken in a safe and controlled manner; and iv) Green waste is free of any contaminant.

Note 1: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

Table 1.3.4: Liquid waste processing

Waste type	Process	Process requirements[1]
Waste from grease traps Septage wastes Car and truck wash waters	Biological treatment and evaporation	The Licensee must ensure that all sludge removed from a pond at the Premises is located on a hardstand area which: a) contains all sludge and run-off; and b) drains any leachate to a sump or into the anaerobic pond.

Note 1: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.3.5 The Licensee must manage the landfilling activities to ensure:
(a) waste is levelled and compacted as soon as practicable after it is discharged;
(b) waste is placed and compacted to ensure that the final landfill profile including capping does not exceed a slope steeper than 20 degrees; and
(c) rehabilitation of a cell or phase takes place within 6 months after disposal in that cell or phase has been completed.

1.3.6 The Licensee must ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.3.5 and that sufficient stockpiles of cover are maintained on site at all times.

Table 1.3.5: Cover requirements

Waste Type	Material	Depth	Timescales
Special Waste Type 1	Type 1 Inert waste or clean fill	300mm	As soon as practicable after deposit and prior to compaction, no later than the end of the working day
Clean fill and Inert Waste Type 1	No cover required		

1.3.7 The Licensee must implement the following security measures at the site:
(a) erect and maintain suitable fencing to prevent unauthorised access to the site;
(b) ensure that any entrance gates to the Premises are securely locked when the Premises are unattended; and
(c) undertake regular inspections of all security measures and repair damage as soon as practicable.

1.3.8 The Licensee must install and maintain a sign at the entrance to the Premises which clearly displays the following information:
(a) hours of operation;
(b) contact telephone number;
(c) a warning indicating penalties for people lighting fires; and
(d) types of waste accepted.

1.3.9 The Licensee must take all reasonable and practical measures to ensure that:
(a) no windblown waste escapes from the Premises: and
(b) windblown waste is collected on at least a weekly basis and returned to the transfer bins.

1.3.10 The Licensee must ensure that:
(a) no waste is burnt on the Premises unless otherwise specified in Table 1.3.3; and
(b) that any waste being burnt at the Premises is extinguished as soon as possible.

1.3.11 The Licensee must implement control measures to prevent infestations of pests, flies and vermin at the Premises.

1.3.12 The Licensee must manage all liquid waste facility ponds such that:
(a) overtopping of the ponds does not occur;
(b) a minimum freeboard of 300mm is maintained;
(c) the integrity of the anaerobic crust is maintained; and
(d) vegetation is prevented from encroaching onto pond surfaces or inner pond embankments.

2 Monitoring

2.1 General monitoring

2.1.1 The Licensee must ensure that:
(a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
(b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
(c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.

2.1.2 The Licensee must ensure that:
(a) monthly monitoring is undertaken at least 15 days apart; and
(b) quarterly monitoring is undertaken at least 45 days apart.

2.1.3 The Licensee must 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 and the requirements of the Licence.

2.1.4 The Licensee must, 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 must undertake the monitoring in Table 2.2.1 according to the specifications in Table 2.2.1.

Table 2.2.1: Monitoring of inputs and outputs				
Input/ Output	**Parameter**	**Units**	**Averaging period**	**Frequency**
Waste Inputs	Waste types as stated in Table 1.3.1 and Table 1.3.2	tonnes (where a weighbridge is available) m^3 (where no weighbridge is available)	N/A	Each load arriving at the Premises
Waste Outputs	Waste type as defined in the Landfill Definitions			Each load leaving or rejected from the Premises

2.3 Ambient environmental quality monitoring

2.3.1 The Licensee must undertake the monitoring in Table 2.3.1 according to the specifications in Table 2.3.1.

Table 2.3.1: Monitoring of ambient groundwater quality				
Monitoring point reference and location	**Parameter**	**Units**	**Averaging period**	**Frequency**
MB1, MB2, MB3	Standing water level[1]	mAHD; mBGL	Spot sample	Quarterly
	pH[1]	-		
	Ammonium (NH_4^+)	mg/L		
	Potassium			
	Oils and grease			
	Total biological oxygen demand			
	Total dissolved solids			
	Total nitrogen			
	Total phosphorus			
	Total organic carbon			
	Total recoverable hydrocarbons			

Note 1: In-field non-NATA accredited analysis permitted.

