

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Wessex Water Enterprises Limited
Trowbridge Bioresources Centre
Off Bradford Road
Trowbridge
Wiltshire
BA14 9AX

Variation application number

EPR/HB3602TR/V003

Permit number

EPR/HB3602TR

Trowbridge Bioresources Centre

Permit number EPR/HB3602TR

Introductory note

This introductory note does not form a part of the permit

The Industrial Emissions Directive (IED) came into force on 7 January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) Conclusions as described in the Commission Implementing Decision. The schedule of waste management activities includes the recovery of non-hazardous waste with a capacity exceeding 75 tonnes per day (or 100 tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment, but excludes activities covered by the Urban Waste Water Treatment Regulations (UWWTR). However, UK environmental regulators concluded that the biological treatment of waste sewage sludge is not an activity covered by the UWWTR and is therefore within the scope of the IED. The BAT Conclusions for Waste Treatment (the BREF) was published on 17 August 2018 following a European Union wide review of BAT, implementing decision (EU) 2018/1147 of 10 August 2018. BAT applies to new waste sewage sludge treatment not covered by the UWWTR. The operations at Trowbridge Bioresources Centre are existing but will now be permitted as an installation and will be required to operate using BAT.

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

Changes introduced by this variation

The following notice varies the environmental permit EPR/HB3602TR, previously issued as a bespoke waste permit for the combustion of biogas in one combined heat and power (CHP) engine, two boilers, two flares, biogas holder and a biogas upgrading plant. The CHP, boilers, flares and biogas upgrading plant are to be added to the permit as directly associated activities (DAAs) for a listed activity which is part of a multi-operator installation. The other part of the installation is operated by Wessex Water Services Limited under permit EPR/BB3934AG which forms the stationary technical unit to this permit.

Brief description of the process

The variation includes the addition of an existing combined heat and power (CHP) engine, two boilers, an emergency flare, a biogas holder and a gas upgrading plant including the G2G biomethane flare previously operated under a bespoke waste operation permit as a directly associated activity (DAA) of the Section 5.4 Part A (1)(b)(i) activity carried out on the Trowbridge Bioresources Centre permit EPR/BB3934AG. The CHP engine and two boilers take biogas produced in the digesters authorised on permit EPR/BB3934AG for use as a fuel. The CHP is classed as an existing medium combustion plant (MCP) between 1 and 5 MWth fuelled on biogas (emission point A11).

Biogas is transferred from the digesters authorised on permit EPR/BB3934AG into the biogas holder for storage. From here the biogas exits through a dehumidifier chiller to remove moisture from the biogas. The pipeline is fitted with condensate pots capturing further moisture from the generated biogas. Condensate discharges produced from gas condensate traps on the biogas lines will be routed to the site drainage system to Trowbridge Water Recycling Centre (WRC) via the wider installation drainage (EPR/BB3934AG) at emission transfer point T5. The gas holder is fitted with a pressure release valve to ensure the system avoids over pressurisation.

Biogas produced in the AD process can be combusted in the combined heat and power (CHP) engine with a thermal input of 4.5MWth, and two auxiliary boilers (fuelled on biogas and natural gas) with a thermal input of 0.75MWth each which provide heat for the digesters. All three combustion assets have separate stacks which are located next to each other at emission points A8a, A8b and A11. The flare waste gas burner (emission point A1) is used in emergencies when the biogas holder reaches a set level of biogas capacity.

Biogas is predominantly utilised by the gas to grid plant (exhaust port stack - emission point A16). The gas to grid plant is comprised of the gas upgrading plant, a biomethane flare, a grid entry unit and three propane tanks. The gas to grid plant's primary function is to convert incoming biogas into biomethane. If the biogas does not meet the required standards or the gas to grid plant fails, then biogas is combusted in the CHP engine and boilers which generates electricity and heat that is used on site. Biogas is compressed and then cooled by a heat exchanger before entering the bottom of an absorption column where it meets a counter current of process water wash water. The resultant 'used' water passes through a flash column, where the methane is 'flushed' out through the process of reducing the pressure. The resultant gas is vented through the top of the column for recycling to the absorption column via the gas compression stage. Water from the flash column is fed into the top of the a desorption column filled with plastic media where it meets a counter current of air blown in from the bottom of the column to desorb CO² and separate it from the water. The cleaned water is collected at the bottom of the column for re-use. The air and CO₂ waste gas stream is channeled to the atmosphere via an air abatement system (emission point A16). Biomethane vented from the top of the absorption column passes through an adsorption drier stage to remove water from the gas. The dried biomethane (under pressure) passes onto a carbon odour control unit stage of the process to remove impurities such as siloxanes before introduction into the grid entry unit.

The grid entry unit accepts gas from the gas upgrading plant at which point propane is added from the propane tanks to control the calorific value of the gas prior to export to the distribution network. The biomethane flare is utilised in emergencies in the event that the gas is rejected from the gas distribution network or upon startup of the plant whilst stabilising the biomethane for ready for export.

The status log of the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPR/CB3000TJ/A001	Duly made 07/08/2014	Application for standard rules (SR2009 No 4) permit.
Permit determined EPR/CB3000TJ	10/09/2014	Original permit issued to Wessex Water Services Limited.
Transfer determined EPR/HB3602TR	17/07/2019	Permit transferred from Wessex Water Services Limited to Wessex Water Enterprises Limited.
Application EPR/HB3602TR/V002	Duly made 16/08/2019	Application to vary vary the permit to bespoke conditions.
Variation determined EPR/HB3602TR	01/11/2019	Varied permit issued.
Application EPR/HB3602TR/A001	Duly made 12/09/2024	Application for an anaerobic digestion facility with combustion of biogas at a waste sewage sludge treatment site.
Additional Information provided in response to a Schedule 5 notice	19/11/2024	Response to Schedule 5 notice requesting information in relation to BAT, Odour control measures, EWC codes and emissions.
Permit determined	29/01/2025	Permit issued to Wessex Water Enterprises Limited.

Other Part A installation permits relating to this installation		
Operator	Permit number	Date of issue
Wessex Water Services Limited	EPR/BB3934AG	29/01/2025

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies and consolidates

Permit number

EPR/HB3602TR

Issued to

Wessex Water Enterprises Limited (“the operator”)

whose registered office is

**Wessex Water Operations Centre
Claverton Down Road
Claverton Down
Bath
BA2 7WW**

company registration number 02279151

to operate an installation at

**Trowbridge Bioresources Centre
Off Bradford Road
Trowbridge
Wiltshire
BA14 9AX**

to the extent set out in the schedules.

