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# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Willand O&M Limited

Willand Anaerobic Digester Willand Road Willand Devon EX15 2PJ

# Variation application number

EPR/WP3533AJ/V003

#### Permit number

EPR/WP3533AJ

# Willand Anaerobic Digester Permit number EPR/WP3533AJ

# Introductory note

### This introductory note does not form a part of the notice

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 made by the operator - EPR/WP3533AJ/V002

The consolidated variation authorises the following changes:

- increase in annual throughput of waste from 55,000 to 75,000 tonnes (total throughput 100,000 tonnes including non-waste feedstock);
- addition of 29 new biodegradable waste streams (Table S2.2);
- addition of site infrastructure with associated emission points two buffer tanks, four hydrolysis tanks, four continuously stirred tank reactor (CSTR) digester tanks, two liquid digestate storage tanks, one emergency flare and one PURAC biogas upgrading plant;
- addition of an odour abatement system for the crop reception hall;
- addition of digestate separation equipment centrifuge and screw press; and
- addition of storage and loading area for solid wastes.

#### Changes introduced by this variation notice/statutory review - EPR/WP3533AJ/V003

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. Article 21(3) of the IED requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication of updated decisions on Best Available Techniques (BAT) Conclusions. The BAT Conclusions for Waste Treatment was published on 17 August 2018 following a European Union wide review of BAT, implementing decision (EU) 2018/1147 of 10 August 2018.

The scope of the permit review also covers the assessment of:

- the bioaerosols monitoring and compliance with M9 bioaerosols monitoring requirements;
- the design and construction of secondary containment and storage lagoons;
- the available storage facilities and measures to reduce ammonia emissions from storage; and
- information on existing medium combustion plant and/or specified generators on site.

This variation has been issued to update some of the conditions following a statutory review of the permits in the industry sector for biowaste treatment. We have taken the opportunity to update and consolidate the original permit and subsequent variations.

#### Brief description of the process

The main features of the permit are as follows:

The anaerobic digestion (AD) facility is designed to process non-hazardous wastes consisting primarily of farm yard manure, grass silage, maize silage, beet and wheat grain. This variation introduces biodegradable wastes from commercial/industrial sources.

Waste is delivered to the site in covered vehicles and deposited in an enclosed reception building. This building is equipped with an extraction ventilation system which extracts air to an odour abatement system consisting of an ammonia scrubber and biofilter that will treat odour emissions prior to discharge to atmosphere.

Liquid waste is delivered via tanker and transferred via inlet pipework to the liquid hydrolysis tanks for predigestion storage. The hydrolysis tanks are fitted with a submerged mechanical mixer to homogenise the contents. Liquid waste is automatically pumped into the digesters by a positive displacement pump via a macerator to prevent any large objects entering the digesters.

Air is injected into the top of the digesters to remove hydrogen sulphide. The biogas produced is stored in gas holders in the roof space of the digesters and digestate storage tanks. The biogas is drawn off the digesters/digestate storage tanks and combusted in a CHP engine /auxiliary boiler to generate electricity. The heat produced from the CHP engine is recovered and integrated into the process heating requirements. Excess biogas not utilised by the CHP engine is upgraded in the biogas upgrading plants and injected into the gas grid.

The emergency flares operate to deal with any excess biogas or situations where there is a risk of excess pressure building up within the system, especially when the gas upgrading plants and CHP engine /auxiliary boiler are not running due to routine maintenance or breakdown.

Following digestion, the by-product from the process (whole digestate) is transferred to a pasteurisation tank for heat treatment at 70°C for a minimum of one hour in accordance with the Animal By-Product Regulations. The by-product from the process (digestate) is separated into the solid and liquid fraction in an enclosed digestate treatment building with odour abatement (carbon filter). The liquid fraction is transferred to digestate storage tanks prior to despatch off site for landspreading. The solid fraction of the digestate is stored in a building temporarily on site prior to removal for landspreading. This environmental permit does not authorise the spreading of digestate on any land.

Air emissions include point source emissions from the CHP engine, the emergency flares, auxiliary boiler, odour abatement stacks, gas upgrading plant stacks and tank pressure relief valves. All emissions have been assessed in line with our technical guidance and appropriate emissions limits set in the permit.

There are no process discharges to controlled waters or sewer. Site surface water run-off is directed to the attenuation pond after passing through an oil interceptor, prior to discharge to Spratford stream.

The installation is located on industrial land at Willand Road, Willand, Devon, EX15 2PJ at grid reference ST 03016 11220. The installation is bound to the north by the effluent treatment plant of an abattoir, to the south by an abattoir; to the east by a railway line and scrap yard; to the west by Spratford stream. There are no European habitat sites (Special Protection Areas, Special Areas of Conservation or Ramsar) within 10 km from the installation. There are no Site of Special Scientific Interest (SSSI) or local wildlife sites located within 2 km of the installation.

The schedules specify the changes made to the permit.

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

Status log of the permit			
Description	Date	Comments	
Application EPR/WP3533AJ/A001	Duly made 18/05/2016	Application for an anaerobic digestion facility with combustion of biogas in a CHP plant and upgrading of excess biogas.	
Schedule 5 - Additional information dated 28/07/2016	Received 07/10/2016	List of feedstock and wastes to be processed; List of raw materials.	
Schedule 5 - Additional information dated 28/07/2016	Received 24/11/2016	Air quality impact assessment of a combined heat and power biogas engine at the Willand anaerobic digestion plant.	

