

# Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

GWE Biogas Ltd

Sandhill Biogas Plant Sandhill Garton Road Kirkburn Driffield East Yorkshire YO25 9DR

#### Variation application number

EPR/TP3835KE/V011

#### Permit number

EPR/TP3835KE

# Sandhill Biogas Plant Permit number EPR/TP3835KE

## 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 notice/statutory review

- Construction of two additional primary digesters, termed Digester 6 and Digester 7
- Installation of an additional low temperature flare and upgraded desulphurisation plant
- Installation of a Modular Carbon Capture and upgrade System (CCUS) including storage
- Installation of vehicle refuelling equipment
- An increase in capacity up to 211,000 tonnes per annum
- Construction of an Agricultural Silage Clamp

This variation will enable the on-site storage of up to 15,000 tonnes of whole crop silage. The installation of the two additional digesters will facilitate the increase of the processing capacity of the AD facility to 211,000 tonnes per annum. This increase in anaerobic digestion capacity necessitates the installation of an additional new low temperature flare and higher capacity desulphurisation plant to support the increased volume of biogas to be produced. The proposed installation of the vehicle refuelling equipment enables the facility to address the issues of increasing energy prices by mitigating the reliance on external providers and have the convenience of being able to refuel onsite using its own compressed biogas. The proposed installation of the CCUS technology enables the facility to capture the CO2 produced as part of the anaerobic decomposition process. It is anticipated that the system will capture approximately 8,000 tonnes of CO2 per annum from the biogas to biomethane upgrading process. The captured CO2 will be utilised within the food and beverage industry

#### Brief description of the process

The installation is located in Kirkburn, approximately 4 km to the west of Driffield and 3 km to the south of Garton-on-the-Wolds. The site is bounded to the northwest by Eastburn Warren Farm and south west by High Battleburn, to the west by a green lane footpath and bridleway with hedgerow trees, and to the east by land used for military training. The surrounding area is predominantly farmland.

The installation is an anaerobic digestion facility which treats non-hazardous organic waste derived from the food chain sector. The biogas obtained from the anaerobic digestion of permitted wastes will be used to generate electricity and heat from four Combined Heat and Power (CHP) engines with an aggregated thermal input of 10.99 MWth. Exhaust CO2 from the biogas unit is fed to the bolt-on-system, where CO2 compressor units increase the gas pressure, removing the condensate in the process. Trace impurities and moisture are then removed. The gas, now purified, is led into the cooling system where the CO2 is liquefied. The off-gas isthen brought back to the inlet of the upgrading unit.

The heat produced from the engines is utilized during pasteurization of waste as required by the Animal By-Products Regulations. The digestate from the process will be used as a bio-fertilizer.

Main releases to the environment are to air and groundwater. There are no point source emissions to surface water or sewer from the installation. Whole digestate from the anaerobic digestion activity is stored in a lagoon until required for use within the facility or spread to land.