The notice shall take effect from 29/01/2025

Name	Date
Rebecca Warren	29/01/2025

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit as a result of the application made by the operator.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/HB3602TR

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

Wessex Water Enterprises Limited (“the operator”),

whose registered office is

Wessex Water Operations Centre

Claverton Down Road

Claverton Down

Bath

BA2 7WW

company registration number 02279151

to operate an installation at

Trowbridge Bioresources Centre

Off Bradford Road

Trowbridge

Wiltshire

BA14 9AX

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Rebecca Warren	29/01/2025

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Energy efficiency

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

- (a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;
- (b) maintain records of raw materials and water used in the activities;
- (c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and
- (d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
- (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
- (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

1.5 Multiple operator installations

- 1.5.1 Where the operator notifies the Environment Agency under condition 4.3.1 (a) or 4.3.1 (c), the operator shall also notify without delay the other operator(s) of the installation of the same information.

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the “activities”).
- 2.1.2 The activities shall be undertaken in accordance with best available techniques.
- 2.1.3 All process plant and equipment shall be commissioned, operated and maintained and shall be fully documented and recorded in accordance with the manufacturer’s recommendations.

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in blue on site plan 2 at schedule 7 to this permit, which is within the area edged in green on the site plan that represents the extent of the installation covered by this permit and that/those of the other operator of the installation.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:
- (a) the nature of the process producing the waste;
 - (b) the composition of the waste;
 - (c) the handling requirements of the waste;
 - (d) the hazardous property associated with the waste, if applicable; and
 - (e) the waste code of the waste.
- 2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.
- 2.3.6 For the following activities referenced in schedule 1, table S1.1 (AR1):

- (a) each MCP must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this.
- (b) the operator must keep periods of start-up and shut-down of the combustion plant as short as possible.
- (c) there shall be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993.

2.4 Improvement programme

- 2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.
- 2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour, but including ammonia) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
 - (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
- 3.2.4 The operator shall implement a leak detection and repair (LDAR) programme to detect and mitigate the release of volatile organic compounds, including methane from diffuse sources.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used

appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.4 Noise and vibration

- 3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.
- 3.4.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
 - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1 and S3.2;
 - (b) process monitoring specified in tables S3.3 and S3.4;
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.
- 3.5.5 For the following activities referenced in Schedule 1 Table S1.1 (AR1):
- (a) For existing MCP, monitoring measurements shall be carried out before the relevant compliance date or within four months of the issue date of the permit whichever is the later.
 - (b) In the case of new medium combustion plant, the first monitoring measurements shall be carried out within four months of the issue date of the permit or the date when the MCP is first put into operation, whichever is later.
- 3.5.6 Monitoring of MCP shall not take place during periods of start up or shut down.

3.6 Pests

- 3.6.1 The activities shall not give rise to the presence of pests which are likely to cause pollution, hazard or annoyance outside the boundary of the site. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved pests management plan, have been taken to prevent or where that is not practicable, to minimise the presence of pests on the site.

3.6.2 The operator shall:

- (a) only use approved products for pest control;
- (b) treat pest infestations promptly;
- (c) reject pest-infected incoming waste;
- (d) if notified by the Environment Agency, submit to the Environment Agency for approval within the period specified, a pests management plan which identifies and minimises risks of pollution from pests;
- (e) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.7 Fire prevention

3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.

3.7.2 The operator shall:

- (a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
- (b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.7.3 The operator shall undertake a DSEAR assessment and maintain an accident management plan.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and
- (d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.1.3 The operator shall maintain a record of the type and quantity of fuel used and the total annual hours of operation of each MCP.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production/treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.6 The operator shall keep records of non-waste materials leaving the site, including the type of material, the batch number, the date of export off-site and the tonnage exported on that date. These records shall be maintained for at least 2 years.
- 4.2.7 The operator shall submit an annual report detailing the efficiency of removal of non-digestible materials from feedstock prior to processing and the level of contamination in the final recovered digestate.

4.3 Notifications

- 4.3.1 In the event:
- (a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—
 - (i) inform the Environment Agency,
 - (ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and
 - (iii) take the measures necessary to prevent further possible incidents or accidents;
 - (b) of a breach of any permit condition the operator must immediately—
 - (i) inform the Environment Agency, and
 - (ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;
 - (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must

immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

- 4.3.2 Any information provided under condition 4.3.1 (a)(i), or 4.3.1 (b)(i) where the information relates to the breach of a limit specified in the permit, shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.
- 4.3.3 Following the detection of an issue listed in condition 4.3.1, the operator shall review and revise the management system and implement any changes as necessary to minimise the risk of re-occurrence of the issue.
- 4.3.4 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.
- 4.3.5 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:
- Where the operator is a registered company:
- (a) any change in the operator's trading name, registered name or registered office address; and
 - (b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.
- Where the operator is a corporate body other than a registered company:
- (a) any change in the operator's name or address; and
 - (b) any steps taken with a view to the dissolution of the operator.
- In any other case:
- (a) the death of any of the named operators (where the operator consists of more than one named individual);
 - (b) any change in the operator's name(s) or address(es); and
 - (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.
- 4.3.6 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:
- (a) the Environment Agency shall be notified at least 14 days before making the change; and
 - (b) the notification shall contain a description of the proposed change in operation.
- 4.3.7 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.
- 4.3.8 The operator shall notify the Environment Agency as soon as is practicable, in writing of any change of medium combustion plant.

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.
- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
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Directly Associated Activity			
AR1	Steam and electrical power supply	R1: Use principally as a fuel to generate energy	<p>Undertaken in relation to Activity AR1 of Permit EPR/BB3934AG.</p> <p>From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion gases.</p> <p>Combustion of biogas in one combined heat and power (CHP) engine with a thermal input of 4.5MWth. Operated in the event the gas to grid plant is unavailable.</p> <p>Combustion of biogas and natural gas in two auxiliary boilers with an aggregated thermal input of 1.5MWth.</p>
AR2	Emergency flare operation	D10: Incineration on land	<p>Undertaken in relation to Activity AR1 of Permit EPR/BB3934AG.</p> <p>From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases.</p> <p>There shall be no venting or flaring of gas for disposal.</p> <p>Use of one auxiliary flare required only during periods of breakdown or maintenance of the CHP engines, biogas upgrading plant and/or auxiliary boilers.</p> <p>Use of one G2G biomethane flare required only during periods where biomethane cannot be injected into the National Grid or diverted to CHP/boilers.</p>
AR3	Gas upgrading	Upgrading of biogas to biomethane (including the removal of moisture and other substances such as carbon dioxide,	<p>Undertaken in relation to Activity AR1 of Permit EPR/BB3934AG.</p> <p>From the receipt of biogas produced at the on-site anaerobic digestion process to</p>