Status log of the permit			
Description	Date	Comments	
Schedule 5 No 2 dated 13/12/2016	Received 17/02/2017	Willand OMP V2 dated 17/02/2017; Willand EMS; Revised OPRA; Table 1B List of Wastes; Non-Technical Summary.	
Schedule 5 No 3 dated 23/03/2017	Received 26/06/2017	Installation Boundary including emission points and drainage - Drawing No 151103/2015 rev 3.	
		Preliminary Report Biofilter Sizing dated 23/06/2017.	
		Willand OMP V3, Willand EMS rev 3; GFLE Willand O&M Ltd - Accident Management Plan	
Additional information email	Received 25/08/2017	Confirmation of the use of air for H <sub>2</sub> S removal from biogas and that oxygen is monitored automatically and use of a high level alarm.	
Additional information email	Received 01/09/2017	Description of pre-treatment (pasteurisation) and PRVs.	
Additional information email with covering letter	Received 18/09/2017	Notification of change of name from GFLE Willand O&M Limited to Willand O&M Limited, company registration number 10967093.	
		Phased approach for operation of the AD plant initially with non-waste feedstock only.	
Permit determined	22/09/2017	Permit issued to Willand O&M Limited.	
Regulation 61 Notice sent to Operator	19/07/2019	Regulation 61 Notice requiring information for statutory review of permit.	
Application EPR/WP3533AJ/V002 (variation and consolidation)	Duly made 10/10/2019	Variation application to increase annual throughput of waste from 55,000 to 75,000 tonnes (total throughput 100,000 tonnes); addition of 29 waste streams; addition of new site infrastructure and addition of storage and loading area for solid wastes.	
Regulation 61 Notice response	15/10/2019	Response received from the operator.	
Application EPR/WP3533AJ/V003 (variation and consolidation)	Environment Agency Initiated Variation	Statutory review of permit occasioned by Waste Treatment BAT Conclusions published on 17 August 2018.	
Additional information received	31/01/2020	Response to Schedule 5 notice dated 02/01/2020.	
Additional information received	25/09/2020	Response to Schedule 5 notice dated 26/05/2020.	
Additional information received	23/11/2020	Withdrawal of digestate treatment plant with associated discharge of treated water from the variation application.	
Additional information received	17/01/2021	Response to Schedule 5 notice dated 04/12/2020.	
Additional information received	10/02/2021	Emissions points plan.	
Environment Agency Biowaste Treatment Sector Review	24/03/2021	Varied and consolidated permit issued. Variation V002 and V003 have been issued as one notice.	
Permit reviewed Variation determined EPR/WP3533AJ			
(Billing Ref: DP3802BU)			

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/WP3533AJ

#### Issued to

Willand O&M Limited ("the operator")

whose registered office is

Cleave Farm Templeton Tiverton EX16 8BP

company registration number 10967093

to operate a regulated facility at

Willand Anaerobic Digester Willand Road Willand Devon EX15 2PJ

to the extent set out in the schedules.

The notice shall take effect from 24/03/2021.

Name	Date
Rebecca Warren	24/03/2021

Authorised on behalf of the Environment Agency

#### Schedule 1

All conditions have been varied by the consolidated permit as a result of an application made by the operator and as a result of an Environment Agency initiated variation.

# Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

# **Permit**

# The Environmental Permitting (England and Wales) Regulations 2016

#### Permit number

#### EPR/WP3533AJ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/WP3533AJ/V003 authorising.

Willand O&M Limited ("the operator"),

whose registered office is

Cleave Farm Templeton Tiverton EX16 8BP

company registration number 10967093

to operate an installation at

Willand Anaerobic Digester Willand Road Willand Devon EX15 2PJ

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

Name	Date
Rebecca Warren	24/03/2021

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.

# 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 green on the site plan at schedule 7 to this permit.

# 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 Waste shall only be accepted if:
  - (a) it is of a type and quantity listed in schedule 2 table S2.2; and
  - (b) it conforms to the description in the documentation supplied by the producer and holder.
  - (c) the facility has sufficient free capacity to store and treat the waste.
- 2.3.5 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.
- 2.3.6 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.
- 2.3.7 Waste pre-acceptance and acceptance procedures shall be undertaken in accordance with best available techniques.

- 2.3.8 For the following activities referenced in schedule 1, table S1.1 (AR4):
  - (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 each MCP as short as possible.
  - (c) there must 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.

# 2.5 Pre-operational conditions

- 2.5.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4A have been completed.
- 2.5.2 The operations specified in schedule 1 table S1.4B shall not commence until the measures specified in that table have been completed.

# 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) 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.

### 3.5 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 table S3.3;
  - (c) bioaerosols monitoring specified in table 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 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 shall not take place during periods of start-up or shut-down.

#### 3.6 Bioaerosols

- 3.6.1 The operator shall take all appropriate measures, to prevent or where that is not practicable to minimise the release of bioaerosols. Emissions of bioaerosols from the operational activities should not exceed the emission action levels specified in table S3.4.
- 3.6.2 The operator shall where the emission action levels are exceeded:
  - (a) notify the Environment Agency and investigate and take remedial action;
  - (b) submit to the Environment Agency for approval within the period specified, a bioaerosols management plan which identifies and minimises the risks of pollution from bioaerosols; and

(c) implement the bioaerosols management plan from the date of approval and revise the plan periodically, unless otherwise agreed in writing by the Environment Agency.

#### 3.7 Pests

- 3.7.1 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.
- 3.7.2 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.

# 3.8 Fire prevention

- 3.8.1 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.
- 3.8.2 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.

#### 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.

# 4.2 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.

#### 4.3 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 reoccurrence 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 the 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
AR1	S5.4 A(1)(b)(i) Recovery or a mix of recovery and disposal 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.	R3: Recycling/reclamation of organic substances which are not used as solvents	From receipt of waste through to digestion and recovery of by-products (digestate).  Anaerobic digestion of waste in eight tanks followed by burning of biogas produced from the process.  Annual combined throughput of 100,000 tonnes per annum of waste and non-waste feedstock.  Waste types suitable for acceptance are limited to those specified in Table
	Directly Associated Ac	tivity.	S2.2.
AR2	Storage of waste pending recovery or disposal	R13: Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on the site where it is produced)	From the receipt of permitted waste to pre-treatment and despatch for anaerobic digestion on site.  Storage of residual wastes from pre-treatment to despatch off-site for recovery.  Storage of waste in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system.  Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR3	Physical treatment for the purpose of recycling	R3: Recycling/reclamation of organic substances which are not used as solvents	From the receipt of waste to despatch for anaerobic digestion or despatch off site for recovery.  Pre-treatment of waste in enclosed building and on impermeable surface with sealed drainage system including shredding, sorting, screening, compaction, baling, mixing and maceration.  Post-treatment of digestate in an enclosed building and on an impermeable surface with sealed drainage system, including screening