There are no European habitat sites within 10 km from the installation. One Site of Special Scientific Interest (River Hull Headwaters) has been identified 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 received EPR/TP3835KE/A001	Duly made 17/11/2009	Application for an anaerobic digestion facility including combustion of biogas.	
Additional information received	05/05/2010 24/05/2010 01/07/2010 19/07/2010 28/07/2010 30/07/2010 19/08/2010 24/08/2010	Additional supporting information on several aspects of the application.	
Permit determined EPR/TP3835KE	09/09/2010	Permit issued to GWE Biogas Ltd.	
Environment Agency initiated variation determined EPR/TP3835KE/V002	04/04/2013	Variation to implement the changes introduced by the Industrial Emissions Directive.	
Application EPR/TP3835KE/V003 (variation and consolidation)	Duly made 09/07/2014	Variation application to update the permit to include Industrial Emissions Directive specific conditions and include additional waste codes.	
Variation determined EPR/TP3835KE	21/08/2014	Varied and consolidated permit issued in modern conditions format.	
Application EPR/TP3835KE/V004 (variation)	Duly made 05/08/2015	Variation application to increase annual tonnage throughput.	
Variation determined EPR/TP3835KE	22/09/2015	Variation issued.	
Application EPR/TP3835KE/V005 (variation)	08/02/2016	Application returned.	
Application EPR/TP3835KE/V006 (variation)	11/11/2016	Application withdrawn.	
Application EPR/TP3835KE/V007 (variation and consolidation)	Duly made 01/06/2017	Application to add a fourth CHP plant and increase annual throughput.	
Additional information received	19/09/2017	Revised odour management plan received.	
Variation determined EPR/TP3835KE	07/11/2017	Varied permit issued.	
Application EPR/TP3835KE/V009 (variation and consolidation)	Duly made 21/05/2018	Application to add a lagoon and increase annual throughput.	
Additional information received	03/08/2018	Response to Schedule 5 notice dated 31/07/2018, including operating techniques for the proposed lagoon, revised odour management plan and details of site drainage.	
Additional information received	26/09/2018	Response to Schedule 5 notice dated 05/09/2018, including details on the proposed lagoon, revised odour management plan and site boundary plan.	

Status log of the permit			
Description	Date	Comments	
Additional information received	23/10/2018	Response to request for information dated 16/10/2018, including details on the proposed underground pipework leak detection system.	
Additional information received	05/12/2018	Updated site plan showing installation boundary and emission points.	
Additional information received	19/12/2018	Response to request for information dated 25/10/2018, including information related to the revised odour management plan.	
		Response to request for information dated 13/11/2018 including information related to the underground pipework and leak detection system.	
Additional information received	25/01/2019	Response to request for information dated 21/01/2019 including information related to the underground pipework leak detection system.	
Variation determined EPR/TP3835KE	22/02/2019	Varied and consolidated permit issued.	
Application EPR/TP3835KE/V009 (variation and consolidation)	Duly made 23/04/2021	Application to increase the annual throughput from 125,000 tonnes to 150,000 tonnes, add a fifth 5,500m <sup>3</sup> digester, add a biogas upgrading plant and construct reception hall extension.	
Additional information received	13/07/2021 20/10/2021	Schedule 5 Response including information about secondary containment, reception area storage capacity, feedstock rejection criteria and pasteurisation tanks. Submission of updated Odour Management Plan.	
Variation determined EPR/TP3835KE	07/01/2022	Varied and consolidated permit issued.	
Regulation 61 Notice sent to Operator	22/04/2021	Regulation 61 Notice requiring information for statutory review of permit.	
Regulation 61 Notice response	06/07/2023	Response received from the operator.	
Application EPR/TP3835KE/V010 (variation and consolidation)	Environment Agency Initiated Variation	Statutory review of permit occasioned by Waste Treatment BAT Conclusions published on 17 August 2018.	
Environment Agency Biowaste Treatment Sector Review Permit reviewed Variation determined EPR/TP3835KE (Billing Ref: TP3835KE)	18/10/2023	Varied and consolidated permit issued.	
Application EPR/TP3835KE/V011 (variation)	28/08/2023	Variation application to allow Construction of two additional primary digesters, Installation of an additional low temperature flare and desulphurisation plant, Installation of a Modular Carbon Capture and upgrade System (CCUS) including storage, Installation of vehicle refuelling equipment, an increase in capacity up to 211,000 tonnes per annum, Construction of an Agricultural Silage Clamp	

Status log of the permit			
Description	Date	Comments	
Additional information received	17/05/2024	Response to information request, including details on Modular Carbon Capture and upgrade System (CCUS).	
Additional information received	27/01/2025	Response to information request, including details on vehicle refuelling equipment.	
Variation determined EPR/TP3835KE	05/03/2025	Variation issued.	