3 Improvements

3.1 Improvement program

3.1.1 The Licensee must complete the improvements in Table 3.1.1 by the date of completion in Table 3.1.1.

Table 3.1.1: Improvement program		
Improvement reference	**Improvement**	**Date of completion**
IR1	The Licensee must prepare and submit to the CEO an Asbestos Management Plan (AMP). As a minimum the AMP must include; (a) Standard operational procedures (SOP's) for the pre-acceptance and acceptance of waste and how any asbestos detected on site will be managed; (b) Identification of each person's roles and responsibilities under the AMP; and (c) Procedures for detailing incidents or emergencies associated with asbestos. that are consistent with the DER Asbestos Guidelines.	31/03/2016
IR2	The Licensee must submit to the CEO a liquid waste facility management plan for the Premises. The liquid waste facility management plan must include: (a) Detail the closure and remediation plans for the existing liquid waste ponds; and (b) Detail any actions and associated timeframes that will be undertaken at the Premises for the management of the liquid waste facility.	30/06/2016

4 Information

4.1 Records

4.1.1 All information and records required by the Licence must:
(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 4.1.1(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.

4.1.2 The Licensee must 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.

4.1.3 The Licensee must 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.

4.1.4 The Licensee must 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.

4.1.5 The Licensee must maintain a register of Special Waste Type 1 disposed of at the Premises which must include:
(a) a plan showing the position of Special Waste Type 1 disposed of at the Premises;
(b) the contact details and vehicle registrations of persons or operators bringing Special Waste Type 1 and Special Waste Type 2 to the site for disposal and record the individual volumes disposed; and
(c) the signatures of the Licensee representative witness to the burial of Special Waste Type 1 or Special Waste Type 2 to attest that the burial has been in accordance with the relevant legislative requirements.

4.2 Reporting

4.2.1 The Licensee must submit to the CEO an Annual Environmental Report within 60 calendar days after the end of the annual period. The report must contain the information listed in Table 4.2.1 in the format or form specified in Table 4.2.1.

Table 4.2.1: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form[1]
-	Summary of any failure or malfunction of any pollution control equipment or any incidents that have occurred during the annual period and any action taken	None specified
Table 1.3.2	Summary of any deviations from the process requirements and any action taken.	
Table 2.2.1	Summary of all inputs and outputs monitoring data which must include: (a) data in a table format for the annual period; and (b) comment on annual trends.	

Table 2.3.1	Summary of all monitoring data for ambient groundwater quality which must include: (a) data in a table format for the annual period; (b) data in graphical format for trend analysis to include at least the last four years data where available; and (c) an assessment of ambient groundwater quality monitoring data for the risk and likelihood of seepage from the ponds.	None specified
Condition 3.1.1	Summary of actions undertaken and progress to meet the improvement condition requirements for improvement condition reference IR1 and IR2.	None specified
4.1.3	Compliance	Annual Audit Compliance Report (AACR)
4.1.4	Complaints summary	None specified
-	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	
-	Measures taken to suppress dust	
-	Measures taken to control windblown waste	