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
			to remove contraries, centrifuge or pressing and addition of thickening agents (polymers) or drying for use as a fertiliser or soil conditioner (drying for the purpose of use as a fuel is not permitted).
			Heat treatment (pasteurisation) of waste in two tanks for the purpose of recovery.
			Gas cleaning by biological or physical (carbon filtration) or chemical scrubbing.
			Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR4	Steam and electrical power supply	R1:Use principally as a fuel to generate energy	From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion gases.
			Combustion of biogas in one combined heat and power (CHP) engine with a thermal input of 0.5 MW.
			Combustion of biogas in one auxiliary boiler with a thermal input of 0.6 MW.
AR5	Emergency flare operation	D10: Incineration on land	From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases.
			Use of two auxiliary flares required only during periods of breakdown or maintenance of the CHP engine, auxiliary boiler and/or biogas upgrading plants.
AR6	Gas upgrading	Upgrading of biogas to biomethane (including the removal of moisture and other substances such as carbon dioxide, hydrogen sulphide and Volatile organic compounds) for injection into the National	From the receipt of biogas produced at the on-site anaerobic digestion process to injection into the National Grid. This includes return of off-specification biogas for combustion to the on-site CHP engine, auxiliary boiler and/or emergency flare.
		Grid.	Operation of two biogas upgrading plants.

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
AR7	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, glycerol and propane.	From the receipt of raw materials to despatch for use within the facility.
AR8	Storage of non-waste feedstock	Non-waste feedstock	From the receipt of feedstock to despatch for anaerobic digestion or despatch off site for recovery.
			Storage of vegetable matter (energy crops) including maize silage, grass silage (non-waste), wheat grain and fodder within the reception hall on an impermeable surface with sealed drainage.
AR9	Gas storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage,	Storage of biogas produced from on- site anaerobic digestion of permitted waste in roof space of digesters and digestate storage tanks.
		pending collection, on the site where it is produced)	From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility.
AR10	Digestate storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage,	From the receipt of processed uncertified digestate produced from the on-site anaerobic digestion process to despatch for use off-site.
		pending collection, on the site where it is produced)	Storage of processed uncertified liquid digestate in five storage tanks.
			Storage of processed uncertified solid digestate in covered bays or buildings and on an impermeable surface with a sealed drainage system.
AR11	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water in one attenuation pond.	From the collection of uncontaminated roof and site surface water from non-operational areas only to re-use within the facility or discharge off-site.
AR12	Air treatment	Collection and treatment of air from the buildings or plant using abatement system – [biofilter, carbon filters, mist system] prior to release to atmosphere.	From the collection of air from site processes to treatment and release of treated air to atmosphere.

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Application EPR/WP3533AJ/A001	Technical standards table of the application document in response to section 3a – technical standards, Part B of the application form.	13/05/2016	
Response to Schedule 5 Notice dated 28/07/2016	Details of biogas upgrading (CAPURE® TECHNOLOGY, Purac Puregas' CApure 2014-11-26 unit).	22/08/2016	
Response to Schedule 5 Notice dated 13/12/2016	Document - Willand Site Ammonia Scrubber System.	17/02/2017	
Response to Schedule 5 Notice dated 13/12/2016 and additional information	Installation Boundary including emission points and drainage - Drawing 151103/2015 rev3.  Preliminary Report Biofilter Sizing dated 23/06/2017  Willand EMS rev 3;  GFLE Willand O&M Ltd - Accident Management Plan.	26/06/2017	
Email Received on 14/08/2017	Confirmation that a compressor to the digesters will not be installed.	14/08/2017	
Email received on 25/08/2017	Use of air for the removal of H <sub>2</sub> S from biogas and confirmation that the levels of oxygen are continuously monitored with high O <sub>2</sub> level alarm	25/08/2017	
Email received on 01/09/2017	Details of the pre-treatment stage and confirmation that PRVs have carbon traps.	01/09/2017	
Application EPR/WP3533AJ/V002	Responses to Part C2 and C3 of the application forms and references supporting documentation.	Duly Made 10/10/2019	
Response to Regulation 61 Notice dated 19/07/2019 Application EPR/WP3533AJ/V003	<ul> <li>Annex 1 Returns Spreadsheet</li> <li>Compliance and operating techniques identified in response to BAT Conclusions 1 to 8, 10 to 24 and 33 to 38 in the Waste Treatment BREF published on 17 August 2018.</li> </ul>	Received 15/10/2019	
Additional information	Operating techniques described in the responses to the Schedule 5 Notice dated 02/01/2020 and including the following documents:  • 3863-2540-TCBC tank and Bund calcs  • ENOP SSI Spill Procedure 1.1  • MSDS Odourant  • Pre-acceptance of waste procedure PA1  • Waste acceptance procedure WA1  • Waste storage procedure WS1  • Willand Full Site Drainage Plan  • Willand Phase 3 Tanker Fill Point	31/01/2020	
Additional information	Operating techniques described in the responses to the Schedule 5 Notice dated 26/05/2020 and including the following documents:  • WOM-2540-001-NVMP_v1.1  • 3863-2540-F-Schedule Response_v1.0  • 3863-2540-G-Schedule Response_v1.0	25/09/2020	

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Additional information	Operating techniques described in the responses to the Schedule 5 Notice dated 04/12/2020 and including the following documents:  • 3863-2540-NTS Willand Non tech summary  • 3863-2540-PC_v1  • 3863-2540-Willand EMS v3  • Odour Management Plan v2	17/01/2021	
Additional information	Emissions points plan.	10/02/2021	

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
IC1	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 points A6 and A9 during normal operation, having regard to the Environment Agency technical guidance M2 and to MCERTS standards. As a minimum, two separate monitoring campaigns in a year shall be completed (one monitoring survey six months following the acceptance of waste specified in Table S2.2 for treatment on site).  The pollutants to be monitored shall include:  • total volatile organic compounds; and  • hydrogen sulphide	3 months following the acceptance of waste specified in Table S2.2 for treatment on site or otherwise agreed in writing by the Environment Agency	
IC2	Following the completion of IC1, the operator shall undertake an environmental impact assessment of all point source releases to air, using the information obtained through the emissions monitoring. The environmental impact assessment report and all associated monitoring reports and assessments shall be submitted in writing to the Environment Agency for review.  The environmental impact assessment shall, as a minimum, include:  • 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 on Air Quality Risk Assessment  • a completed H1 assessment software tool  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.	1 month following the completion of IC1 or otherwise agreed in writing by the Environment Agency	
IC3	The operator shall submit a written report to the Environment Agency for approval. The report shall contain a written review of the effectiveness of the installation's odour management plan.  The report shall include the dates for the implementation of individual measures identified in order to ensure compliance with indicative BAT as specified in section 7.6.5 of the Environment Agency Draft Technical Guidance for Anaerobic Digestion (Reference LIT 8737, November 2013) and Horizontal Guidance H4 – Odour Management.  The operator shall implement the actions and outcomes of the report as approved, and from the date stipulated by the Environment Agency.	Complete	