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/TP3835KE

#### Issued to

GWE Biogas Ltd ("the operator")

whose registered office is

Sandhill Garton Road Kirkburn Driffield East Yorkshire YO25 9DR

company registration number 06600650

to operate a regulated facility at

Sandhill Biogas Plant Sandhill Garton Road Kirkburn Driffield East Yorkshire YO25 9DR

to the extent set out in the schedules.

The notice shall take effect from 05/03/2025

Name	Date
Peter Maksymiw	05/03/2025

Authorised on behalf of the Environment Agency

#### Schedule 1

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

#### Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

## Permit

## The Environmental Permitting (England and Wales) Regulations 2016

#### **Permit number**

#### EPR/TP3835KE

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/TP3835KE/V011 authorising,

GWE Biogas Ltd ("the operator"),

whose registered office is

Sandhill Garton Road Kirkburn Driffield East Yorkshire YO25 9DR

company registration number 06600650

to operate an installation at

Sandhill Biogas Plant Sandhill Garton Road Kirkburn Driffield East Yorkshire YO25 9DR

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

Name	Date
Peter Maksymiw	05/03/2025

Authorised on behalf of the Environment Agency

# Conditions

## 1 Management

#### 1.1 General management

- 1.1.1 The operator shall manage and operate the activities:
  - (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
  - (b) using sufficient competent persons and resources.
- 1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.
- 1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.
- 1.1.4 The operator shall comply with the requirements of an approved competence scheme.

## 1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR12). 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 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR12). 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 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR12). 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.
- 2.1.4 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR12). Waste authorised by this permit shall be clearly distinguished from any other waste on the site.

## 2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in red 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 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR12). Waste preacceptance 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.

## 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 table S3.1.
- 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.
- 3.4.2 The operator shall:
  - (a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
  - (b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

## 3.5 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
  - (a) point source emissions specified in tables S3.1;
  - (b) process monitoring specified in table S3.2.
- 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 table S3.1 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 Pests

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

#### 3.6.2 The operator shall:

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

#### 3.7 Fire prevention

- 3.7.1 The operator shall take all appropriate measures to prevent fires on site and minimise the risk of pollution from them including, but not limited to, those specified in any approved fire prevention plan.
- 3.7.2 The operator shall:
  - a) if notified by the Environment Agency that the activities are giving rise to a risk of fire, submit to the Environment Agency for approval within the period specified, a fire prevention plan which prevents fires and minimises the risk of pollution from fires;
  - b) implement the fire prevention plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 3.7.3 The operator shall undertake a DSEAR assessment and maintain an accident management plan.

## 4 Information

#### 4.1 Records

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

## 4.2 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 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR12). A report or reports on the performance of the activities over the previous year shall be submitted to the Environment

Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

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

## 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

Activity	Activity listed in Schedule	Description of openified	Limits of specified	
reference	1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	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 seven tanks followed by burning of biogas produced from the process.	
			Waste types suitable for acceptance are limited to those specified in Table S2.2.	
	Directly Associated Activity	Directly Associated Activity		
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 fitted with appropriate odour abatement and on an impermeable surface with a	

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
			sealed drainage system including shredding, sorting screening, compaction, baling, mixing and maceration.
			Post-treatment of digestate in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system, including screening 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 seven 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 four combined heat and power (CHP) engine(s) with an aggregated thermal input of 10.99 MWth.
			Combustion of diesel in a back-up diesel generator with a thermal input of 1 MWth. A back-up generator

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
			operated for the purpose of testing for no more than 50 hours per year and no more than 500 hours operation in an emergency.
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 engines.
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 Grid.	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 engines and/or emergency flare.
AR7	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, propane, ferric chloride, activated carbon, diesel and agricultural feedstock.	From the receipt of raw materials to despatch for use within the facility. Agricultural silage clamp storing up to 15,000 tonnes of whole crop silage.
AR8	Gas storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	Storage of biogas produced from on-site anaerobic digestion of permitted waste in roof space of seven digesters and the dual purpose tank.
			From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility or transported to a third-party site using a vehicle refuelling station consisting of a fuel pump equipped with operational storage for the compressed gas and a compressor hut. Compressed gas is pumped

