



# Works Approval

## *Environmental Protection Act 1986, Part V*

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**Works Approval Holder:** Water Corporation

**Works Approval Number:** W6182/2018/1

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**Registered office:** Water Corporation  
629 Newcastle street  
LEEDERVILLE WA 6007

**Premises address:** Beenyup Wastewater Treatment Plant  
Ocean Reef Road  
CRAIGIE WA 6025  
Being Lot 8278 on Plan 30778

**Issue date:** 14 January 2019

**Commencement date:** 16 January 2019

**Expiry date:** 15 January 2022

The following category/s from the *Environmental Protection Regulations 1987* cause this Premises to be a prescribed premises for the purposes of the *Environmental Protection Act 1986*:

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
54	Sewage facility; premises on which sewage is treated (excluding septic tanks); or from which treated sewage is discharged onto land or into waters.	100 m <sup>3</sup> or more per day	135 ML/day

### Conditions

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

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

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# Works Approval Conditions

## 1 General

### 1.1 Interpretation

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

1.1.2 In the Works Approval, unless the contrary intention appears:

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

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

**'CEO'** means Chief Executive Officer of the Department of Water and Environmental Regulation;

**'CEO'** for the purpose of correspondence means;

Director General  
Department Administering the *Environmental Protection Act 1986*  
Locked Bag 33 Cloisters Square  
PERTH WA 6850  
[info@dwer.wa.gov.au](mailto:info@dwer.wa.gov.au);

**'code of practice for the storage and handling of dangerous goods'** means document titled "Storage and handling of dangerous goods: Code of Practice" published by the Department of Mines and Petroleum, as amended from time to time;

**'Commissioning'** means the process of operation and testing that verifies the works and all relevant systems, plant, machinery and equipment have been installed and are performing in accordance with the design specification set out in the works approval application;

**'dangerous goods'** has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;

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

**'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;

**'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;

**'NOx'** means oxides of nitrogen, calculated as the sum of nitric oxide and nitrogen dioxide and expressed as nitrogen dioxide;



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

**'Schedule 1'** means Schedule 1 of this Works Approval unless otherwise stated;

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

**'stack test'** means a discrete set of samples taken over a representative period at normal operating conditions;

**'STP dry'** means standard temperature and pressure (0°Celsius and 101.325 kilopascals respectively), dry;

**'USEPA'** means United States (of America) Environmental Protection Agency;

**'Works Approval'** means this Works Approval numbered W5809/2015/1 and issued under the Act;

**'Works Approval Holder'** means the person or organisation named as the Works Approval Holder on page 1 of the Works Approval;

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

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

**1.2 General conditions**

1.2.1 The Works Approval Holder shall construct the works in accordance with the documentation detailed in Table 1.2.1:

<b>Table 1.2.1: Construction Requirements<sup>1</sup></b>		
<b>Document</b>	<b>Parts</b>	<b>Date of Document</b>
Works Approval Application Form Beenyup WWTP: Energy Recovery Facility	All	12 October 2018
CS00005 – Beenyup Wastewater Treatment Plant Energy Recovery Facility Works Approval Supporting Information (Document Reference #20070798)	All	12 October 2018
Water Corporation Energy Recovery Facility Environmental Noise Assessment, Beenyup, Herring Storer Acoustics	All	January 2015

Note 1: Where the details and commitments of the documents listed in condition 1.2.1 are inconsistent with any other condition of this works approval, the conditions of this works approval shall prevail.

1.2.2 The Works Approval Holder, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the Code of Practice for the Storage and handling of dangerous goods.

1.2.3 The Works Approval Holder shall commission the Beenyup Energy Recovery Facility for a period not exceeding 6 months.



### 1.3 Premises operation

There are no specified conditions relating to Premises operation in this section.

## 2 Emissions

### 2.1 Point source emissions to air

2.1.1 The Works Approval Holder shall record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of section 2 or 3 of this Works Approval.