Table S1.3 Improvement programme requirements			
Reference	Requirement	Date	
IC4	The operator shall undertake a revised quantitative impact assessment (dispersion modelling) of emissions of bioaerosols (total bacteria and <i>Aspergillus fumigatus</i> ) from the open bed biofilter. The environmental impact assessment report and model input files shall be submitted in writing to the Environment Agency for review.	Complete	
IC5	The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved, but will be achieved before 17 August 2022. The report shall include, but not be limited to, the following:  1) Methodology for achieving BAT 2) Associated targets /timelines for reaching compliance by 17 August 2022 3) Any alterations to the initial plan (in progress reports). The report shall address the BAT Conclusions for Waste Treatment with respect to BAT 3 and 23.  Refer to BAT Conclusions for a full description of the BAT requirement.	Progress reports at six monthly intervals from date of permit issue: 25/09/2021 25/03/2022 30/06/2022	
IC6	The operator shall submit a written 'primary containment plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of an inspection and program of works undertaken by a qualified engineer, and shall assess the design specification and condition of primary containment systems where polluting liquids and solids are being stored, treated, and/or handled.  The plan shall include:  • an assessment of the physical condition of all primary containment systems (storage and treatment vessels) using a Written Scheme of Examination and their suitability for providing primary containment when subjected to the dynamic and static loads caused by catastrophic tank failure;  • a program of works with timescales for the implementation of individual improvement measures necessary to demonstrate that the primary containment is fit for purpose or alternative appropriate measures to ensure all polluting materials will be contained on site; and  • a preventative maintenance and inspection regime  The plan shall be implemented in accordance with the Environment Agency's written approval.	25/03/2022 or other date as agreed in writing with the Environment Agency	
IC7	The operator shall submit a written 'secondary and tertiary containment plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of an inspection and program of works undertaken by a competent structural engineer, in accordance with the risk assessment methodology detailed within CIRIA C736 (2014) guidance, of the condition and extent of secondary and tertiary containment systems where all polluting liquids and solids are being stored, treated, and/or handled.  The inspection shall consider, but not be limited to, the storage vessels, bunds, loading and unloading areas, transfer pipework/pumps, temporary storage areas, and liners underlying the site.  The plan shall include:	25/03/2022 or other date as agreed in writing with the Environment Agency	

Table S1.3 Im	provement programme requirements	
Reference	Requirement	Date
	<ul> <li>an assessment of the physical condition of all secondary and/or tertiary containment systems, using a Written Scheme of Examination and their suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure;</li> <li>a program of works with timescales for the implementation of individual improvement measures necessary for the secondary and/or tertiary containment systems to comply with CIRIA C736 (2014) guidance, or equivalent.</li> </ul>	
	a preventative maintenance and inspection regime  The plan shall be implemented in accordance with the Environment Agency's written approval.	
IC8	The operator shall carry out a review of the abatement plant on site, in order to determine whether the measures have been effective and adequate to prevent and where not possible minimise emissions released to air including but not limited to odour and ammonia.	25/03/2022 or other date as agreed in writing with the
	The operator shall submit a written report to the Environment Agency following this review for assessment and approval.	Environment Agency
	The report shall include but not limited to the following aspects:	
	<ul> <li>Full investigation and characterisation of the waste gas streams.</li> </ul>	
	<ul> <li>Abatement stack monitoring results (not limited to odour and ammonia)</li> </ul>	
	<ul> <li>Abatement process monitoring results (not limited to odour and ammonia)</li> </ul>	
	<ul> <li>Details of air quality quantitative impact assessment including modelling and a proposal for site-specific "action levels" (not limited to odour concentration, hydrogen sulphide and ammonia).</li> </ul>	
	Odour monitoring results at the site boundary	
	Records of odour complaints and odour related incidents	
	<ul> <li>Recommendations for improvement including the replacement or upgrading the abatement plant</li> </ul>	
	<ul> <li>Timescales for implementation of improvements to the abatement plant</li> </ul>	
	The operator shall implement the improvements in line with the timescales as approved by the Environment Agency.	
IC9	The operator shall establish the methane emissions in the exhaust gas from engines burning biogas and compare these to the manufacturer's specification and benchmark levels agreed in writing with the Environment Agency. The operator shall, as part of the methane leak detection and repair (LDAR) programme, develop proposals to assess the potential for methane slip and take corrective actions where emissions above the manufacturer's specification or appropriate benchmark levels are identified.	25/03/2022 or other date as agreed in writing with the Environment Agency

Table S1.4A Pre-operational measures							
Reference	Pre-operational measures						
1	At least 4 weeks (or any other date as agreed with the Environment Agency) prior to the acceptance of waste specified in Table S2.2 at the installation, the operator shall provide written evidence to the Environment Agency of the Technically Competent Manager (TCM) at the installation. The report shall confirm that the person(s):						
	<ul> <li>hold the relevant qualifications under the CIWM/WAMITAB scheme or other equivalent for the operation of the anaerobic digestion plant, and</li> </ul>						
	<ul> <li>have appropriate competence in operating the biogas upgrading plants (including the injection of biomethane into the Gas Grid).</li> </ul>						
	No waste shall be accepted at the installation unless the Environment Agency has given prior written permission under this condition.						