Table S1.1 ac	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	
			into appropriate transportation vehicles.	
AR9	Digestate storage	R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	From the receipt of processed uncertified digestate produced from the on-site anaerobic digestion process to despatch for use off-site.	
			Storage of processed uncertified liquid digestate in two storage tanks.	
AR10	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water in one surface water lagoon.	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.	
AR11	Air treatment	Collection and treatment of air from the buildings or plant using abatement system (biolfilter) prior to release to atmosphere.	From the collection of air from site processes to treatment and release of treated air to atmosphere.	
AR12	Carbon dioxide (CO <sub>2</sub> ) capture, storage and recovery	Liquefaction of CO <sub>2</sub> through a process of compression, cooling and condensing of CO <sub>2</sub> gas.	From the receipt of CO <sub>2</sub> from the on-site gas upgrading plant (AR6) to the recovery of liquid CO <sub>2</sub> and its removal off-site via tanker. Storage of recovered CO <sub>2</sub> in one enclosed tank.	

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Application EPR/TP3835KE/A001	Response to question 5a – Technical Standards, Part B of the application form.	17/11/2009	
Response to request for additional information	Response to information detailing H1 Part 2 risk assessment, site plans, permeate water quality and flow, site process water and water drainage queries.		
	Information regarding the site Environmental Management System.	01/07/2010	
	Information regarding annual raw material usage.	20/07/2010	
	Information detailing site accident management plan.	30/07/2010	
	Information detailing overall process description.	19/08/2010	
Variation application EPR/TP3835KE/V004	Application forms C2 and C3 and relevant supporting information.	05/08/2015	

Table S1.2 Operating techniques			
Description	Parts	Date Received	
Response to Schedule 5 notice	Response to information detailing waste reception and storage.	21/09/2015	
Application EPR/TP3835KE/V007	Application supporting documents; Non-technical summary	16/01/2017	
Application EPR/TP3835KE/V008	Application supporting documents: EPR-A02 Site Capacity Assessment EPR-A04 Lagoon Design Statement EPR-A06 Accident Management Plan	28/03/2018	
Response to Not Duly	BAT assessment	17/05/2018	
Made letter dated 08/05/2018.	EPR-A03 Environmental Risk Assessment	21/05/2018	
Response to Schedule 5 notice dated 31/07/2018.	Response to information detailing operating techniques for the proposed lagoon, revised odour management plan and details of site drainage.	03/08/2018	
Response to Schedule 5 notice dated 05/09/2018.	Response to information detailing the proposed lagoon and revised odour management plan.	26/09/2018	
Response to request for additional information dated 16/10/2018.	Response to information including details on the proposed underground pipework leak detection system.	23/10/2018	
Response to request for additional information dated 25/10/2018.	Response to information detailing the written response to questions and revised odour management plan.	19/12/2018	
Response to request for additional information dated 13/11/2018.	Response to information detailing the underground pipework and leak detection system.	19/12/2018	
Response to request for additional information dated 21/01/2019.	Response to information detailing the underground pipework and leak detection system.	25/01/2019	
Application EPR/TP3835KE/V009	Non-technical summary, Document ref. EPR-A01 dated 14/12/2020	23/04/2021	
	Environmental Risk Assessment, Document ref. EPR-A03 dated 14/12/2020		
	Fugitive Emissions Management Plan, Version 06, December 2020		
	Integrated Standard Operating Procedures, Version 06, 14/12/2020		
	Accident Management Plan, Version 05, December 2020		
	Noise and Vibration Management Plan, Document ref. EPR- A08 dated 14/12/2020		
Response to Schedule 5 notice dated 24/06/2021	Basic Site Plan, July 2021 detailing the maximum storage capacities in the new reception building.	13/07/2021	
	Responses to questions 3, 5, 6 and 7 as detailed in Schedule 5 Accompanying Document v.3.0	20/10/2021	
	Odour Management Plan, Anaerobic Digestion Facility, Kirkburn, East Yorkshire, Version 10, October 2021.		
Response to Regulation	Annex 1 Returns Spreadsheet	Received	
61 Notice dated 22/04/2021	<ul> <li>Compliance and operating techniques identified in response to BAT Conclusions 1 to 8, 10 to 24 and 33</li> </ul>	06/07/2023	