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
		hydrogen sulphide and Volatile organic compounds) for injection into the National Grid.	injection into the National Grid. This includes return of off-specification biogas for combustion to the on-site CHP engine, auxiliary boilers and/or emergency flares.
AR4	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, propane, ferric chloride, activated carbon, diesel.	From the receipt of raw materials to despatch for use within the facility.
AR5	Gas storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity AR1 of Permit EPR/BB3934AG. Storage of biogas produced from on-site anaerobic digestion of permitted waste in one stand-alone biogas holder. From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility. Emissions of unburnt biogas shall be minimised.
AR6	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water	From collection to discharge into the wider installation boundary (EPR/BB3934AG) prior to discharge into Trowbridge Water Recycling Centre (WRC)
AR7	Transfer of untreated effluent	Discharge of boiler blowdown water and biogas condensate	From collection to discharge into the wider installation boundary (EPR/BB3934AG) prior to discharge into Trowbridge Water Recycling Centre (WRC)
AR8	Air abatement	Collection and treatment of air from the buildings or plant using abatement system – [carbon filter] prior to release to atmosphere.	From the collection of air from site processes to treatment and release of treated air to atmosphere. Collection and treatment of air from the buildings, tanks or plant using abatement system – [Gas upgrading plant OCU (A16) 1x carbon filter]

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/HB3602TR/V003	Response to section 3a – technical standards, Part C3 of the application form site condition report (version 1 – June 2021), environmental risk assessment (version 1 - June 2021), noise and vibration risk assessment (AC001 – June 2021), energy management plan (version 1 - June 2021) Figure 5 - site location plan, (located within main document titled 'Trowbridge BC permit variation application compiled' – version 1 - June 2021), accident prevention and management plan (issue 2 – June 2021) Best available techniques as described in the BAT Reference Document for Waste Treatment (the BREF) and BAT conclusions.	21/07/2021
Additional information	Trowbridge BC drainage plan (Issue 2 – Oct 2022), Trowbridge process description (Sept 2023), fugitive emissions leak detection & repair plan (issue 1 – Aug 2023), LDAR Trowbridge appendices TRTW551, digestion process monitoring description (issue 1 – Oct 2023) and residues management plan TRTW550 (issue 1 – Sept 2023)	06/10/2023
Response to a request for further information dated 09/08/2024	Weseex Water Enterprises Limited EMS summary (version 1 – Aug 2024) and environment monitoring programme (version 1 – Aug 2024)	30/08/2024
	Application form C6 – additional responses (Aug 2024), D14219 Trowbridge plans pack approved (issue 1 – Aug 2024), air emissions risk assessment (issue 3/version 5 – Sept 2024) and Visio-Trowbridge BC sludge process flow diagram (version 2 – Sept 2024)	06/09/2024
Response to Schedule 5 Notice dated 22/10/2024	Trowbridge: gas to grid (g2g) odour management plan GENECO070 (version 3 – Nov 2024) and Transfer of indirect discharges to water risk assessment (version 1 – Nov 2024) Responses to questions 1 and 2 detailing drainage arrangements, question 4 detailing PVRVs and questions 5 and 6 detailing commitments to monitoring	19/11/2024

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
Improvement conditions for biogas upgrading plant		
IC11a	The operator shall carry out a monitoring study to verify the assumptions made in the application in relation to the releases of pollutants to air. The study shall include the monitoring of point source releases to air from the biogas upgrading plant emission A16 during normal operation, having regard to the Environment Agency technical guidance, <i>Monitoring stack emissions: environmental permits</i> and to MCERTS standards. As a minimum, two separate monitoring campaigns in a year shall be completed (one monitoring survey six months following commissioning of the biogas upgrading plant). The pollutants to be monitored shall include:	Within 6 months of permit issue or such other date as agreed in writing with the Environment Agency

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<ul style="list-style-type: none"> • Total volatile organic compounds. • Hydrogen sulphide. 	
IC11b	<p>Following the completion of IC11a, the operator shall undertake an emissions impact assessment of point source releases to air from point A16 using the information obtained through the emissions monitoring. The emissions impact assessment report and all associated monitoring reports and assessments shall be submitted in writing to the Environment Agency for review.</p> <p>The emissions impact assessment shall, as a minimum, include:</p> <ul style="list-style-type: none"> • Reports showing details of the monitoring undertaken and the results obtained. • Results of the assessment of long and short-term impacts from the emissions in accordance with Environment Agency Guidance – Air emissions risk assessment for your environmental permit. • A completed H1 assessment software tool. <p>If the H1 assessment shows potential long or short-term impacts from the emissions, the operator shall propose an action plan to reduce the impacts of the substances identified.</p>	Within 6 months of completion of IC11a or such other date as agreed in writing with the Environment Agency
Improvement condition to address methane slip emissions from gas engines burning biogas		
IC12	<p>The operator shall submit a written plan for approval by the Environment Agency which establishes the methane emissions in the exhaust gas from engines burning biogas and or biomethane and compare these to the manufacturer's specification and benchmark levels.</p> <p>The plan shall develop proposals to assess the potential for methane slip and take corrective actions where emissions of methane above the manufacturer's specification are identified.</p> <p>The operator shall establish methane emissions in the exhaust gas and methane slip using the following standards:</p> <ul style="list-style-type: none"> • EN ISO 25139 • EN ISO 25140 	Within 6 months of permit issue or as such other agreed in writing with the Environment Agency
Improvement condition for review of effectiveness of abatement plant		
IC13	<p>The operator shall carry out a review of the gas upgrading plant OCU (emission point A16) on site, to determine whether the measures have been effective and adequate to prevent, or where this is not possible to minimise, emissions released to air (including but not limited to odour and ammonia, Hydrogen chloride (HCl), and TVOC).</p>	Within 6 months of permit issue or such other date as agreed in writing with