Note 1: Forms are in Schedule 2

4.2.2 The Licensee must submit the information in Table 4.2.2 to the CEO according to the specifications in that table.

Table 4.2.2: Non-annual reporting requirements

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

4.3 Notification

4.3.1 The Licensee must ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of Table 4.3.1.

Table 4.3.1: Notification requirements

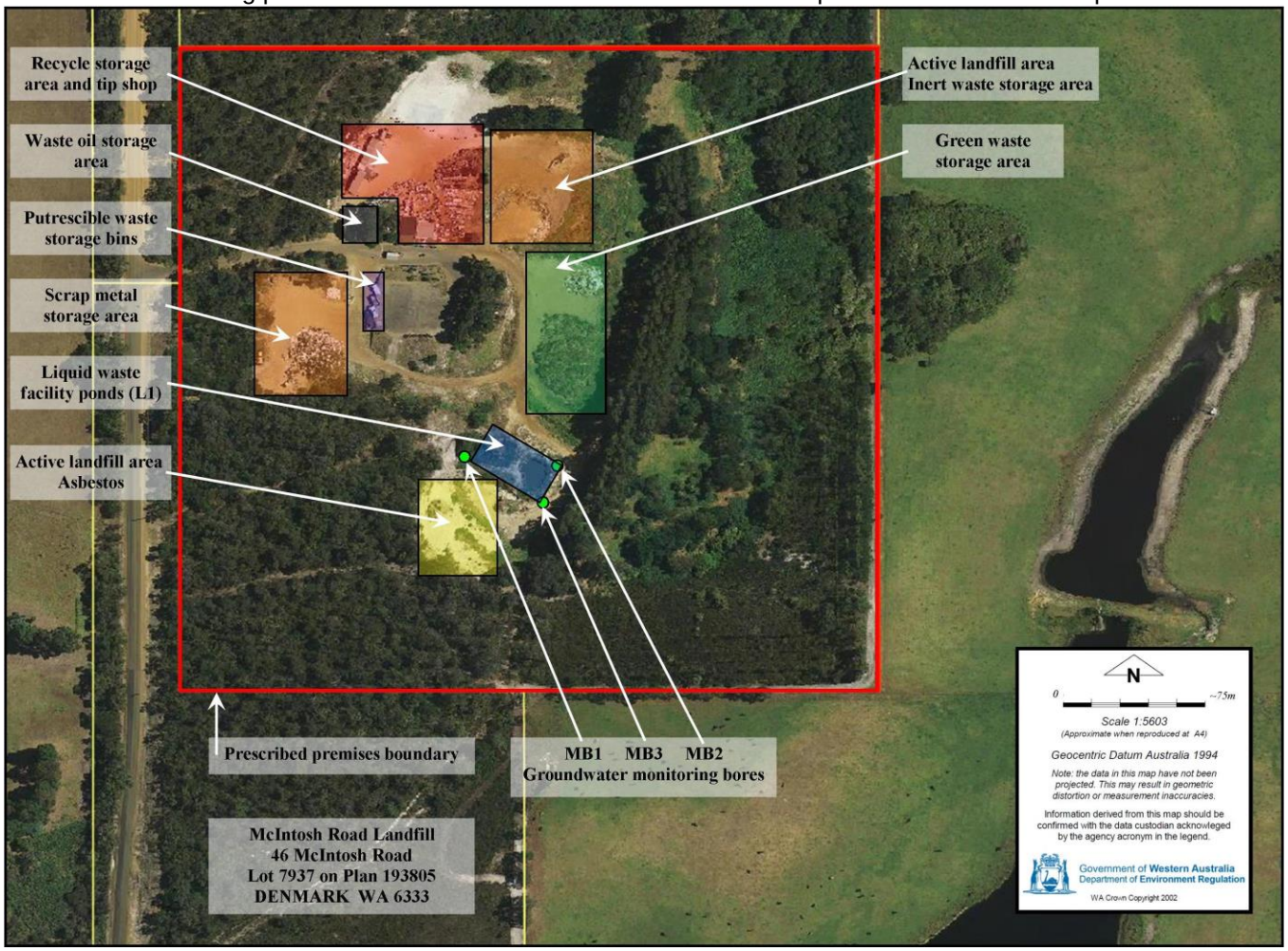
Condition or table (if relevant)	Parameter	Notification requirement[1]	Format or form[2]
-	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
1.3.3	Removal of sludge from a pond	No less than 14 days in advance of works	None specified
1.3.10	Report any unauthorised fire	Within 14 days of identifying the fire: (a) Detail the date, time and location of the incident; (b) Detail the date and time the fire was extinguished; (c) Detail the extent of any smoke and/ or leachate emissions from the incident; (d) The cause or suspected cause of the fire.	

Note 1: Notification requirements in the licence must 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 and location of the monitoring points defined in Table 2.3.1 are shown in the map below. The red line depicts the Premises boundary.



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: Trading as:	ABN:
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?:	
☐ Yes ☐ Reported to DER verbally Date _____ ☐ Reported to DER in writing Date _____	☐ 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	□	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	□	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	□	by affixing the common seal of the licensee in accordance with the *Corporations Act 2001*; 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)	□	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	□	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: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: _____/_____/_____

SEAL (if signing under seal)

Licence: L6862/1997/10 Licensee: Shire of Denmark
Form: N1 Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.
Units of measurement used in information supplied under Part A and B requirements must 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 Shire of Denmark	
Date	

Government of Western Australia
Department of Environment Regulation

Decision Document

Environmental Protection Act 1986, Part V

Proponent: Shire of Denmark

Licence: L6862/1997/11

Registered office: 953 South Coast Highway
DENMARK WA 6333

Premises address: McIntosh Road Waste Transfer Station
46 McIntosh Road
DENMARK WA 6333
Being Lot 7937 on Plan 193805

Issue date: Thursday, 12 November 2015

Commencement date: Wednesday, 25 November 2015

Expiry date: Tuesday, 24 November 2020

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER) has decided to issue an amended licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Peter van Schoubroeck
Licensing Officer

Decision Document authorised by: Caron Goodbourn
A/Manager Licensing

Contents

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 ☐ New Licence ☒ Licence amendment ☐ Works Approval amendment ☐	
Activities that cause the premises to become prescribed premises	**Category number(s)**	**Assessed design capacity**
	61	400 tonnes per annual period
	62	5000 tonnes per annual period
	63	5000 tonnes per annual period
Application verified Application fee paid	Date: 18/09/2015 Date: 02/10/2015	
Works Approval has been complied with Compliance Certificate received	Yes☐ No☐ N/A☒ Yes☐ No☐ N/A☒	
Commercial-in-confidence claim	Yes☐ No☒	
Commercial-in-confidence claim outcome	Not applicable	
Is the proposal a Major Resource Project?	Yes☐ No☒	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986*?	Yes☐ No☒	Referral decision No: Managed under Part V ☐ Assessed under Part IV ☐
Is the proposal subject to Ministerial Conditions?	Yes☐ No☒	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 *Environmental Protection Act 1986*)?	Yes☐ No☒ Department of Water consulted Yes ☐ No ☒	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes☒ No☐ *Environmental Protection South West Agriculture Zone Wetlands Policy 1998*		
Is the Premises subject to any EPP requirements? Yes☐ No☒		

3 Executive summary of proposal and assessment

McIntosh Road Waste Transfer Station (WTS), operated by the Shire of Denmark, is located about four kilometres east of the town of Denmark, just north of the South Coast Highway. The WTS serves the local Shire of Denmark catchment, with the closest landfills being the licensed Albany Refuse site located about 50 km to the east and the registered Peaceful Waste Management Facility located about 40 km to the west.

