



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Southern Metropolitan Regional Council

Licence: L7799/2001/8

Registered office: 9 Aldous Place
BOORAGOON WA 6154

Premises address: Regional Resource Recovery Centre
350 Bannister Road
CANNING VALE WA 6155
Being Lot 78 on Plan 2903 and Lot 77 on Plan 2903

Issue date: Thursday, 27 March 2014

Commencement date: Monday, 31 March 2014

Expiry date: Thursday, 30 March 2017

Amendment Date: Friday, 27 March 2015

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.

Decision Document prepared by: Melissa Faassen
Licensing Officer

Decision Document authorised by: Marko Pasalich
Manager Licensing



Contents

Decision Document	1
Contents	2
1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
4 Decision table	6
5 Advertisement and consultation table	9
6 Risk Assessment	10

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 type="checkbox"/>	
	Licence amendment <input checked="" type="checkbox"/>	
	Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	67A	109 200
	61A	52 000
Application verified	Date: N/A	
Application fee paid	Date: N/A	
Works Approval has been complied with	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Compliance Certificate received	Yes <input type="checkbox"/>	No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>
Commercial-in-confidence claim	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Commercial-in-confidence claim outcome		
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"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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"/>
Is the Premises within an Environmental Protection Policy (EPP) Area	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal and assessment

The Regional Resource Recovery Centre (RRRC) operated by the Southern Metropolitan Regional Council (SMRC) has been licensed under the *Environmental Protection Act 1986* since 2002 to operate a waste composting facility. The RRRC is located in the city of Canning within the Canning Vale industrial area. The premises is surrounded by a City of Canning Dog Pound, a Transperth Bus Depot and a Water Corporation Works Depot. The nearest sensitive human health receptors are located approximately 450 metres to the east of the premises, in the suburb of Leeming.

The RRRC accepts municipal and commercial putrescible waste for composting. Putrescible waste from municipal verge collection and commercial sources is tipped onto a tipping floor within a fully enclosed building. Large or dangerous items are removed before a front end loader pushes the material to feeders that take the waste to four segmented rotating digesters. Initial aerobic digestion occurs at about 55°C inside the digesters over approximately three days. Materials are then conveyed from the digesters to a primary screen and metals recovery area, while the non-metal coarse fraction is conveyed to landfill. The remaining material is matured in windrows and turned periodically in a fully enclosed aeration building for 4 to 6 weeks. The compost undergoes secondary screening to remove the remaining plastics and glass and is then stored in a load-out building before being transported off-site.

Greenwaste is received from commercial operators, householders and local government bulk greenwaste collection services. The fresh greenwaste is stored outside in a stockpile on a stabilised limestone hardstand before it is mulched by a shredder inside a shed. The greenwaste is continuously pushed up so the oldest is processed first. The mulch is stored inside the shredder shed until it is removed from site for use as mulch or further for off-site processing.

The main emission from the premises are odour and dust. Odour and dust emissions are minimised through the use of biofilters on the premises. Odorous air from the tipping building and digesters is directed through wet scrubbers to remove dust and humidify, before being discharged to the atmosphere through Biofilters 3 and 4. Odorous air from the aeration building is collected by a network of ducts and directed through humidifiers to Biofilters 1 and 2.

Historically the SMRC facility has been a cause of odour complaints in the Leeming area. The then Department of Environment and Conservation (DEC) issued an Environmental Protection Notice (EPN) in March 2009 requiring SMRC to investigate and resolve odour emission from its operations. In March 2012, the then DEC received numerous odour complaints from residents concerning unreasonable odour which was allegedly emanating from the premises.

In response to ongoing odour complaints from the community and technical issues from associated odour control equipment, on 30 March 2012, DEC issued a ten-week licence which required the RRRC to cease accepting household putrescible waste for composting from 14 April. The licence also required that the Licensee remove all compost generated using municipal putrescible waste from the site before the licence expired on 9 June 2012.

On 12 April 2012, SMRC applied for an amendment to its licence to allow receipt of waste pending an upgrade to the plant by 15 December 2012.

An amended licence was issued on 7 May, expiring on 30 March 2014, which included 21 new conditions, including the installation and commissioning of additional new odour treatment technology (wet scrubbers) by 15 December 2012.



On 22 February 2013, DEC received a copy of the Emission Test Report and Compliance Documentation from SMRC demonstrating that the equipment (wet scrubbers) had been built and was operating in accordance with its design parameters.

SMRC recommenced accepting waste at the RRRC for composting on 4 March 2013 with an initial volume of 200 tonnes per week, which progressively increased to 1,365 tonnes per week in the week ending 12 April 2013. SMRC operated at this capacity until 31 March 2014.