Table S1.4	Table S1.4B Pre-operational measures for future development						
Reference	Operation	Pre-operational measures					
1	Site infrastructure (Phase 2 and Phase 3)	At least 8 weeks (or any other date as agreed with the Environment Agency) prior to the acceptance of waste specified in Table S2.2 at the installation, the operator shall provide a written commissioning plan using waste for approval by the Environment Agency. The commissioning plan shall include, but not limited to:					
		<ul> <li>information clearly defining the different phases (Phase 2 and Phase 3) and a clear programme of how commissioning shall commence;</li> </ul>					
		<ul> <li>the expected durations and timescales for the completion of commissioning activities and commencement of site operations with waste;</li> </ul>					
		<ul> <li>the commissioning of key site infrastructure – new tanks, biogas upgrading plant;</li> </ul>					
		<ul> <li>information detailing the start of the digestion process and the measures to handle poor quality biogas;</li> </ul>					
		<ul> <li>information demonstrating that the reception building has been appropriately sealed to enable a negative pressure environment and the details of building smoke-testing;</li> </ul>					
		<ul> <li>management structure during commissioning – who has control over the plant operation, details of the acceptance testing and how this will be handed over into Willand O&amp;M control.</li> </ul>					
		<ul> <li>the expected emissions to the environment during the different stages of commissioning; and</li> </ul>					
		the measures to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions.					
		The commissioning shall be carried out in accordance with the commissioning plan as agreed and approved by the Environment Agency.					
		No waste shall be accepted at the installation unless the Environment Agency has given prior written permission under this condition.					
2	Odour abatement plant – Biofilter & carbon filter	During the commissioning of the odour abatement system, the operator shall undertake the monitoring of the parameters proposed for the site biofilter and the carbon filter (digestate separation building) detailed in					

Reference	Operation	Pre-operational measures
	(digestate separation building)	the Application (response to the Schedule 5 Notice dated 4 December 2020).
		At least 2 weeks before full operation with waste, the operator shall submit a report which includes the following aspects:
		<ul> <li>the outcome of the commissioning of the odour abatement plant;</li> </ul>
		<ul> <li>a demonstration that the proposed monitoring of the odour abatement plant is sufficient to ensure that the emissions from the installation will not cause annoyance beyond the site boundary;</li> </ul>
		<ul> <li>trigger levels to initiate remedial actions in the event the monitoring parameters are approaching exceedance; and</li> </ul>
		<ul> <li>procedures in place for the operation of the odour abatement plant and evidence that staff have received the necessary training.</li> </ul>
		The operator shall confirm completion of the works in writing to the Environment Agency and update the site EMS accordingly.
3	Secondary containment for new tanks	Prior to the acceptance of waste specified in Table S2.2 at the installation, the operator shall ensure that a review of the design, method of construction and integrity of the site secondary containment for the new tanks is carried out by a qualified structural engineer. The review shall compare the secondary containment against the standards set out in CIRIA C736 - Containment Systems for the Prevention of Pollution - secondary, tertiary and other measures for industrial and commercial premises or other relevant industry standard.
		The review shall include:
		physical condition of the secondary containment
		<ul> <li>the suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure;</li> </ul>
		<ul> <li>any work required to ensure compliance with the standards set out in CIRIA C736 or other relevant industry standard; and</li> </ul>
		a preventative maintenance and inspection regime
		A written report of the review shall be submitted to the Environment Agency detailing the review's findings and recommendations. Remedial action shall be taken to ensure that the secondary containment meets the standards set out in the technical guidance documents and implement the maintenance and inspection regime.
		No waste shall be accepted at the installation unless the Environment Agency has given prior written permission under this condition.

# Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels					
Raw materials and fuel description	Specification				
Vegetable matter (energy crops)	Substantially free of non-vegetable matter				
Silage /Energy crops	Substantially free of non-vegetable matter				

Table S2.2 Permitte	d waste types and quantities for anaerobic digestion				
Maximum quantity	Annual throughput of waste and non-waste feedstock shall not exceed 100,000 tonnes.				
Exclusions	<ul> <li>Wastes having any of the following characteristics shall not be accepted:</li> <li>separately collected loads of plastic unless the whole load is certified compostable to BS EN 13432</li> <li>co-mingled green and food waste containing more than 5% w/w plastic, unless the plastic is certified compostable to BS EN 13432</li> <li>food wastes containing more than 5% w/w plastic unless there is sufficient technology to remove non-compostable plastic prior to treatment from package food waste to a processing limit of 1% w/w or decreasing year on year by 2025.</li> <li>wastes containing wood-preserving agents or other biocides and post-consumer wood</li> <li>wastes containing persistent organic pollutants</li> <li>wastes containing Japanese Knotweed or other invasive plant species liste in the Alien Invasive Species Regulations 2014</li> <li>manures, slurries and spoiled bedding and straw from farms where animals have notifiable diseases as stipulated in the Animal By-Products (Enforcement) (England) Regulations 2013.</li> </ul>				
Waste code	Description				
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing				
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing				
02 01 01	sludges from washing and cleaning – vegetables, fruit and other crops				
02 01 02	animal tissue waste				
02 01 03	plant tissue waste				
02 01 06	animal faeces, urine and manure (including spoiled straw) only				
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin				
02 02 01	sludges from washing and cleaning				
02 02 02	animal tissue waste				
02 02 03	materials unsuitable for consumption or processing				
02 02 04	sludges from on-site effluent treatment				

Table S2.2 Permitted	d waste types and quantities for anaerobic digestion
Maximum quantity	Annual throughput of waste and non-waste feedstock shall not exceed 100,000 tonnes.
Exclusions	<ul> <li>Wastes having any of the following characteristics shall not be accepted:</li> <li>separately collected loads of plastic unless the whole load is certified compostable to BS EN 13432</li> <li>co-mingled green and food waste containing more than 5% w/w plastic, unless the plastic is certified compostable to BS EN 13432</li> <li>food wastes containing more than 5% w/w plastic unless there is sufficient technology to remove non-compostable plastic prior to treatment from package food waste to a processing limit of 1% w/w or decreasing year on year by 2025.</li> <li>wastes containing wood-preserving agents or other biocides and post-consumer wood</li> <li>wastes containing persistent organic pollutants</li> <li>wastes containing Japanese Knotweed or other invasive plant species listed in the Alien Invasive Species Regulations 2014</li> <li>manures, slurries and spoiled bedding and straw from farms where animals have notifiable diseases as stipulated in the Animal By-Products (Enforcement) (England) Regulations 2013.</li> </ul>
Waste code	Description
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
02 04	wastes from sugar processing
02 04 03	sludges from on-site effluent treatment
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 03	sludges from on-site effluent treatment
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 02	wastes from physico/chemical treatments of waste (including dechromatation,
	decyanidation, neutralisation)

