



Licence Number L8811/2014/1

Licence Holder Edna May Operations Pty Ltd

ACN 135 385 883

File Number: DER2014/000639-1

Premises Edna May Village Wastewater Treatment Plant
Lot 500 on Plan 58086
Wolfram Street
WESTONIA, WA 6437

Date of Report 5/02/2020

1. Definitions and interpretation

Definitions

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

Table 1: Definitions

Term	Definition
ACN	Australian Company Number
Amendment Report	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 JOONDALUP DC WA 6027 info@dwer.wa.gov.au
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
Licence Holder	Edna May Operations Pty Ltd
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Amendment Report applies, as specified at the front of this Amendment Report.
Revised Licence	the amended Licence issued under Part V, Division 3 of the EP Act, with changes that correspond to the assessment outlined in this Amendment Report.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>

2. Amendment Description

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

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Land Use Planning (February 2017)*
- *Guidance Statement: Licence Duration (August 2016)*
- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessment (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

Additional documents used to inform the decision are listed in Appendix 1.

2.1. Purpose and scope of assessment

DWER received an application for a licence (L8811/2014/1) amendment on 3 October 2019 to approve works in relation to the upgrade of the wastewater treatment plant (WWTP) from a submerged aerated filter (SAF) overflow system to a sequence batch reactor (SBR) overflow system. This includes modifying the system to convert the existing anaerobic, aeration and anoxic tanks to individual SBR units.

The application details that:

- the current WWTP is an Aquasol water recycle system which was installed in 2010 and upgraded in 2017;
- the proposed rearrangement will improve overall effluent quality in order to provide treated wastewater to the Shire of Westonia for reuse;
- the three reactors would batch twice daily every 12 hours;
- aeration is stopped for a period to allow settling in the tank;
- flocculant will be added to the inlet stream to aid in the settling process;
- the settling time is adjustable so that once enough aeration has occurred to achieve the biological targets;
- the settling time can be extended to create an anoxic or de-nitrification zone in the SBR's, lowering nitrogen levels in the effluent prior to discharge; and
- once the tank has settled the transfer pump will turn on and pump the clear water from the top of the tank straight into the existing clarifier.

Table 2 lists the documents and information provided with the amendment application and submitted as part of the assessment process.

Table 2: Licence amendments

Document/information description	Date received
Application form (amendment) signed by general manager of Edna May operations and attached supporting documentation	3 November 2019

The Delegated Officer considers that the the upgrade of the wastewater treatment plant (WWTP) from a submerged aerated filter (SAF) overflow system to a sequence batch reactor (SBR) overflow system will not increase the risk profile of the Premises. The Delegated Officer is also satisfied that the upgrade of the WWTP will result in an overall improved water quality that will have a beneficial end use and has therefore decided to grant the amendment.

The following amendments to the licence have been made:

- Licence condition 9 and Table 2 have been added to the Licence to detail the design and construction specifications for approved works at the premises. Further information relating to the assessment and decision-making in relation to this requirement is provided in Tables 6 and 7.
- Licence conditions 9 – 11 which relate to the certification of work approved under the licence; and
- Licence conditions 13 and 14 relate to the commissioning of the treatment plant.

2.2. CEO Initiated amendment

The CEO in applying the above requested amendment, issues a revised licence also consolidating changes made under Amendment Notice issued on 29 April 2016 (as detailed in the instrument log table below). The obligations of the Licensee have not changed in making this consolidating amendment. During the consolidation of the amendment notices, DWER has not undertaken any additional risk assessment of the Premises.

In applying the above requested amendment, The CEO has also

- updated the expiry date to align with the 2016 amended expiry date;
- updated the definitions in the Licence;
- updated the style and appearance of the Licence;
- updated the Licence conditions to reflect wording in current licence template. The word “Licensee” was removed from the licence and the word “Licence Holder” was added to the licence instead; and
- deleted the redundant AACR form set out in attachment 2 of the previous licence and advise the Licensee to obtain the form from the Department’s website.

3. Amendment history

Table 3 provides the amendment history for L8811/2014/1.