The WTS main operation is a solid waste depot. Operations also include the disposal of clean fill, construction and demolition waste, glass and asbestos wastes by landfilling. The Premises also accepts green waste which is primarily disposed of by burning. Liquid waste is also accepted to a small anaerobic and evaporation pond facility. The controlled waste carrier access to the Premises is during operational hours, alternate access is arranged through the approval of the Shire of Denmark as required. A tip shop operates on the Premises, handling recyclable material including whitegoods.

The main risk of emissions to the environment from the Premises is from contaminated stormwater, the overtopping of the liquid waste facility and seepage from the liquid waste facility ponds.

Potential sensitive receptors in the vicinity of the WTS include:

- A surface water body located approximately 200 metres (m) to the east of the Premises;
- A residence located approximately 200 m south west of the Premises;
- Native vegetation located directly east of the Premises facilities; and
- Local groundwater (depth unknown, the Premises is situated between the 35 and 55 metre AHD topographic contours, surface water occurs to the east within the 20 and 25 topographic contour range).

An assessment undertaken by DER of the liquid waste facility ponds indicate that the integrity of pond liners may be compromised leading to the seepage of liquid waste. A water balance assessment indicates that rainfall and liquid waste inputs are in excess of the liquid waste facility evaporative capacity. In addition groundwater monitoring results around the liquid waste facility have shown elevated contaminant levels in bore MB2. An improvement condition has been included in the Licence to address this. The Shire of Denmark concurs with the findings that seepage may be occurring from the liquid waste facility.

This Licence is the successor to licence L6862/1997/9 and includes conditions for:

- Appropriate and accurate interpretation of the licence;
- Operational and emission specific controls;
- Emission and ambient environmental monitoring controls;
- Improvement controls for asbestos management and liquid waste facility operations; and
- Information and reporting controls.

The reissue and amendment process has considered all conditions under the previous licence version and imposed additional conditions as justified with this Decision Document. All known emission risks from the operation of the Premises have been assessed as part of this licence amendment and reissue process.

4 Decision table

All applications are assessed under the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* 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**
Interpretation	L1.1.1-1.1.5	Conditions 1.1.1 – 1.1.5 requires that terminology used within the licence is referenced to the appropriate definitions where applicable, that any reference to a standard or guideline is to the most current version of that standard or guideline and that emissions not authorised through the licence comply with the provisions of the *Environmental Protection Act 1986*.	General provisions of the *Environmental Protection Act 1986*

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	L1.2.1 and L1.2.2	**Operation** Condition 1.2.1 requires that all pollution control and monitoring equipment is maintained such that it is operational and fit for purpose. Condition 1.2.2 requires that all spills of environmentally hazardous materials that may discharge to the environment are immediately rectified. **Operation** Emission description: *Emission:* The quality of stormwater discharged from the Premises may deteriorate where stormwater is not appropriately managed and comes into contact with waste. *Impact:* Increased localised contaminated loads in emissions to land and potentially to groundwater. The Premises waste management areas are approximately 230 metres west of the nearest water body, separated by native vegetation and paddock. *Controls:* Grading of site topography, bunds, physical containment of waste facilities, site maintenance and stormwater retention. Risk assessment: *Consequence:* Minor *Likelihood:* Unlikely *Risk Rating:* Moderate Regulatory Controls: It is considered that the provisions of Section 49 of the *Environmental Protection Act 1986* and the provisions of the *Environmental Protection (Unauthorised Discharge) Regulations 2004* are sufficient to regulate the emissions of stormwater. Conditions under section 1.3 of the licence provide further controls that limit the risk of contaminants being able to be mobilised within stormwater. Conditions 32, 33 and 34 in the previous licence have been removed. Residual risk assessment: *Consequence:* Minor *Likelihood:* Rare *Risk Rating:* Low	Application supporting documentation General provisions of the *Environmental Protection Act 1986*