Table S2.2 Permitte	d waste types and quantities for anaerobic digestion			
Maximum quantity	Annual throughput of waste and non-waste feedstock shall not exceed 100,000 tonnes.			
Exclusions	<ul> <li>Wastes having any of the following characteristics shall not be accepted:</li> <li>separately collected loads of plastic unless the whole load is certified compostable to BS EN 13432</li> <li>co-mingled green and food waste containing more than 5% w/w plastic, unless the plastic is certified compostable to BS EN 13432</li> <li>food wastes containing more than 5% w/w plastic unless there is sufficient technology to remove non-compostable plastic prior to treatment from package food waste to a processing limit of 1% w/w or decreasing year on year by 2025.</li> <li>wastes containing wood-preserving agents or other biocides and post-consumer wood</li> <li>wastes containing persistent organic pollutants</li> <li>wastes containing Japanese Knotweed or other invasive plant species listed in the Alien Invasive Species Regulations 2014</li> <li>manures, slurries and spoiled bedding and straw from farms where animals have notifiable diseases as stipulated in the Animal By-Products (Enforcement) (England) Regulations 2013.</li> </ul>			
Waste code	Description			
19 06	wastes from anaerobic treatment of waste			
19 06 03	liquor from anaerobic treatment of municipal waste (from a process that treats wastes which are listed in this table only)			
19 06 04	digestate from anaerobic treatment of source segregated biodegradable waste (from a process that treats wastes which are listed in this table only)			
19 06 05	liquor from anaerobic treatment of animal and vegetable waste (from a process that treats wastes which are listed in this table only)			
19 06 06	digestate from anaerobic treatment of animal and vegetable waste (from a process that treats wastes which are listed in this table only)			
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions			
20 01	separately collected fractions (except 15 01)			
20 01 08	biodegradable kitchen and canteen waste			
20 01 25	edible oil and fat			
20 02	garden and park wastes (including cemetery waste)			
20 02 01	biodegradable waste			
20 03	other municipal wastes			
20 03 01	mixed municipal waste – only separately collected biodegradable wastes of types listed within this table, Table S2.2			
20 03 02	waste from markets – allowed only if source segregated biodegradable fractions e.g. plant material, fruit and vegetables			

# **Schedule 3 – Emissions and monitoring**

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Point A1 on Drawing No: Emissions Plan dated	High temperature emergency flare stack [note 1]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	150 mg/m <sup>3</sup>	Average over sample period	[note 2]	BS EN 14792
10/02/2021]		Carbon monoxide	50 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	10 mg/m <sup>3</sup>			BS EN 12619
A2 [Point A2 on Drawing No: Emissions Plan dated 10/02/2021]	Gas chromatograph sample vent	No parameter set	No limit set			
A3 [Point A3 on Drawing No: Emissions Plan dated 10/02/2021]	Air dryer & carbon filter (digestate separation building)	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 <sup>3</sup>	Average over sample period	Once every 6 months	EN ISO 21877
		Odour concentration	No limit set		Once every 6 months	BS EN 13725
A4 [Point A4 on Drawing No: Emissions Plan dated	High temperature emergency flare stack [note 1]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	150 mg/m <sup>3</sup>	Average over sample period	[note 2]	BS EN 14792
10/02/2021]		Carbon monoxide	50 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	10 mg/m <sup>3</sup>			BS EN 12619
A5 [Point A5 on Drawing No: Emissions Plan dated 10/02/2021]	Gas chromatograph sample vent	No parameter set	No limit set			
A6 [Point A6 on Drawing No: Emissions	CO <sub>2</sub> exhaust stack (Biogas upgrading plant)	VOCs including methane	No limit set	Leak detection and repair	In accordance with written	BS EN15446

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Plan dated 10/02/2021]			umey	(LDAR) programme	management system	or mounda
A7 [Point A7 on Drawing No: Emissions Plan dated 10/02/2021]	Auxiliary boiler stack	No parameter set	No limit set			
A8 [Point A8 on Drawing No: Emissions Plan dated 10/02/2021]	Biofilter	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 <sup>3</sup>	Average over sample period	Once every 6 months	EN ISO 21877
		Odour concentration	No limit set		Once every 6 months	BS EN 13725
A9 [Point A9 on Drawing No: Emissions Plan dated 10/02/2021]	CO <sub>2</sub> exhaust stack (Biogas upgrading plant)	VOCs including methane	No limit set	Leak detection and repair (LDAR) programme	In accordance with written management system	BS EN15446
A10 [Point A10 on Drawing No: Emissions Plan dated 10/02/2021]	CHP engine 1 stack	No parameter set	No limit set			
A11 [Point A11 on Drawing No: Emissions Plan dated 10/02/2021]	Carbon filter (tanker fill exhaust)	No parameter set	No limit set			
P1 to P13 [Points P1 to P13 on Drawing No: Emissions Plan dated 10/02/2021]	Digester tanks/Hydrolysis tanks/Digestate storage tanks pressure relief valves	Biogas release and operational events	No limit set	Recorded duration and frequency	Daily inspection	

Note 1 – These emission limits are based on normal operating conditions and load - temperature  $0^{\circ}$ C (273K); pressure 101.3 kPa and oxygen 3%.

Note 2 – Following commissioning, 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.

Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Source	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W2 on site plan on Drawing No: Emissions Plan dated 10/02/2021, emission to Spratford stream	Site surface water /water from bunded areas	No parameter set	No limit set		Weekly	Visual assessment – no visible oil or grease
		Total organic carbon (TOC) [Note 1]	60 mg/l	Spot sample or flow- proportional composite sample	Once every month	BS EN 1484
		Chemical oxygen demand (COD) [Note 1]	180 mg/l	Spot sample or flow- proportional composite sample	Once every month	BS EN ISO 15705
		Total nitrogen	25 mg/l	Spot sample or flow- proportional composite sample	Once every month	BS EN ISO 11905-1 or BS EN 12260
		Total phosphorus	2 mg/l	Spot sample or flow- proportional composite sample	Once every month	EN ISO 5681-1 and - 2 or EN ISO 6878 or EN ISO 11885
		Total suspended solids	60 mg/l	Spot sample or flow- proportional composite sample	Once every month	BS EN 872

Note 1 – Either TOC or COD can be monitored. TOC is the preferred option, because its monitoring does not rely on the use of very toxic compounds.