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<p>The operator shall submit a written report to the Environment Agency following this review for assessment and approval.</p> <p>The report shall include but not be limited to the following aspects:</p> <ul style="list-style-type: none"> • Full investigation and characterisation of the waste gas streams. • Evidence that the emission of pollutants in the waste gas stream is being prevented or where this is not possible minimised by the abatement plant. • Abatement stack monitoring results (including but not limited to odour and ammonia, Hydrogen chloride (HCl), and TVOC). • Abatement process monitoring results (including but not limited to odour and ammonia , Hydrogen chloride (HCl), and TVOC). • Details of air quality quantitative impact assessment including modelling and a proposal for site-specific “action levels” (including but not limited to odour concentration, hydrogen sulphide and ammonia) , Hydrogen chloride (HCl), and TVOC). • Odour monitoring results at the site boundary. • Records of odour complaints and odour related incidents. • Recommendations for improvement including the replacement or upgrading of the abatement plant. • Timescales for implementation of improvements to the abatement plant. <p>The operator shall implement any improvements in line with the timescales as approved by the Environment Agency.</p> <p>(Note that approval of reports under this improvement condition does not preclude the need for permit variation applications to implement the improvements identified in the report. Any variation may include the insertion of necessary emission limit values).</p>	the Environment Agency
Improvement condition for review of pressure release valves		
IC14	<p>The operator shall submit a written ‘pressure release valve review’ report and shall obtain the Environment Agency’s written approval to it. The report shall contain the results of an inspection and program of works undertaken by an appropriately qualified engineer and shall assess the design specification, condition and suitability of pressure release valves and associated pipework on tanks where there is a risk of over or under pressurisation.</p> <p>The report shall review the pressure relief and vacuum release valves (PVRV) in line with the criteria set out in section 8.11 (Pressure and vacuum relief control – AD and TAD plants) of Environment Agency guidance, Biological waste treatment: appropriate measures for permitted facilities.</p>	Within 6 months of permit issue or such other date as agreed in writing with the Environment Agency

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	<p>The report shall also include, but not be limited to:</p> <ul style="list-style-type: none"> • A program of works with timescales for the implementation of identified individual improvement measures necessary to demonstrate that the PVRVs are fit for purpose. • A preventative maintenance and inspection regime. <p>The report shall be implemented in accordance with the Environment Agency's written approval.</p>	

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
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Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Existing medium combustion plant which are engines fuelled on biogas (1 MW to 5 MW)						
Point A11 on site plan 1 in Schedule 7 ST 84761 58753	CHP engine 1 stack 4.5MWth input [note 1]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	Average over sample period	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m ³ [note 2]			BS EN 14791 or CEN TS 17021 or by calculation based on fuel sulphur
		Sulphur dioxide	162 mg/m ³ [note 3]			
		Carbon monoxide	1400 mg/m ³			BS EN 15058
		Total VOCs	1000 mg/m ³			BS EN 12619
Existing combustion plant (less than 1 MW)						
Point A8a on site plan 1 in schedule 7 ST 84761 58753	Boiler 1 stack 0.75MWth input [burning biogas]	--	--	--	--	--
	Boiler 1 stack 0.75MWth input [burning natural gas]	--	--	--	--	--
Point A8b on site plan 1 in schedule 7 ST 84761 58753	Boiler 2 stack 0.75MWth input [burning biogas]	--	--	--	--	--
	Boiler 2 stack 0.75MWth input [burning natural gas]	--	--	--	--	--
Point A1 on site plan 1 in schedule 7 ST 84738 58768	Flare waste gas burner [note 1]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	150 mg/m ³	Average over sample period	[note 4]	BS EN 14792
		Carbon monoxide	50 mg/m ³			BS EN 15058

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
		Total VOCs	10 mg/m ³			BS EN 12619
Point A12 on site plan 1 in schedule 7 ST 84757 58899	Biomethane waste gas burner [note 1]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	150 mg/m ³	Average over sample period	[note 4]	BS EN 14792
		Carbon monoxide	50 mg/m ³			BS EN 15058
		Total VOCs	10 mg/m ³			BS EN 12619
Point A16 on site plan 1 in schedule 7 ST 84767 58908	Channelled emissions from the carbon filter [note 6]	Hydrogen sulphide	No limit set	Average over sample period	Once every 6 months	CEN TS 13649 for sampling NIOSH 6013 for analysis
		Ammonia	20 mg/m ³	Average over sample period	Once every 6 months	EN ISO 21877
		Odour concentration	No limit set	--	Once every 6 months	BS EN 13725
Point A16 on site plan 1 in schedule 7 ST 84767 58908	Channelled emissions to air from treatment of water-based liquid waste	Hydrogen chloride (HCl)	5 mg/m ³ [note 5]	Average over sample period	Once every 6 months	EN 1911
		TVOC	20 mg/m ³ [note 5]	Average over sample period	Once every 6 months	EN 12619
Point A16 on site plan 1 in schedule 7 ST 84767 58908	Biogas upgrading plant stack	VOCs including methane	No limit set	Average over sample period	Annual	BS EN 12619 or EN ISO 13199
		Vent gas flow rate	No limit set	Average over sample period	Annual	By measurement or calculation. Method to be agreed in writing with the Environment Agency.
Pressure relief valves [Point A13, A14 and A15 on site	Biogas upgrading plant	Biogas release and operational events	No limit set	Recorded duration and frequency	Daily inspection	--

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
plan 1 in schedule 7] ST 84762 58902 ST 84767 58908 ST 84778 58923						
Pressure relief valves [Point A5 on site plan 1 in schedule 7] ST 84778 58744	Biogas holder	Biogas release and operational events	No limit set	Recorded duration and frequency	Daily inspection	--
Vents from tanks	Oil/Fuel Storage tanks	No parameter set	No limit set	--	--	--

Note 1 – These emission limits are based on normal operating conditions and load - temperature 0°C (273 K); pressure 101.3 kPa and oxygen 5% (for gas engines burning biogas) and oxygen 3% (for emergency flares and medium combustion plants other than engines and gas turbines burning biogas such as boilers).

Note 2 – This emission limit applies until 31 December 2029, unless the gas engine is replaced.

Note 3 – This emission limit applies from 1 January 2030, unless otherwise advised by the Environment Agency.

Note 4 – Monitoring to be undertaken in the event the emergency flare has been operational for more than 10 per cent of a year (876 hours). Record of operating hours to be submitted annually to the Environment Agency.

Note 5 – Monitoring and limits only apply where the substance concerned is identified as relevant in the waste gas inventory IC12.

Note 6 – The monitoring of NH₃ and H₂S can be used as an alternative to the monitoring of the odour concentration subject to the outcome of IC12.