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	L1.3.1 - 1.3.12	More detail on the assessment and decision making are detailed in Appendix A, B and C.	General provisions of the *Environmental Protection Act 1986*
Fugitive emissions	N/A	**Operation** Emission description: *Emission:* Dust from vehicle movements generated during the placement and transfer of waste management activities during normal operations is possible if appropriate dust management procedures are not implemented. Smoke from the periodic burning of green waste is assessed separately in Appendix B. *Impact:* Reduced local air quality from airborne particulates is possible which may impact roadways, commercial and residential receptors, which are located about 500 metres to the west and south. *Controls:* Vehicle speed restrictions, controlled access, partially sealed roads, access to water carts. Risk assessment: *Consequence:* Minor *Likelihood:* Rare *Risk Rating:* Low Regulatory Controls: It is considered that the provisions of Section 49 of the *Environmental Protection Act 1986* are sufficient to regulate odour emissions. Condition 26 in the previous licence has been removed. Residual risk assessment: *Consequence:* Minor *Likelihood:* Rare *Risk Rating:* Low	General provisions of the *Environmental Protection Act 1986*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Odour	L1.3.12	**Operation** Emission description: *Emission:* Odour may be generated from the liquid waste facility ponds if the crust is disturbed and from any sludge management activities. Odour may also be generated from putrescible waste if left uncovered and for too long a period. *Impact:* Interference with the health, welfare, convenience, comfort or amenity of sensitive commercial and residential receptors, which are located about 500 metres to the west and south. *Control:* Maintenance of the putrescible waste storage bins through regular removal of waste and lids being shut when not in use. Maintaining the anaerobic pond crust on the liquid waste ponds under normal operating conditions has proved effective to control odour emissions. Historically under normal operating conditions odour emissions have not resulted in complaints. Risk Assessment: *Consequence:* Minor *Likelihood:* Unlikely *Risk Rating:* Moderate Regulatory controls: It is considered that the provisions of Section 49 of the *Environmental Protection Act 1986* are sufficient to regulate odour emissions. Condition 1.3.12 requires the anaerobic crust on the Liquid waste facility anaerobic pond to be maintained. Residual Risk: *Consequence:* Minor *Likelihood:* Rare *Risk Rating:* Low	General provisions of the *Environmental Protection Act 1986*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Noise	N/A	**Operation** Noise emissions generated at the Premises have not resulted in complaints or been identified as an issue. Therefore no licence conditions are required in this section. Should noise emissions arise from the Premises operation they can be managed under the requirements of the *Environmental Protection (Noise) Regulations 1997*.	*Environmental Protection (Noise) Regulations 1997*
Monitoring general	L2.1.1 - L2.1.4	**Operation** These Licence conditions require precision and accuracy during sample collection, analysis and reporting. Condition 3.1.1 has replaced conditions 39 and 40 in the previous licence.	General provisions of the *Environmental Protection Act 1986*
Monitoring of inputs and outputs	L2.2.1	**Operation** OSC 2.2.1 has been included to require that the volume of all waste types accepted at the Premises and non-conforming loads are recorded. This will facilitate the determination of compliance against conditions under section 1.3 of the licence.	General provisions of the *Environmental Protection Act 1986*
Ambient quality monitoring	L2.3.1	**Operation** **Monitoring of potential impacts to groundwater:** Three groundwater monitoring bores are currently located close to the clay lined liquid waste facility ponds (refer to Schedule 1 of the licence for locations). The bores are located so that potential seepages through the pond liner entering groundwater can be detected. The parameters standing water level, total phosphorus, oil and grease and total recoverable hydrocarbons have been included in the monitoring program to facilitate a more accurate assessment of potential impacts on groundwater quality from activities at the Premises. The parameters appearance, colour and odour have been removed due to their subjective nature and not being a reliable indicator of potential impact. Condition 2.3.1 has replaced conditions 38 and 39 in the previous licence.	General provisions of the *Environmental Protection Act 1986*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Improvements	L3.1.1	**Operation** Assessment and decision making are detailed in Appendix C.	General provisions of the *Environmental Protection Act 1986* *Guidelines for managing asbestos at construction and demolition waste recycling facilities*, published by the Department of Environment and Conservation

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Information	L1.3.1; L4.1.1 - 4.1.5; L4.2.1, L4.2.2; and L4.3.1	**Operation** Condition 1.3.1 requires that the Licensee investigates any descriptive or numerical limit being exceeded in conditions 1.3.2 – 1.3.12 and subsequent reporting requirements can be fulfilled. Condition 4.1.1 requires that information and reporting is clear, legible and retained for an appropriate time period. Condition 4.1.2 requires that employees and representatives of the proponent at the Premises are aware of the requirements of the Licence. Condition 4.1.3 requires that the Annual Audit Compliance Report is completed and subsequently submitted under condition 4.2.1. Condition 4.1.4 requires that a complaints management system is implemented and maintained. Condition 4.1.5 has replaced conditions 6 and part of 5 in the previous licence. The condition requires that the acceptance and disposal of Special Waste Type 1 is managed and documented. Condition 4.2.1 and outlines the information to be included in the Annual Environmental Report. Some of the reporting requirements have not been reflected in the amended licence as these have been replaced with standard reporting requirements. Condition 4.2.1 has replaced conditions 18, 19, 20 and 21 in the previous licence. Condition 4.2.2 requires that the reported monitoring results can be verified against original accredited laboratory reports on request. Condition 4.3.1 has replaced condition 45 in the previous licence. In addition the condition has been included to identify (a) any limits being exceeded and (b) any sludge management activities being undertaken and (c) any unauthorised fires occurring.	General provisions of the *Environmental Protection Act 1986*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Licence Duration	N/A	The Licence has been reissued for a five year period through until late 2020. This timeframe takes into consideration the factors within the document *Guidance statement: licence duration*. No other statutory approvals have been identified as limiting the timeframe for the issue of this licence. The risk of emissions and associated assessment of those emissions is subject to a level of uncertainty and requires review following the provision of further information regarding liquid waste facility management arrangements.	General provisions of the *Environmental Protection Act 1986*