Table 3: Licence amendments

Instrument log		
Instrument	Issued	Description
L8811/2014/1	17/03/2014	Licence issued
L8811/2014/1	29/04/2016	Notice of Amendment: to extend the expiry date of the Licence
L8811/2014/1	6/02/2020	Amendment to approve works in relation to the upgrade of the wastewater treatment plant (WWTP) from a submerged aerated filter (SAF) overflow system to a sequence batch reactor (SBR) overflow system. The Amendment was granted in the form of a revised licence, including consolidation of amendment notice issued on 29 April 2016.

4. Location and receptors

Table 4 below lists the relevant sensitive land uses currently in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 4: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
Nearest Residence	Approximately 40m from the WWTP
The Westonia Caravan park	Approximately 90m from the WWTP
Edna May Accommodation Village	Adjacent to the WWTP
Westonia oval	Approximately 280m from the WWTP

Table 5 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 5: Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Lake Mount Brown	Approximately 50 km from the WWTP
Groundwater	Depth to groundwater encountered at approximately 28m to 40m below ground level

5. Risk assessment

Tables 6 and 7 below describes the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. This table identifies whether the emissions present a material risk to public health or the environment and outlines relevant regulatory controls.

Table 6: Risk assessment for proposed amendment during construction

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Construction, mobilisation and positioning of infrastructure	Dust	Air/windborne pathway causing impacts to health and amenity of closest human receptors. Residential premises, Westonia Caravan Park and Edna May accommodation village in close proximity.	According to the Licence holder the installation works will be carried out inside the tanks.	Minimal onsite impact Specific Consequence Criteria (for environment) met Slight	The risk event will probably not occur in most circumstances Unlikely	Low	The Delegated Officer considers that minor construction works (equipment placement) are not expected to generate significant dust emissions and is satisfied that the risk event will be adequately managed.	The Delegated Officer considers that the provisions of section 49 of the EP Act is sufficient to regulate dust emissions during construction.
	Noise		According to the Licence holder the installation works will be carried out inside the tank.				The Delegated Officer has considered that human receptors will not be significantly impacted by noise emissions Noise regulations apply	The Delegated Officer considers that any noise impacts that may arise can be regulated under the provisions of the Noise Regulations.

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

Table 7: Risk assessment for proposed amendment during operation

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
Cat 54: WWTP	Odour from storage and treatment of sewage	Air/windborne pathway causing impacts to health and amenity of closest human receptors. Residential premises, Westonia Caravan Park and Edna May accommodation village in close proximity.	According to the Licence holder noise emission is not expected to have a significant impact as unit is enclosed within a container.	Minimal onsite impact Specific Consequence Criteria (for environment) met Slight	The risk event will probably not occur in most circumstances Unlikely	Low	The Delegated Officer considers that normal bioreactor performance is related to a low smell nuisance is aware that the unit is enclosed within a container and therefore, is satisfied that the Risk Event will be adequately managed.	Existing Licence Condition 4 which relates to operating and maintaining the premises in accordance with manufacturer's specifications. The Delegated Officer also considers that the provisions of section 49 of the EP Act is sufficient to regulate odour during operation.

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
	Rupture of pipes / overtopping of holding tanks resulting in sewage discharge to land	Overland flow, seepage and groundwater discharge resulting in soil contamination, reduction in groundwater quality and impacting upon dependent vegetation	Arrange for operator training, alarm systems in place, all pipelines will be HDPE with welded joints. Also there will be 3 sequential batch reactor tanks and two will batch daily. Current flow predicted to be around 30m ³ /day and the WWTP plant is designed to treat 55m ³ /day	Based on the information detailed above and distance to the nearest sensitive receptors and the wastewater will undergo treatment prior to discharge, the impact of WWTP pipe rupture, tank failure and the irrigation of treated wastewater will result in low level on-site impacts. Therefore, the consequence is minor .	Based upon the materials used and controls that will be in place, the risk event may only occur in exceptional circumstances. Therefore, the likelihood of the consequence is rare .	Low.	The Delegated Officer has determined that the WWTP will have contingency for storage capacity should an emergency arise.	The Delegated Officer also considers that the provisions of section 72 of the EP Act is sufficient to regulate discharges as a result of an emergency.