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter [Note 1]	Limit (incl. unit) [Note 1]	Reference Period	Monitoring frequency [Note 2]	Monitoring standard or method
T5 on site plan 1 in schedule 7 emission to Wessex Water Services Limited's installation (EPR/BB3934AG) prior to discharge to River Avon [via	Uncontaminated roof water, site surface water, boiler blowdown and biogas condensate and chiller/gas compressor liquors.	--	--	--	--	--

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter [Note 1]	Limit (incl. unit) [Note 1]	Reference Period	Monitoring frequency [Note 2]	Monitoring standard or method
Trowbridge WRC]						
T6 on site plan 1 in schedule 7 emission to Wessex Water Services Limited's installation (EPR/BB3934AG) prior to discharge to River Avon [via Trowbridge WRC]	Uncontaminated roof water, site surface water and G2G process clean up waters	--	--	--	--	--

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Biogas storage holders	Flow	Continuous	In accordance with EU weights and measures Regulations	Process monitoring to be recorded using a SCADA system where relevant. Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations.
	Methane	Continuous	None specified	
	CO ₂	Continuous	None specified	
	O ₂	Continuous	None specified	
	Hydrogen sulphide	Daily	None specified	
	Pressure	Continuous	None specified	
Diffuse emissions from all sources identified in the Leak Detection and Repair (LDAR) programme	VOCs including methane	Every 6 months or otherwise agreed in accordance with the LDAR programme	'Sniffing' and/or Optical Gas Imaging techniques in accordance with BS EN 15446 & BS EN 17628	Monitoring points as specified in a DSEAR risk assessment and LDAR programme. Limit as agreed with the Environment Agency as a percentage of the overall gas production.
CHP engine stack	VOCs including methane	Annually	BS EN 12619	Total annual VOCs emissions from the CHP engine(s) to be calculated and submitted to the Environment Agency.
	Exhaust gas temperature		Traceable to National Standards	--
	Exhaust gas pressure		Traceable to National Standards	--
	Exhaust gas water vapour content		BS EN 14790-1	Unless gas is dried before analysis of emissions.
	Exhaust gas oxygen		BS EN 14789	--

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	Exhaust gas flow		BS EN 16911-1	--
Meteorological conditions	Wind speed, air temperature, wind direction	Continuous	Method as specified in management system	<p>Conditions to be recorded in operational diary and records.</p> <p>Equipment shall be calibrated on a 4 monthly basis, in accordance with manufacturer's recommendations or as agreed in writing by the Environment Agency.</p>
Emergency flare	Operating hours	Continuous	Recorded duration and frequency. Recording using a SCADA system or similar system	Date, time and duration of use of auxiliary flare shall be recorded.
	Quantity of gas sent to emergency flare			Quantity can be estimated from gas flow composition, heat content, ratio of assistance, velocity, purge gas flow rate, pollutant emissions.
Pressure relief valves and vacuum systems	Gas pressure	Continuous	Recording using a SCADA system	Continuous gas pressure shall be monitored.
	Re-seating	Weekly inspection	Visual	Operator must ensure that valves are re-seated after release in accordance with the manufacturer's design.
	Inspection, maintenance, calibration, repair and validation	Following foaming or overtopping or at 3 yearly intervals whichever is sooner	Written scheme of examination in accordance with condition 1.1.1	After a foaming event or sticking, build-up of debris, obstructions or damage, operator must ensure that pressure relief

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
				valve function remains within designed gas pressure in accordance with the manufacturer's design by suitably trained and qualified personnel.
	Inspection, calibration and validation report	In accordance with design and construction specifications or after over topping or foaming event	Written scheme of examination in accordance with condition 1.1.1	Operator must ensure that valves are re-seated after release, after a foaming event or sticking, build-up of debris, obstructions or damage. Operator must ensure that PRV function remains within designed operation gas pressure in accordance with the manufacturer's design by suitably trained/qualified personnel. Inspection, calibration and validation report. In accordance with industry Approved Code of Practice

Table S3.4 Process monitoring requirements – odour abatement				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Odour abatement plant				
Carbon filters				

Table S3.4 Process monitoring requirements – odour abatement				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Carbon filter (A16)	Carbon bed temperature – inlet and outlet	Continuous	Temperature probe	Odour abatement plant shall be managed in accordance with permit condition 3.3, the odour management plan and manufacturer's recommendations. Carbon filter(s) to be replaced in accordance with manufacturer's recommendations. Equipment shall be calibrated on a 4 monthly basis, or as agreed in writing by the Environment Agency.
	Gas flow rate – inlet and outlet	Continuous	Gas flow meter	
	Moisture or humidity	Daily	Moisture meter	
	Back pressure	Weekly	Recognised industry method	
	Efficiency assessment	Annual	Emission removal efficiency (BS EN 13725 for odour removal)	
	Hydrogen sulphide – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	CEN TS 13649 for sampling NIOSH 6013 for analysis	Action levels to be agreed on completion of IC12 as approved in writing by the Environment Agency. Action levels to be achieved in accordance with permit condition 3.2 and the odour management plan.
	Ammonia – inlet	Every 6 months or as agreed in writing by the Environment Agency.	EN ISO 21877	Action levels to be agreed on completion of IC12 as approved in writing by the Environment Agency. Action levels to be achieved in accordance with permit condition

Table S3.4 Process monitoring requirements – odour abatement				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
				3.2 and the odour management plan.
	Odour concentration – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	BS EN 13725	<p>Action levels to be agreed on completion of IC12 as approved in writing by the Environment Agency.</p> <p>Action levels to be achieved in accordance with permit condition 3.2 and the odour management plan.</p>

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air from CHP engines and boilers Parameters as required by condition 3.5.1.	A11	Every 12 months	1 January
Emissions to air from odour abatement plant Parameters as required by condition 3.5.1.	A16	Every 6 months	1 January, 1 July
Emissions to air from abatement systems for waste gas treatment plant Reporting only applies where the substance concerned is identified as relevant in the waste gas inventory IC11 Parameters as required by condition 3.5.1.	A16	Every 6 months	1 January, 1 July
Process monitoring – under and over pressure relief systems Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 12 months Yearly summary report of over-pressure and under-pressure events detailing mass balance release	1 January
Process monitoring – pressure relief systems - leak detection and repair (inspection, calibration and maintenance) Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 3 years	1 January
Process monitoring – leak detection and repair surveys Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 12 months LDAR report to be submitted annually	1 January
Process monitoring – use of emergency flare Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 12 months	1 January
Total annual VOCs emissions from gas engines (calculated)	As specified in schedule 3 table S3. 3	Every 12 months	1 January

Table S4.2 Annual production/treatment	
Parameter	Units
Electricity generated	MWh
Biomethane generated	tonnes or m ³
Recovered outputs	tonnes or m ³

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes or m ³
Energy usage	Annually	MWh
Raw material usage	Annually	tonnes or m ³
Emergency flare operation	Annually	hours
Electricity exported	Annually	MWh
Biomethane exported	Annually	tonnes or m ³
CHP engine usage	Annually	hours
CHP engine efficiency	Annually	%
Auxiliary boiler usage	Annually	hours

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	29/01/2025
Process monitoring	Form process 1 or other form as agreed in writing by the Environment Agency	29/01/2025
Sewer	Form sewer 1 or other form as agreed in writing by the Environment Agency	29/01/2025
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	29/01/2025
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	29/01/2025
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	29/01/2025
Waste returns	E-waste Return Form or other form as agreed in writing by the Environment Agency	--

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period

(c) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

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 unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“anaerobic digestion” means a process of controlled decomposition of biodegradable materials under managed conditions where free oxygen is absent, at temperatures suitable for naturally occurring mesophilic or thermophilic anaerobes and facultative anaerobe bacteria species, which convert the inputs to a methane-rich biogas and whole digestate.