Table S1.2 Operating techniques			
Description	Parts	Date Received	
	to 38 in the Waste Treatment BREF published on 17 August 2018.		
Variation application EPR/TP3835KE/V011	<ul> <li>Application supporting documents:</li> <li>Site Capacity Assessment</li> <li>Environmental Risk Assessment</li> <li>Fugitive Emissions Management Plan</li> <li>Accident Management Plan</li> <li>Odour Management Plan</li> <li>Noise and Vibration Management Plan</li> <li>GWE Permit Manual</li> </ul>	Received 28/08/2023	
Additional information emails dated 17/05/2024 27/01/2025 and 28/01/2025	<ul> <li>Process Description CO2 Bolt-on Recovery Plant</li> <li>Response to information request regarding vehicle refuelling station</li> <li>Basic Site Plan</li> </ul>	Received 28/01/2025	

Reference	Requirement	Date
IC1	<ul> <li>The operator shall submit a revised odour management plan to the Environment Agency for approval with regard to Environment Agency's H4 Odour Management guidance. The revised plan shall include: <ul> <li>A section detailing the inventory of odorous materials. The inventory shall include:</li> <li>Odour potential for materials as received (age and source)</li> <li>Materials produced on site (digestate and leachate)</li> <li>Quantities of odorous materials on site at any given time</li> </ul> </li> <li>A section which identifies the nearest sensitive receptors and shall include: <ul> <li>Area map indicating the location of the sensitive receptors and distances from the site</li> </ul> </li> <li>A revised monitoring section which: <ul> <li>Defines the individual or individuals who are responsible for daily sniff testing. It must demonstrate how the individuals remain sensitive to on-site odours.</li> <li>Defines the intensity of odours monitored and propose action levels to trigger remedial actions.</li> <li>Describes control measures where daily sniff testing register odours above the established action levels.</li> </ul> </li> </ul>	Completed.
IC2	The operator shall carry out a monitoring study 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 point A7 during normal operation, having regard to the Environment Agency technical guidance, <i>Monitoring stack emissions: environmental permits</i> and to MCERTS standards. As a minimum, two separate monitoring campaigns in a year shall be completed (one monitoring	Completed.

Reference	mprovement programme requirements  Requirement Date					
Reference	survey six months following commissioning of the biogas upgrading	Date				
	plant).					
	The pollutants to be monitored shall include total volatile organic					
	compounds; and hydrogen sulphide.					
IC3	Following the completion of IC2, the operator shall undertake an emissions impact assessment of point source releases to air from point A7, using the information obtained through the emissions monitoring. The emissions impact assessment report and all associated monitoring reports and assessments shall be submitted in writing to the Environment Agency for review.					
	The emissions impact assessment shall, as a minimum, include:					
	<ul> <li>reports showing details of the monitoring undertaken and the results obtained;</li> </ul>					
	<ul> <li>results of the assessment of long and short term impacts from the emissions in accordance with Environment Agency Guidance – Air emissions risk assessment for your environmental permit</li> </ul>					
	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.					
IC4	The operator shall carry out a review of the abatement plant on site once the new reception building has been connected to the existing abatement plant and waste is accepted in the new building, 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.	Completed.				
	The operator shall submit a written report to the Environment Agency following this review for assessment and approval.					
	The report shall include but not limited to the following aspects:					
	Full investigation and characterisation of the waste gas streams.					
	<ul> <li>Abatement stack monitoring results (not limited to odour and ammonia)</li> </ul>					
	Abatement process monitoring results (not limited to odour and ammonia)					
	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>					
	Timescales for implementation of improvements to the abatement plant					
	The operator shall implement the improvements in line with the timescales as approved by the Environment Agency.					
Improvemen	t condition for primary containment					
IC5	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 extent design specification and condition of primary containment systems where polluting liquids and solids are being stored, treated, and/or handled.	Completed.				
	The plan shall include:					