Table S3.3 Process mor	nitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications	
Digester feed	рН	As described in	As described	Process	
(digestion process)	Alkalinity	site operating techniques	in site operating	monitoring to be recorded using a	
	Temperature	, tooquoo	techniques	SCADA system	
	Hydraulic loading rate	_		where relevant.	
	Organic loading rate				
	Volatile fatty acids concentration				
	Ammonia				
	Liquid /foam level				
Biogas in digester	Flow	Continuous	In accordance with EU weights and measures Regulations	Process monitoring to be recorded using a SCADA system where relevant.	
	Methane	Continuous	None specified	Gas monitors to be calibrated	
	CO <sub>2</sub>	Continuous	None specified	every 6 months or in accordance with the	
	O <sub>2</sub>	Continuous	None specified	manufacturer's recommendations.	
	Hydrogen sulphide	Daily	None specified		
	Pressure	Continuous	None specified		
Digestate batch	Volatile fatty acids concentration	One sample at the end of each	As described in site		
	Ammonia	batch (hydraulic retention time) cycle.	operating techniques		
Digesters and storage tanks	Integrity checks	Weekly	Visual assessment		
Digesters	Agitation /mixing	Continuous Systems controls. Yearly lithium or		Records maintained in daily operational records.	
	Tank capacity and sediment assessment	Once a year	thermal imaging	In accordance with design specification and tank integrity checks.	
Waste reception building or area; Digesters and storage tanks	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.	

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
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	In accordance with the LDAR programme	Leak detection and repair (LDAR) programme in accordance with permit condition 3.2.4.
CHP engine stack	VOCs including methane	Annually	BS EN 12619	Total annual VOCs emissions from the CHP engine 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	
	Exhaust gas flow		BS EN 16911-1	
Meteorological conditions	Wind speed, air temperature, wind direction	Continuous	Method as specified in management system	Conditions to be recorded in operational diary and records.
				Equipment shall be calibrated on a 4 monthly basis, in accordance with manufacturer's recommendations or as agreed in writing by the Environment Agency.
Emergency flares	Operating hours	Continuous	Recorded duration and frequency. Recording using a	Date, time and duration of use of auxiliary flare shall be recorded.

Table S3.3 Process mor	nitoring requirements			
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	Quantity of gas sent to emergency flare		SCADA system or similar system	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	Re-seating	Weekly inspection	Visual and gas pressure	Continuous gas pressure shall be monitored. Operator must ensure that valves are re-seated after release in accordance with the manufacturer's design.
	Maintenance	Written scheme of examination in accordance with condition 1.1.1	Written scheme of examination in accordance with condition 1.1.1	Continuous gas pressure shall be monitored. Operator must ensure that valves are re-seated after release in accordance with the manufacturer's design.
	Inspection calibration and validation report	In accordance with design and construction specifications or after over topping or foaming event		Operator must ensure that valves are re-seated after release, after a foaming event or sticking, build-up of debris, obstructions or damage.

Table S3.3 Process mor	nitoring requirements			
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
				Operator must ensure that pressure relief valve 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 and guidance in relation to The Pressure Systems Safety Regulations 2000 (PSSR).
Storage lagoons and storage tanks	Volume	Daily	Visual or flow metre measurement	750 mm freeboard must be maintained for storage lagoons.
Odour abatement plant			·	
Biofilter	Gas temperature – inlet and outlet	Daily	Temperature probe / Traceable to national standards	Odour abatement plant shall be regularly checked and maintained to ensure appropriate temperature and moisture content.  Odour abatement plant shall be managed in accordance with permit condition 3.3, the odour management plan and manufacturer's recommendations.
	Biofilter media moisture	Daily	Moisture meter or recognised industry method	
	Thatching /compaction	Weekly	Back pressure	
	Gas flow rate – inlet and outlet	Continuous	Gas flow meter / EN 16911-1 and MID for EN 16911-1	
	pH (biofilter drainage effluent)	Daily	pH metre	

Table S3.3 Process monitoring requirements  Emission point Parameter Monitoring Other				
reference or source or description of point of measurement	r ai ailletei	frequency	standard or method	specifications
	Efficiency assessment	Annual	Media health, air-flow distribution and emission removal efficiency (BS EN 13725 for odour removal)	Equipment shall be calibrated on a 4 monthly basis, or as agreed in writing by the Environment Agency.
	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 IC8 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 IC8 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.
	Odour concentration  – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	BS EN 13725	Action levels to be agreed on completion of IC8 as approved in writing by the Environment Agency.
				Action levels to be achieved in accordance with

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
				permit condition 3.2 and the odour management plan.
Carbon filter	Carbon bed temperature – inlet and outlet	Continuous	Temperature probe	Odour abatement plant shall be managed in
	Gas flow rate – inlet and outlet	Continuous	Gas flow meter	accordance with permit condition 3.3, the odour
	Moisture or humidity	Daily	Moisture meter	management plan and
	Back pressure	Weekly	Recognised industry method	manufacturer's recommendations.
	Efficiency assessment	Annual	Emission removal efficiency (BS EN 13725 for odour removal)	Carbon filters 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.
	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 IC8 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 IC8 as approved in writing by the Environment Agency.

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
				Action levels to be achieved in accordance with permit condition 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	Action levels to be agreed on completion of IC8 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.

Table S3.4 Bioaerosols monitoring requirements – ambient monitoring					
Location or description of point of measurement	Parameter	Bioaerosols action levels (CFU m <sup>-3</sup> )	Monitoring frequency	Monitoring standard or method	Other specifications
Upwind of the operational area, as described in the Technical Guidance Note M9	Total bacteria	1000 Note 1	Quarterly for the first year of operation and twice a year thereafter, unless another frequency is agreed in writing by the	In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at	As described in the Technical Guidance Note M9, including all the additional data
Downwind of the operational area, as described in the Technical Guidance Note M9	Aspergillus Fumigatus	500 Note 1	Environment Agency Note 2	regulated facilities.	requirements specified therein.

Note 1 - The bioaerosols action levels are only applicable at downwind sampling locations equivalent to the distance of the nearest sensitive receptor. Where these action levels are elevated, the operator must take action to mitigate the impact on sensitive receptors. Assessment of compliance will be based on risk and in line with guidance.