“animal waste” means any waste consisting of animal matter that has not been processed into food for human consumption.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“appropriate abatement system” means the appropriate treatment technique for channelled emissions to air defined in 6.6.1 ‘Channelled emissions to air’ from the ‘Best Available Techniques (BAT) Reference Document for Waste Treatment’.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“Best available techniques” means the most effective and advanced stage in the development of activities and their methods of operation which indicates the practical suitability of particular techniques for providing the basis for emission limit values and other permit conditions designed to prevent and, where that is not practicable, to reduce emissions and the impact on the environment as a whole:

(a) ‘techniques’ includes both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned;

(b) ‘available techniques’ means those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator;

(c) ‘best’ means most effective in achieving a high general level of protection of the environment as a whole.

“Biodegradable” means a material is capable of undergoing biological anaerobic or aerobic degradation leading to the production of CO₂, H₂O, methane, biomass, and mineral salts, depending on the environmental conditions of the process.

“building” means a construction that has the objective of providing sheltering cover and minimising emissions of noise, particulate matter, odour and litter.

“BREF” means Best Available Techniques (BAT) Reference Document.

“Capacity” means the potential capacity and not historical or actual production levels or throughput. This means that the designed capacity is the maximum rate at which the site can operate. Biological treatment of waste usually takes place over more than one day, so the physical daily capacity can be calculated by dividing the maximum quantity of waste that could be subject to biological treatment at any one time by the minimum residence time. For in-vessel composting, the residence time for sanitisation should be calculated separately and then aggregated to the complete composting time. Further guidance [‘RGN2: Understanding the meaning of regulated facility Definition of regulated facility’](#) is available.

“channelled emissions” means the emissions of pollutants into the environment through any kind of duct, pipe, stack, etc. This also includes emissions from open top biofilters.

“combined heat and power” (CHP) or Cogeneration means the simultaneous generation in one process of thermal energy and electrical or mechanical energy.

“competent persons and resources” means that a technically competent person accredited to a relevant scheme must attend site and record their attendance, and that all roles and responsibilities are clearly stated in the management systems along with records of operatives’ training. See the guidance on the [level of competence and duration of attendance](#)

“compliance date” means 01/01/2025 for existing MCPs with net rated thermal input of greater than 5MWth or 01/01/2030 for existing MCPs with a net rated thermal input of less than or equal to 5MWth.

“compost” means solid particulate material that is the result of composting, which has been sanitised and stabilised, and which confers beneficial effects when added to soil, used as a component of growing media or used in another way in conjunction with plants.

“composting” means the managed biological decomposition of biodegradable waste organic materials, under conditions that are predominantly aerobic and that allow the development of thermophilic temperatures as a result of biologically produced heat and that result in compost.

“composting batch” means an identifiable quantity of material that progresses through the composting system and when fully processed has similar characteristics throughout. For composting systems that operate on a continuous- or plug-flow basis, batches will be taken to mean a series of “portions of production”.

“direct discharge” means discharge to a receiving water body.

“diffuse emissions” mean non-channelled emissions (e.g. of dust, organic compounds, odour) which can result in ‘area’ sources (e.g. tanks) or ‘point’ sources (e.g. pipe flanges). This also includes emissions from open-air windrow composting.

“digestate” means material resulting from an anaerobic digestion process.

“disposal” means any of the operations provided for in Annex I to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“DSEAR” means the Dangerous Substances and Explosive Atmospheres Regulations 2002.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission limit.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“existing medium combustion plant” means an MCP which was put into operation before 20 December 2018.

“generator” means any combustion plant which is used to generate electricity, excluding mobile, unless it is connected to the national grid.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“impermeable surface” means a surface or pavement constructed and maintained to a standard sufficient to prevent the transmission of liquids beyond the pavement surface.

“Indirect discharge” means a discharge to a sewer or off-site waste water treatment plant.

“Industrial Emissions Directive” and/or “IED” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“Leak detection and repair (LDAR) programme” means a structured approach to reduce fugitive emissions of organic compounds by detection and subsequent repair or replacement of leaking components. Currently, sniffing (described by EN 15446) and optical gas imaging methods are available for the identification of leaks as set out in BAT 14 and section 6.6.2 of the Waste Treatment BAT Conclusions.

“limited operating hours MCP” means an MCP that meets the requirements of paragraph 8 of Part 2 of Schedule 25A of the Environmental Permitting Regulations.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“medium combustion plant” or “MCP” means a combustion plant with a rated thermal input equal to or greater than 1 MW but less than 50 MW.

“Medium Combustion Plant Directive” or “MCPD” means Directive 2015/2193/EU of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“new medium combustion plant” means an MCP which was put into operation after 20 December 2018. This includes replacement MCP and Generators.

“operating hours” means the time, expressed in hours, during which a combustion plant is operating and discharging emissions into the air, excluding start-up and shut-down periods

“operational area” means any part of a facility used for the handling, storing and treatment of waste.

“operator” means in relation to a regulated facility:

- (a) the person who has control over the operation of the regulated facility,
- (b) if the regulated facility has not yet been put into operation, the person who will have control over the regulated facility when it is put into operation, or
- (c) if a regulated facility authorised by an environmental permit ceases to be in operation, the person who holds the environmental permit

“pests” means Birds, Vermin and Insects.

“PFOA” means Perfluorooctanoic acid.

“PFOS” means Perfluorooctanesulphonic acid.

“pollution” means emissions as a result of human activity which may—

- (a) be harmful to human health or the quality of the environment,
- (b) cause offence to a human sense,
- (c) result in damage to material property, or
- (d) impair or interfere with amenities and other legitimate uses of the environment.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

“recovery” means any of the operations provided for in Annex II to Directive 2008/98/EC of the European Parliament and of the Council on waste.

“sanitisation” means the actively managed and intensive stage of composting, lasting for at least 5 days, characterised by high oxygen demand and temperatures of over 55°C, during which biological processes, together with conditions in the composting mass, eradicate human and animal pathogens or reduce them to acceptably low levels. The operator also needs to meet ABPR requirements.