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
02/10/2010	Application advertised in West Australian (or other relevant newspaper)	None	None applicable
22/10/2015	Proponent sent a copy of draft instrument	None	None applicable
	Instrument issue advertised in West Australian		

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

Appendix A: Premises operation

Premises operation

Emission description:

Emission: Waste could potentially enter the environment in the form of solid waste if the operations at the Premises are not appropriately managed; this includes the acceptance, handling, storage, disposal and transfer of waste. Containment failure, site security and vermin and pest management are considered within the emission risk management framework.

Impact: The possible impacts on receptors include the degradation of adjacent natural environment (fauna and flora), contamination of surface and/ or ground water, windblown waste impacting nearby commercial and private property and the South Coast Highway, all located within 250 metres of the Premises.

Controls: The Premises is staffed during operational hours, dedicated locations and infrastructure is provided for managing different waste types, routine maintenance is performed.

Risk assessment:

Consequence: Moderate
Likelihood: Unlikely
Risk Rating: Moderate

Regulatory controls:

A range of regulatory controls for the management of emissions are included in conditions 1.3.2 to 1.3.12 of the Licence. Regulatory controls are:

- Conditions 1.3.2 through 1.3.4 require that waste acceptance, storage and processing of approved types, within approved volumes and the facilities operating capacity, with appropriate management of non-conforming loads using a method that the Licensee can achieve. Condition 1.3.2 has replaced conditions 1 and 42 in the previous licence. Condition 1.3.4 has replaced conditions 2, part of 5, 7, 8, 14 through 17, 23, part of 28 and 35 in the previous licence. Approval to accept clinical waste has been removed from the licence in consultation with the Shire of Denmark.
- Conditions 1.3.5 and 1.3.6 require that waste cover and rehabilitation of completed cells is applied to landfilled waste. Condition 1.3.6 has replaced conditions 3 and 4 in the previous licence.
- Conditions 1.3.7 and 1.3.8 require that appropriate security measures and signs are in place at the Premises. Condition 1.3.7 has replaced conditions 9 and 10 in the previous licence. Condition 1.3.8 has replaced condition 13 in the previous licence.
- Conditions 1.3.9, 1.3.10 and 1.3.11 require waste that becomes windblown, fire, pests and vermin are appropriately managed at the Premises. Condition 1.3.10 has replaced conditions 27 and 29 in the previous licence.
- Condition 1.3.12 requires liquid waste ponds to be maintained in a manner that does not result in overtopping, minimises odour emissions and protects the integrity of the pond liners.

Residual risk:

Consequence: Moderate
Likelihood: Rare
Risk Rating: Moderate

Premises operation (asbestos)

Emission description:

Emission: Asbestos and asbestos fibres may become airborne or spread through soils.
Impact: The spread of asbestos, particularly airborne fibres poses a significant health risk (e.g. asbestosis) to people exposed to the Premises air shed if not appropriately managed.
Controls: Limitations on the form of asbestos accepted, dedicated handling and disposal methods and monitoring of the input and disposal of asbestos. Waste containing visible asbestos or asbestos containing materials is not received at the premises.

Risk assessment:

Consequence: Major
Likelihood: Unlikely
Risk Rating: Moderate

Regulatory controls:

- Condition 1.3.2 limits that acceptance of waste and the forms of asbestos containing material.
- Condition 1.3.3 requires that non-conforming wastes, which can include forms of asbestos, are immediately removed from the Premises.
- Condition 1.3.4 requires the disposal of asbestos containing materials to be undertaken following appropriate process requirements.
- Condition 1.3.5 requires asbestos containing material to be covered appropriately with 24 hours of being deposited.
- Condition 3.1.1 (IR1) requires an Asbestos Management Plan to be submitted which is in accordance with the document *Guidelines for managing asbestos at construction and demolition waste recycling facilities*. Adherence to such a plan will help ensure the health and safety of workers and neighbouring residences and members of the public should asbestos inadvertently be accepted and possibly released at the Premises. This is a standard requirement for prescribed premises undertaking such activities.
- The *Environmental Protection (Controlled Waste) Regulations 2004* provides additional regulatory requirements for the transport and disposal of asbestos under Division 6.