On 23 August 2013, DER received an application from SMRC requesting its licence be amended to increase throughput of waste for composting by 26.7% from 71,000 to 90,000 tonnes per annum. The original application was incomplete and SMRC was required to provide additional supporting information in order to demonstrate that the biofilter system was able to cope under high temperatures over the summer period. The new equipment was tested through the summer months and, after some adjustment to the scrubbers on two of the biofilters, operated satisfactorily.

On 27 March 2014, the Department of Environment Regulation (DER) issued a licence permitting an increase in throughput from 71,000 tonnes to 95,000 tonnes per year and limiting the monthly throughput to 8150 tonnes. The conditions of licence were appealed by SMRC and the licence was amended to incorporate the Ministers decision of 30 July 2014. The Ministers decision included allowing a monthly limit of 9000 tonnes.

Since the completion of upgrades and the installation of wet scrubbers, It has been demonstrated that humidification and temperature can be appropriately controlled in the biofilters particularly over the summer period.

This amendment is to remove the restrictions on waste acceptance. The amended license will permit the SMRC to operate to its capacity of 109,200 tonnes per year. This represents a 14.9% increase from its current capacity of 95,000 tonnes per year. The increase in throughput is not expected to have a significant impact on bio-filter emissions.



4 Decision table

All applications are assessed in line with 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	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	2	N/A	<p>SMRC was originally licensed with a throughput of 109,200 tonnes of putrescible waste per annual period. In May 2012 following significant public complaints the licence was amended to restrict the annual capacity and place a monthly limit on throughput. SMRC have now requested an amendment to reinstate the original design capacity of 109,200 tonnes and to remove the monthly limit.</p> <p>During this period SMRC was also required to undertake upgrades to the biofilter system which required the installation of a wet scrubber system to improve humidification. Improved electronic continuous monitoring for temperature and humidity of both in and outlets of the scrubber was undertaken.</p> <p>Operation <u>Emission Description</u> <i>Emission:</i> Odour emissions from putrescible waste stored and processed on site <i>Impact:</i> Unpleasant odours can cause nuisance and impact the amenity of nearby sensitive receptors. Offensive odours can cause emotional stress and physical symptoms in affected individuals. The nearest sensitive receptor is 450 metres to the east of the premises, in the suburb of Leeming. <i>Controls:</i> Odourous air from the tipping floor and each digester is captured and sent to biofilters 3 & 4, while odourous air from the aeration hall is captured and sent to biofilters 1 & 2. All four of these biofilters currently in place are designed to handle the maximum throughput based on the maximum airflow extraction</p>	<p>Application supporting documentation</p> <p>L7799/2001/8</p>

aeration will already take place, but rather they will receive a more sustained input as loads will be discharged both morning and night. The residence time for each load will not change and so the biofilter will maintain the same level of odour control.

All four biofilters are fitted with dedicated in line humidification vessels to ensure the inlet airstreams provide optimum conditions for the biofilters to achieve maximum odour treatment at all times. The system also involves automatic systems which continuously record inlet parameters and have alarm limits which significantly reduce the risk of human error.

The biofilters are maintained and managed in line with a Biofilter Management Plan (BMP). This plan outlines a variety of control measures such as monthly compliance testing, and refurbishment of biofilters every 2 to 4 years.

In the past 12 months SMRC have demonstrated that the licence odour limit of 500 odour units was never exceeded from biofilters 1 & 2, and was only exceeded 5 times from biofilters 3 & 4.

Risk Assessment

Consequence: Minor

Likelihood: Possible



DECISION TABLE				
Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p><i>Risk Rating: Moderate</i></p> <p><u>Regulatory Controls</u> Condition 2 limits the throughput to the production capacity of 109,200 tonnes to ensure that no waste is processed above the capacity that the biofilters can effectively operate.</p> <p>Other conditions already imposed on the licence relating to odour control include:</p> <ul style="list-style-type: none"> • Condition 9 ensuring that putrescible waste is fed into the digesters within 72 hours so that odours are captured in the biofilter system • Condition 17(a) – (c) placing odour unit limits, limits on biofilter humidity and temperature, and specifying management actions when the limits are not met. • Conditions 20-25 relating to odour control and operation of pollution control equipment • Conditions 38 – 39 requiring monitoring of biofilters <p><u>Residual Risk</u> <i>Consequence: Minor</i> <i>Likelihood: Unlikely</i> <i>Risk Rating: Moderate</i></p> <p>Condition 3 is removed as the increase to 109 200 tonnes over 12 months reflects the maximum operating capacity of the premises and so there is no need to limit monthly operations.</p>	
Biofilter Management	18	N/A	An updated version of the Biofilter Management Plan has been received and so the date has been updated to 1 January 2015.	Application Supporting Documentation



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