“sealed drainage system” in relation to an impermeable surface, means a drainage system with impermeable components which does not leak and which will ensure that:

- no liquids will run off the surface otherwise than via the system
- all liquids entering the system are collected in a sealed sump, except where liquids may be lawfully discharged to foul sewer.

“specified generator” means a group of generators other than excluded between 1 and 50 megawatts or less than 50 megawatts as defined in Schedule 25B(2) of SI 2018 No.110 of the EPR.

“stable” and/or “stabilised” means the degree of processing and biodegradation at which the rate of biological activity has slowed to an acceptably low and consistent level and will not significantly increase under favourable, altered conditions.

“stabilisation stage” means the stage of composting following sanitisation, during which biological conditions in the composting mass, give rise to compost that is nominally stable.

“VOC” means Volatile organic compounds as defined in Article 3(45) of Directive 2010/75/EU – ‘volatile organic compound’ means any organic compound as well as the fraction of creosote, having at 293.15K a vapour pressure of 0.01 kPa or more, or having a corresponding volatility under the particular conditions of use.

“Waste code” means the six-digit code referable to a type of waste in accordance with the List of Wastes (England) Regulations 2005, or List of Wastes (Wales) Regulations 2005, as appropriate, and in relation to hazardous waste, includes the asterisk.

“Waste Framework Directive” and/or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

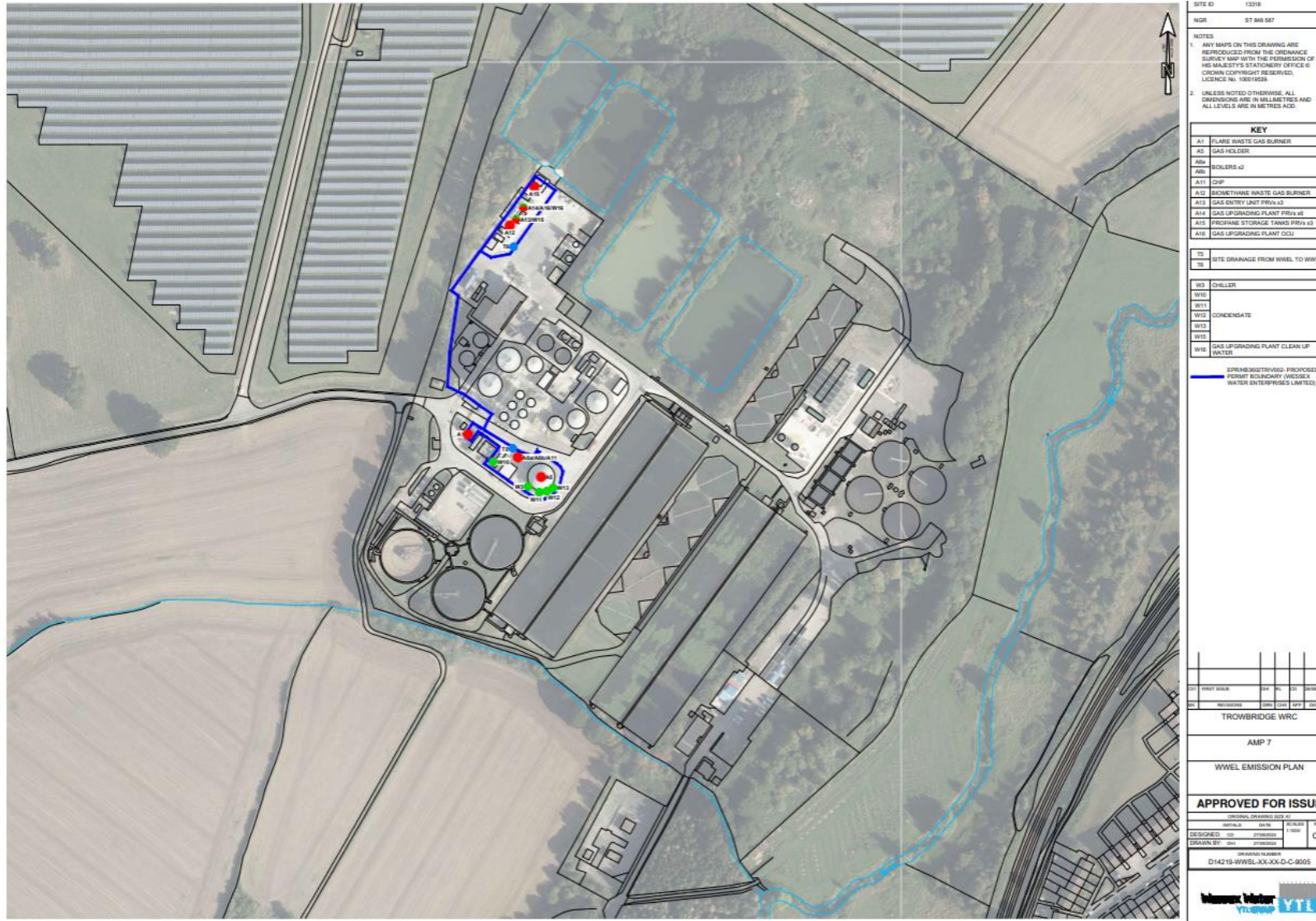
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid fuels and gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

“year” means a calendar year ending on 31 December.