Risk Event				Consequence rating ¹	Likelihood rating ¹	Risk ¹	Reasoning	Regulatory controls (refer to conditions of the granted instrument)
Source/Activities*	Potential emissions	Potential receptors, pathway and impact	Applicant controls					
	Storage of chemicals	Breach of containment causing chlorine discharge to land	20 L drums of chlorine are stored onsite at the mine. Choline is only taken to the WWTP when required. The drums are stored on hardstand areas at the WWTP.	Minimal onsite impact Specific Consequence Criteria (for environment) met Slight	The risk event will probably not occur in most circumstances Unlikely	Low	The entire WWTP is built on hardstand ground. Small volumes of liquid chlorine (sodium hypochlorite) will be stored within a dedicated self bunded area.	The Delegated Officer also considers that the provisions of section 72 of the EP Act is sufficient to regulate discharges as a result of an emergency.
	Failure of disinfection system. Treated wastewater containing harmful pathogens	Human receptors at the WWTP facility coming in contact with the treated wastewater. Direct contact and ingestion of harmful pathogens. Pathogens in the wastewater may cause gastroenteritis, spread disease or create other public health impacts.	Introduce testing regime to determine acceptability of effluent for offsite reuse.	NA	NA	NA	The Delegated Officer has reviewed the Department of Health approval and considers it appropriate for the regulation of public health impacts.	The Department of Health regulates public health impacts from the wastewater scheme

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

6. Conclusion

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

6.1. Summary of amendments

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

Table 7 Licence amendments

Condition No.	Proposed amendments
NA	Updated the format and appearance of the Licence.
Front page	Updated the expiry date to align with the 2016 amended expiry date.
Definitions	Definitions updated to reflect department name changes and add some new definitions.
1 – 8	Licence conditions updated to reflect wording in current licence template. The word "Licensee" has been removed and the word "licence holder" was added instead to the licence.
Licence condition 9 and Table 2	Added to the Licence to detail the design and construction specifications for approved works at the premises. Further information relating to the assessment and decision-making in relation to this requirement is provided in Tables 6 and 7.
9 – 11	Relate to the certification of work approved under the licence added to the licence.
13	Added to the licence. Relates to achieving the proposed wastewater quality.
Schedule 1	WWTP layout plan added to the licence
Attachment 1	Deleted the redundant AACR form.

6.2. Licence Holder comments

The Licence Holder was provided with the draft Amendment Report on 17 January 2020 for review and comment. The Licence Holder advised on 21 January 2020 that they have no further comments on the draft amendment and waived the remaining consultation period.

STEPHEN CHECKER
MANAGER WASTE INDUSTRIES
REGULATORY SERVICES

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

Appendix 1: Key documents

	Document title	In text ref	Availability
1.	Licence L8811/2014/1	L8811/2014/1	Accessed at www.dwer.wa.gov.au
2.	Category 54 Licence amendment application form signed by general manager of Edna May operations and attached supporting documentation	Licence amendment application	DWER record (DWERDT208708)
3.	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	DER 2015a	Accessed at www.dwer.wa.gov.au
4.	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
5.	DER, May 2016. <i>Guidance Statement: Publication of Annual Audit Compliance Reports</i> . Department of Environment Regulation, Perth.	DER 2016a	
6.	DER, August 2016. <i>Guidance Statement: Licence duration</i> . Department of Environment Regulation, Perth.	DER 2016b	
7.	DER, September 2016. <i>Guidance Statement: Environmental Standards</i> . Department of Environment Regulation, Perth.	DER 2016c	
8.	DER, November 2016. <i>Guidance Statement: Environmental Siting</i> . Department of Environment Regulation, Perth.	DER 2016d	
9.	DER, February 2017. <i>Guidance Statement: Land Use Planning</i> . Department of Environment Regulation, Perth.	DER 2017a	
10.	DER, February 2017. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2017b	
11.	DWER, June 2019. <i>Guideline: Decision Making</i> . Department of Water and Environmental Regulation, Perth.	DWER 2019a	
12.	DWER, June 2019. <i>Guideline: Industry Regulation Guide to Licensing</i> . Department of Water and Environmental Regulation, Perth.	DWER 2019b	
13.	DWER, June 2019. <i>Guideline: Odour emissions</i> . Department of Water and Environmental Regulation, Perth.	DWER 2019c	