Residual risk:

Consequence: Major
Likelihood: Rare
Risk Rating: Moderate

Appendix B: Fugitive emissions

Fugitive emissions – Smoke

Emission description:

Emission: Periodic controlled burning of green waste can result in the emission of smoke and airborne debris. Burning of non-green waste could result in toxic air emissions.

Impact: Interference with the health, welfare, convenience, comfort or amenity of sensitive commercial and residential receptors, which are located about 500 metres to the west and south. The receptors include the adjacent natural environment, nearby commercial and private property all located within 250 metres of the Premises. Reduced visibility along South Coast Highway is also possible. Impacts are likely to be of short-duration, limited to the duration of the fire and smouldering of green waste material. These impacts are highly variable depending on meteorological conditions at the time of burning.

Controls: Burning of green waste is undertaken in controlled circumstances with approval from the Shire of Denmark and in accordance with the requirements of the *Bushfires Act 1954*. The exclusion of non-green waste from the burning piles reduces the likelihood of other (toxic) air pollutants.

Risk assessment:

Consequence: Minor
Likelihood: Likely
Risk Rating: Moderate

Regulatory controls:

Condition 1.3.4 requires the Licensee to ensure that green waste is dry prior to burning, burning is only undertaken within the approved area, smoke is minimised and that burning is undertaken in a safe and controlled manner.

Condition 1.3.10 requires the Licensee to ensure that only green waste is burnt at the Premises and that any waste being burnt is extinguished as soon as possible.

It is considered that the provisions of Section 49 of the *Environmental Protection Act 1986* are sufficient to regulate smoke emissions beyond that achieved by condition 1.3.4 and 1.3.10.

Residual risk:

Consequence: Minor
Likelihood: Possible
Risk Rating: Moderate

Appendix C: Improvement conditions

Improvement reference IR2:

The liquid waste facility at the Premises has been identified as potentially having a compromised liner and to be seeping into the local groundwater. The construction date of the ponds is unknown and no works approval or assessment was undertaken for the construction and operation of the ponds. The two pond construction system indicates that the ponds were designed to manage liquid waste via evaporation. The basis for this assessment is detailed below under the section '*Supporting information for liquid waste facility seepage potential'*. The assessment has indicated that the hydraulic load applied to the ponds cannot be contained without overflow and/or seepage. Groundwater monitoring bore data supports the hypothesis that seepage is occurring.

Emission description:

Emission: Potential seepage of contaminants through a compromised pond liner or where the hydraulic conductivity of the liner results in excessive seepage. Water balance calculations indicate that liquid waste volumes received may be greater than those evaporated, suggesting leakage though the liner. Groundwater monitoring bore data also indicates seepage is occurring. See content under subheading 'Supporting information for liquid waste facility seepage potential'.
Impact: Seepage of liquid waste from the ponds could result in the nutrients (nitrogen and phosphorus) entering the groundwater which could impact local groundwater quality and down gradient native vegetation. Agricultural dams are located ~270 metres to the east and south east of the liquid waste ponds. The dams are part of a minor perennial water course which drains into Wilson Inlet. Data available from the groundwater monitoring bores at the Premises indicate total dissolved solids at or below 600 mg/L. There is currently no information on standing water level relative to the base of the ponds, or the underlying permeability of soils and geology at the Premises.
Controls: Groundwater monitoring bores are in place to monitor for the potential impact of seepage from the ponds. The integrity and hydraulic conductivity of the pond liners and the validity of existing groundwater monitoring data is uncertain. No details are available of the pond liner construction standard. One clay liner permeability test result is available and identifies a value of 2.1×10^{-8} m/sec. Routine maintenance and visual assessment is performed.

Risk assessment:

Consequence: Minor
Likelihood: Almost certain
Risk Rating: High

Regulatory controls:

- Condition 1.3.2, Table 1.3.2 requires the type and quantity of liquid waste accepted at the Premises to be limited to 400 tonnes and the main waste types generated in the facilities catchment (being waste from grease traps, septage wastes and possible car and truck wash waters). In addition no waste acceptance of liquid waste is authorised at the Premises after 30 June 2017 subject to the outcomes of improvement condition reference IR2.
- Condition 4.1.1 improvement conditions reference IR2 requires a liquid waste facility management plan to be submitted. Part (a) of the conditions requires information regarding the closure and remediation plans for the existing liquid waste ponds and part (b) requires detail of any additional management plans for the liquid waste facility which may include new or relined ponds.