Schedule 7 – Site plan

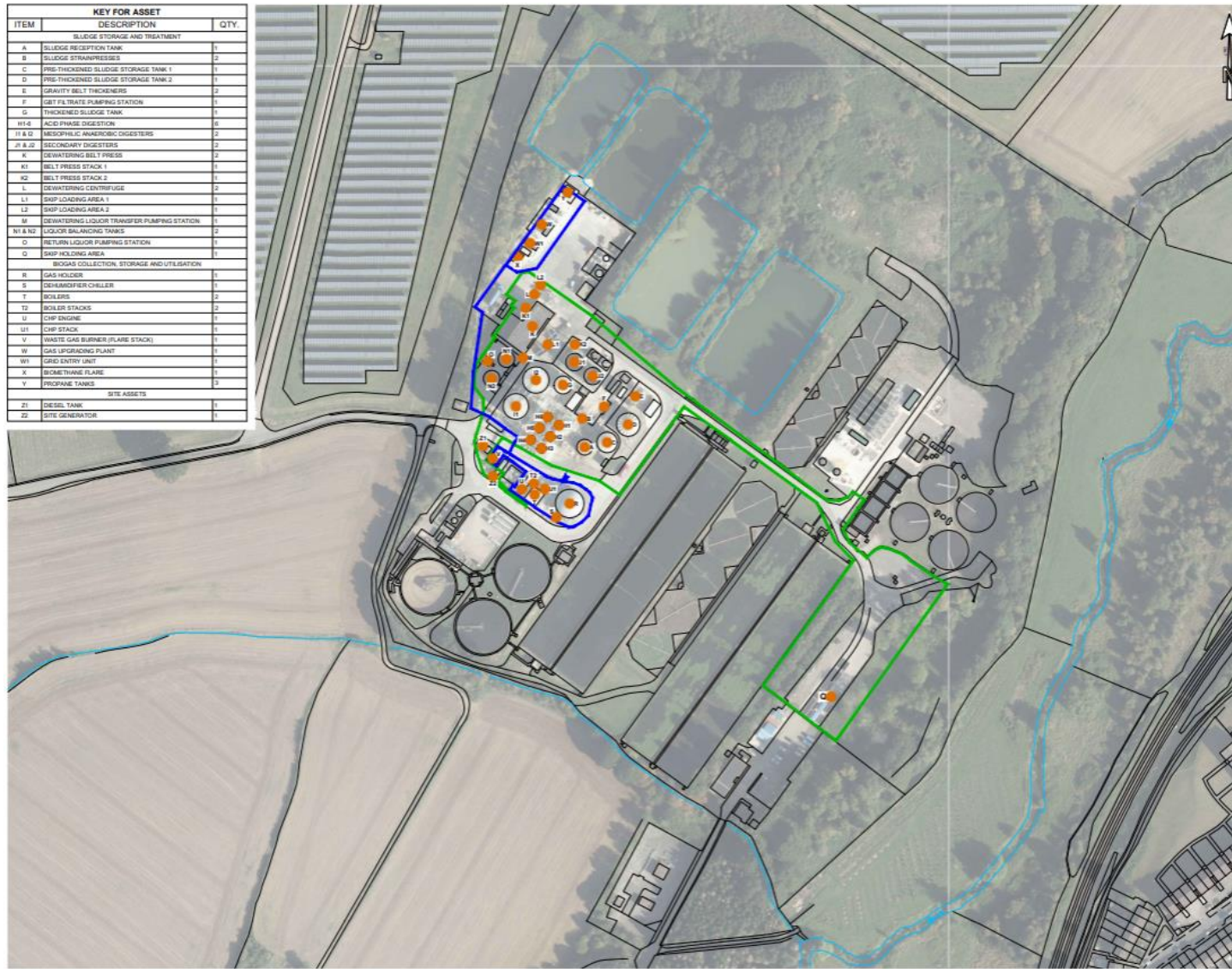
Site plan 1



Permit number
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Site plan 2

KEY FOR ASSET		
ITEM	DESCRIPTION	QTY.
SLUDGE STORAGE AND TREATMENT		
A	SLUDGE RECEPTION TANK	1
B	SLUDGE STRAINPRESSES	2
C	PRE-THICKENED SLUDGE STORAGE TANK 1	1
D	PRE-THICKENED SLUDGE STORAGE TANK 2	1
E	GRAVITY BELT THICKENERS	2
F	SETTLE TRAP PUMPING STATION	1
G	THICKENED SLUDGE TANK	1
H1-6	ACID PHASE DIGESTION	6
H1 & H2	MESOPHILIC ANAEROBIC DIGESTERS	2
J1 & J2	SECONDARY DIGESTERS	2
K	DEWATERING BELT PRESS	2
K1	BELT PRESS STACK 1	1
K2	BELT PRESS STACK 2	1
L	DEWATERING CENTRIFUGE	2
L1	SNIP LOADING AREA 1	1
L2	SNIP LOADING AREA 2	1
M	DEWATERING LIQUOR TRANSFER PUMPING STATION	1
N1 & N2	LIQUOR BALANCING TANKS	2
O	RETURN LIQUOR PUMPING STATION	1
O	SNIP HOLDING AREA	1
BIODIGESTION, STORAGE AND UTILISATION		
R	GAS HOLDER	1
S	DEHUMIDIFIER CHILLER	1
T	BOILERS	2
T2	BOILER STACKS	2
U	CHP ENGINES	1
U1	CHP STACK	1
V	WASTE GAS BURNER (FLARE STACK)	1
W	GAS UPGRADING PLANT	1
W1	GAS ENTRY UNIT	1
X	BIOETHANE FLARE	1
Y	PROPANE TANKS	3
SITE ASSETS		
Z1	DIESEL TANK	1
Z2	SITE GENERATOR	1



SITE ID: 13318
NSR: ST 948 567

NOTES

- ANY MAPS ON THIS DRAWING ARE REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF HIS MAJESTY'S STATIONARY OFFICE © CROWN COPYRIGHT RESERVED. LICENCE No. 10001928
- UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE IN MILLIMETRES AND ALL LEVELS ARE IN METRES AOD.

KEY

- NEW INSTALLATION BOUNDARY
- EPN/RESERVED-PROPOSED PERMIT BOUNDARY (WESSEX WATER ENTERPRISES LIMITED)

CD	REVISED	DATE	BY	CHKD	DATE
01	ISSUE	10/10/2024	CD	CD	10/10/2024

TROWBRIDGE WRC

AMP 7

ASSET PLAN

APPROVED FOR ISSUE

DESIGNED BY	DATE	SCALE	REV
CD	10/10/2024	1:1	CD1

DRWING NUMBER: D14218-WWSL-XX-XX-D-C-0008

Wessex Water **YTL**

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Permit number
EPR/HB3602TR

Annex 1 of MCP

1. Rated thermal input (MW) of the medium combustion plant.	CHP 1 – 4.5MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	CHP engine fuelled on biogas
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Gaseous fuels other than natural gas
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	CHP 1 – March 2015
5. Sector of activity of the medium combustion plant or the facility in which it is applied (NACE code).	37.00
6. Expected number of annual operating hours of the medium combustion plant and average load in use.	CHP 1 - 8,760 hours per year
7. Where the option of exemption under Article 6(3) or Article 6(8) is used, a declaration signed by the operator that the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.	N/A
8. Name and registered office of the operator and, in the case of stationary medium combustion plants, the address where the plant is located.	<p>Company name and registered office: Wessex Water Enterprises Limited Wessex Water Operations Centre, Claverton Down Road, Claverton Down, Bath, BA2 7WW</p> <p>Address where the plant is located: Trowbridge Bioresources Centre, Off Bradford Road, Trowbridge, Wiltshire, BA14 9AX</p>

END OF PERMIT