Note 2. Where the bioaerosols action levels are exceeded, then monitoring will remain quarterly until such time that it is demonstrated that the site has adequate mitigation for a 12 month period.

# 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 emergency flares Parameters as required by	A1, A4	Every 12 months	1 January	
condition 3.5.1.  Emissions to air from odour abatement plant  Parameters as required by condition 3.5.1.	A3, A8	Every 6 months	1 January, 1 July	
Emissions to water and land Parameters as required by condition 3.5.1	W2	Every 12 months	1 January	
Process monitoring Note 1 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	
Bioaerosols monitoring Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.4	Every 3 months or as agreed in writing by the Environment Agency	1 January, 1 April, 1 July, 1 October	

Note 1 – Continuous monitoring data to be made available to the Environment Agency on request in hard copy or electronic format.

Table S4.2 Annual production/treatment			
Parameter	Units		
Electricity generated	MWh		
Biomethane generated	tonnes or m <sup>3</sup>		
Whole digestate	tonnes		
Liquid digestate	tonnes or m <sup>3</sup>		
Solid digestate	tonnes		
Non-waste outputs	tonnes		

Table S4.3 Performance parameters			
Parameter	Frequency of assessment	Units	
Water usage	Annually	tonnes or m <sup>3</sup>	
Energy usage	Annually	MWh	
Raw material usage	Annually	tonnes or m <sup>3</sup>	

Table S4.3 Performance parameters			
Parameter	Frequency of assessment	Units	
Emergency flare operation	Annually	hours	
Electricity exported	Annually	MWh	
Biomethane exported	Annually	tonnes or m <sup>3</sup>	
CHP engine usage	Annually	hours	
CHP engine efficiency	Annually	%	
Auxiliary boiler usage	Annually	hours	

Table S4.4 Reporting forms			
Media/parameter	arameter Reporting format		
Bioaerosols	As specified in the Technical Guidance Note M9 or other form as agreed in writing by the Environment Agency		
Air	Form air 1 or other form as agreed in writing by the Environment Agency	24/03/2021	
Process monitoring	Form process 1 or other form as agreed in writing by the Environment Agency	24/03/2021	
Water	Form water 1 or other form as agreed in writing by the Environment Agency	24/03/2021	
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	24/03/2021	
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	24/03/2021	
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	24/03/2021	
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	
	any malfunction, breakdown or failure of equipment or techniques, ince not controlled by an emission limit which has caused, is 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 t	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 l	imit	
To be notified within 24 hours of	detection unless	s otherwise specified	l below
Measures taken, or intended to be taken, to stop the emission			
Time periods for notification follo	owing detection	of a breach of a limit	
Parameter			Notification period
(c) Notification requirements for	the detection of	any significant adve	rse 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 submit  Any more accurate information on t		on as practica	ıble
notification under Part A.			
Measures taken, or intended to be a recurrence of the incident	taken, to prevent		
Measures taken, or intended to be limit or prevent any pollution of the which has been or may be caused	environment		
The dates of any unauthorised emit facility in the preceding 24 months.			
Name*			
Post			
Signature			
Date			

<sup>\*</sup> authorised to sign on behalf of the operator

## Schedule 6 - Interpretation

"accident" means an accident that may result in pollution.

"ADQP" means Anaerobic Digestion Quality Protocol

"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 methanerich 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.

"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.

"bioaerosols action levels" mean the acceptable bioaerosols concentrations at the nearest sensitive receptor, or at an equivalent distance downwind of the biowaste treatment operations, which are attributable to the biowaste treatment operations. The acceptable concentrations are respectively 1000 and 500 CFU m<sup>-3</sup> for total bacteria and Aspergillus fumigatus. Where these action levels are elevated, the operator must take action to mitigate the impact on sensitive receptors.

"Biodegradable" means a material is capable of undergoing biological anaerobic or aerobic degradation leading to the production of CO<sub>2</sub>, H<sub>2</sub>O, 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.

"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.

"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.

"compost" means a 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.

"compostable plastics" means plastics that are certified to meet the standards of EN 13432, EN 14995 or equivalent and is capable of breaking down by microbial digestion to create compost.

"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".

"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.

"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.

"Industrial Emissions Directive" 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.

"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.

"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.

"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.

"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.

"treated wood" means any wood that has been chemically treated (e.g. to enhance or alter the performance of the original wood). Treatments may include penetrating oils, tar oil preservatives, water-borne preservatives, organic-based preservatives, boron and organo-metallic based preservatives, boron and halogenated flame retardants and surface treatments (including paint and venner).

"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" 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.

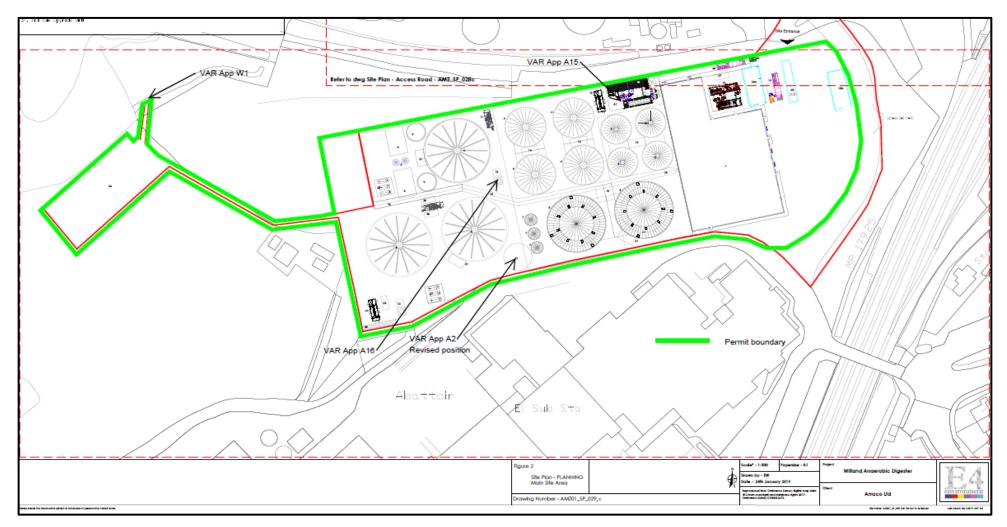
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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 calendar year ending 31 December.

## Schedule 7 – Site plan



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**END OF PERMIT**