Residual risk:

Consequence: Minor
Likelihood: Almost certain
Risk Rating: High

Supporting information for liquid waste facility seepage potential:
A desktop assessment of the McIntosh Road liquid waste facility (LWF) pond liner integrity was undertaken using available information. The information included liquid waste input data, an estimate of the pond sizes and meteorological data.

Following submission of and consultation regarding the document '*Assessment of McIntosh Road Liquid Waste Facility Pond Liner Integrity*' (Shire of Denmark, 4 April 2014), representatives of the Shire of Denmark subsequently undertook a site visit to verify the following pond measurements:

- Anaerobic pond: evaporation surface area: ~300 m^2 rainfall catchment: ~335 m^2
- Evaporation pond: surface area: ~180 m^2 rainfall catchment: ~208 m^2

Table 1: Liquid waste facility acceptance volumes (source controlled waste tracking forms).

Year	2009	2010	2011	2012	2013	2014	Average
Liquid waste (kL)	491	424	591	437	645	647.9	**539.3**

Desktop waste balance assessment:
Calculations for the desktop water balance assessment of the LWF pond capacity are detailed below. Note that annual average data was used, no monthly loading has been applied.

1) Meteorological data (*using Albany airport site 009741 annual average data*[1]):
- **a)** Annual rainfall: 797.8 mm
- **b)** Annual evaporation: 1423.5 mm

Note 1: Albany airport data is considered conservative, the Premises location is likely to experience higher annual rainfall and lower annual evaporation.

2) Pond inputs:
- **a)** Rainfall catchment: 543 m^2
- **b)** Rainfall input: 543 x 797.8 = 433.2 kL/ year
- **c)** Liquid waste: 2009→2014 data average = 539.3 kL/ year

3) Outputs:
- **a)** Evaporation surface: 480 m^2
- **b)** Evaporation output: ((300 x 0.75[#] + 180) x 1423.5 = 576.5 kL/ year

Note #: 75% correction factor applied for the anaerobic pond evaporation capacity

4) Water Balance:
Inputs (433 + 539.3) – Outputs (573.6) = +398.7 kL/ year

It is noted that the method used in this desktop assessment provides a simplified estimation, while in reality there is significant operational variability. When no correction factor is applied for the evaporation capacity of the anaerobic pond due to surface crust accumulation an excess input volume of 289 kL/ year is calculated. This indicates that without overflow of the ponds it is almost certain that liquid waste is seeping into the local groundwater.

Groundwater monitoring bore data assessment:
An assessment of reported groundwater monitoring bore data for the 2010 to 2014 period indicates that groundwater monitoring bore MB2 adjacent the northeast corner of the LWF has elevated levels of select contaminants compared to control bore MB1 and indicator bore MB3. No construction quality assurance documentation has been located for the existing bores, subsequently there is some uncertainty regarding the validity of the available data set as an indicator of potential groundwater contamination. Additional groundwater monitoring bores may be required to facilitate the groundwater contamination risk assessment.

Table 2: Liquid waste facility groundwater monitoring bore data (source Shire of Denmark, all values in mg/L).

Year	Bore	Total nitrogen	Ammonia	Potassium	Total phosphorus	Standing water level
2010	MB1 **MB2** MB3	3.5 **23** 6.0	0.02 **18** 4.6	0.9 **11.2** 4.5	No data available	No data available
2011	MB1 **MB2** MB3	3.7 **12 - 20** 2.7 - 6.8	0.01-0.03 **4.6 - 12** 0.34 - 2	0.7 - 1 **11.5 - 12.9** 2.5 - 3.3		
2012	MB1 **MB2** MB3	4.3 - 4.4 **30 - 40** 2 - 4.4	0.01 - 0.02 **11 - 40** 0.02 - 0.75	1 - 0.8 **13.9 - 17.4** 2.4 - 2.5		
2013	MB1 **MB2** MB3	4 **15 - 29** 0.87 - 1.4	0.01 - 0.05 **3.5 - 12.0** 0.01 - 0.2	0.9 - 1.0 **2.3 - 22.5** 2.2 - 2.8		
2014	MB1 **MB2** MB3	3.7 - 3.9 **40 - 42** 0.74 - 0.98	0.01 **28 - 35** 0.07 - 0.16	0.9 - 1.0 **30.0 - 30.9** 2.0 - 2.1	0.011 - 0.04 <0.010 <0.010	

Liquid waste pond integrity summary:
The desktop water balance assessment has found that inputs likely exceed the evaporation capacity of the pond by a factor of hundreds of kilolitres per year. No overflows have been reported during the assessment period. The groundwater data indicates a localised contaminant source with indicator bore MB2 having contaminants present up to 4000 times (ammonia data 2012) above the control bore values. The elevated levels of ammonia only seen in indicator bore MB2 samples are an indicator of contamination from septage. The hypothesis is that the integrity of the wastewater pond liners is compromised and that contaminants are seeping into the local groundwater.