2.1.2 The Works Approval Holder shall ensure that where waste is emitted to air from the emission points in Table 2.1.1 it is done so in accordance with the conditions of this Works Approval.

Table 2.1.1: Emission points to air			
Emission point reference	Emission Point	Emission point height (m)	Source, including any abatement
A1 - Gas engine exhaust tapping point, post muffler	Gas engine stack	Approximately 3m above ground level	Biogas combustion engines 1 and 2.

2.1.3 The Works Approval Holder shall target point source emissions to air at or below the levels specified in Table 2.1.2

Table 2.1.2: Point source emission target to air			
Emission point Reference	Parameter	Target (including units) <sup>1</sup>	Averaging period
A1	Nitrogen oxides, total	500 mg/m <sup>3</sup>	Stack test (30 minute average)

Note 1: All units are referenced to STP dry

### 2.2 Fugitive emissions

2.2.1 The Works Approval Holder shall use all reasonable and practical measures to prevent and where that is not practicable to minimise dust emissions from the Premises.

### 2.3 Noise

2.3.1 The Works Approval Holder shall construct the noise barrier associated with the 2 gas engines in accordance with Water Corporation Energy Recovery Facility Environmental Noise Assessment, Beenyup, Herring Storer Acoustics, January 2015.



### 3 Monitoring

- 3.1.1 The Works Approval Holder shall ensure that all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.
- 3.1.2 The Works Approval Holder shall undertake the monitoring specified in Table 3.1.1 during the commissioning period.

Emission point reference	Parameter	Units <sup>1</sup>	Averaging period	Frequency <sup>2</sup>	Method
A1 - Gas engine exhaust tapping point, post muffler	Volumetric flow rate	m <sup>3</sup> /s	n/a	Continuous	USEPA Method 2
	Nitrogen oxides, total	mg/m <sup>3</sup>	30 min	Fortnightly during proof of running	USEPA Method 7E or 7D

Note 1: All units are referenced to STP dry

Note 2: Monitoring shall be undertaken to reflect normal operating conditions and any limits or conditions on inputs or production.

- 3.1.3 The Works Approval Holder shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this works approval is calibrated in accordance with the manufacturer’s specifications.
- 3.1.4 The Works Approval Holder shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

### 4 Improvements

There are no specified conditions relating to improvements in this section.

### 5 Information

#### 5.1 Reporting

- 5.1.1 The Works Approval Holder shall submit a compliance document to the CEO, following the construction of the works and prior to commissioning of the same.
- 5.1.2 The compliance document shall:
  - (a) certify that the works were constructed in accordance with the conditions of the works approval;
  - (b) be signed by a person authorised to represent the Works Approval Holder and contain the printed name and position of that person within the company.
- 5.1.3 The Works Approval Holder shall submit a commissioning report for the Beenyp Energy Recovery Facility, to the CEO within one month of the completion of commissioning.
- 5.1.4 The Works Approval Holder shall ensure the report includes;
  - (a) a summary of the monitoring results recorded under condition 3.1.2;
  - (b) a list of any original monitoring reports submitted to the Works Approval Holder from third parties for the commissioning period;



- (c) a summary of the environmental performance of the Beenyup Energy Recovery Facility as installed, against the design specification set out in the works approval application;
- (d) a review of performance against the works approval conditions; and
- (e) where they have not been met, measures proposed to meet the design specification and/or works approval conditions, together with timescales for implementing the proposed measures if required.

## 5.2 Notification

5.2.1 The Works Approval Holder shall ensure that the parameters listed in Table 5.2.1 are notified to the CEO and are in accordance with the notification requirements of the table.

<b>Table 5.2.1: Notification requirements</b>			
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Notification requirement</b>	<b>Format or form</b>
1.2.3	Commencement of commissioning	7 days prior to start	None specified
	Completion of commissioning	7 days after completion	



## Schedule 1: Maps

### Premises map

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

### BeenyupWWTP





### Overall ERF process flow diagram