Reference	Requirement Date					
	<ul> <li>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;</li> <li>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</li> <li>a preventative maintenance and inspection regime</li> </ul>					
	Agency's written approval.					
Improvemen	t condition for storage lagoon design including lagoon cover					
IC6	The operator shall submit a written 'storage lagoon 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 the site lagoon(s) where digestate is being stored, treated, and/or handled.	Completed.				
	The inspection shall consider, but not be limited to, the transfer pipework/pumps, and liners underlying the storage lagoon.					
	<ul> <li>The plan shall include:</li> <li>an assessment of the physical condition of the storage lagoon, using a Written Scheme of Examination and the suitability for providing containment when subjected to the dynamic and static loads caused by the digestate;</li> <li>a program of works with timescales for the implementation of individual improvement measures necessary for the storage lagoon to comply with CIRIA C736 (2014) guidance, or equivalent.</li> </ul>					
	a preventative maintenance and inspection regime					
	<ul> <li>Existing cover arrangements on storage lagoons used to store digestate to minimise odour, ammonia and methane emissions</li> <li>The plan shall be implemented in accordance with the Environment</li> </ul>					
	Agency's written approval.					
Improvemen	t condition for operational contingency storage capacity					
IC7	The operator shall provide a written "operational contingency storage plan" and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of a review of the current storage of digestate produced from site operations. The review shall examine site contingency arrangements in the event of closed landspreading periods, extreme weather conditions, site closure, disease outbreak etc.	Completed.				
	The contingency storage plan shall include:					
	<ul> <li>Additional storage capacity on-site (at least 2 months storage) and storage capacity off-site;</li> </ul>					
	<ul> <li>Identification of alternative outlets for digestate – identify companies /permitted waste facilities that would be able to manage the digestate output, taking into account their permits and capacity constraints.</li> </ul>					

Table S1.3 In	nprovement programme requirements	
Reference	Requirement	Date
	The plan shall be implemented in accordance with the Environment Agency's written approval.	
Improvemen	t condition for review of effectiveness of abatement plant	
IC8	<ul> <li>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.</li> <li>The operator shall submit a written report to the Environment Agency following this review for assessment and approval.</li> <li>The report shall include but not limited to the following aspects: <ul> <li>Full investigation and characterisation of the waste gas streams.</li> <li>Abatement stack monitoring results (not limited to odour and ammonia)</li> <li>Abatement process monitoring results (not limited to odour and ammonia)</li> <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</li> </ul> </li> </ul>	Completed.
	<ul> <li>ammonia).</li> <li>Odour monitoring results at the site boundary</li> <li>Records of odour complaints and odour related incidents</li> <li>Recommendations for improvement including the replacement or upgrading the abatement plant</li> <li>Timescales for implementation of improvements to the abatement plant</li> <li>The operator shall implement the improvements in line with the timescales of an analysis.</li> </ul>	
	timescales as approved by the Environment Agency.	
Improvemen	t condition for assessment of methane slip	1
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.	Completed.

# Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels				
Raw materials and fuel description	Specification			
Fuel oil	Sulphur content not exceeding 0.1% by mass.			
Vegetable matter (energy crops)	Substantially free of non-vegetable matter			
Maize silage	Substantially free of non-vegetable matter			

Maximum quantity	Annual throughput shall not exceed 211,000 tonnes						
Exclusions	Wastes having any of the following characteristics shall not be accepted:						
	<ul> <li>biodegradable wastes that is significantly contaminated with non- compostable or digestible contaminants, in particular plastic and litter shall be no more than 5% w/w and shall be as low as reasonably practicable by 31 December 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 Invasive Species (Amendment etc.) (EU Exit) Regulations 2019</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> <li>pest infested waste</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 fully biodegradable animal bedding)						
02 01 07	wastes from forestry						
02 01 99	wastes not otherwise specified – spent mushroom compost from commercial mushroom growing 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, peeling, centrifuging and separation including wash waters and sludges from secondary food processing or the cook chill sector						

02 02 03	materials unsuitable for consumption or processing including animal gut contents
02 02 04	sludges from on-site effluent treatment including sludges from gelatine production
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 (including sludge from production of edible fats and oils, seasoning residues, molasses residues, residues from production of potato, corn or rice starch only)
02 03 02	wastes from preserving agents
02 03 04	materials unsuitable for consumption or processing (including waste from production of edible fats and oils, seasoning residues, molasses residues, residues from production of potato, corn or rice starch only)
02 03 05	sludges from on-site effluent treatment (including sludge from production of edible fats and oils, seasoning residues, molasses residues, residues from production of potato, corn or rice starch only)
02 04	wastes from sugar processing
02 04 03	sludges from on-site effluent treatment – sludges from the processing of sugar
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing – biodegradable wastes derived from the processing of dairy products only
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 – biodegradable wastes from the processing of materials used in bakery and confectionery
02 06 03	
	sludges from on-site effluent treatment – sludges from the processing of materials used in baking and confectionery
02 07	
<b>02 07</b> 02 07 01	used in baking and confectionery         wastes from the production of alcoholic and non-alcoholic beverages (except
	used in baking and confectionery         wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)         wastes from washing, cleaning and mechanical reduction of raw materials – biodegradable wastes from the processing of the raw materials used in the production of such beverages only (wastes from the production of alcoholic and
02 07 01	used in baking and confectionery         wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)         wastes from washing, cleaning and mechanical reduction of raw materials – biodegradable wastes from the processing of the raw materials used in the production of such beverages only (wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa))         wastes from spirits distillation – spent grains, hops and whisky filter sheets and cloths, yeast and yeast like residues, sludge from production process, or malt
02 07 01	used in baking and confectionery         wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)         wastes from washing, cleaning and mechanical reduction of raw materials – biodegradable wastes from the processing of the raw materials used in the production of such beverages only (wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa))         wastes from spirits distillation – spent grains, hops and whisky filter sheets and cloths, yeast and yeast like residues, sludge from production process, or malt husks, malt sprouts, yeasts and yeast-like residues only         materials unsuitable for consumption or processing – biodegradable wastes from the production of such beverages only (wastes from the production of such beverages only (wastes from the production of such beverages only
02 07 01 02 07 02 02 07 04	used in baking and confectionery         wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)         wastes from washing, cleaning and mechanical reduction of raw materials – biodegradable wastes from the processing of the raw materials used in the production of such beverages only (wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa))         wastes from spirits distillation – spent grains, hops and whisky filter sheets and cloths, yeast and yeast like residues, sludge from production process, or malt husks, malt sprouts, yeasts and yeast-like residues only         materials unsuitable for consumption or processing – biodegradable wastes from the production of such beverages only (wastes from the production of such beverages only (wastes from the production of alcoholic beverages only coffee, tea and cocoa))         sterials unsuitable for consumption or processing – biodegradable wastes from the processing of the raw materials used in the production of such beverages only (wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa))         sludges from on-site effluent treatment – sludges from the production of alcoholic

04 01 01	fleshings and lime split wastes
04 01 05	tanning liquor free of chromium
04 01 07	sludges not containing chromium
04 02	wastes from the textile industry
04 02 10	
04 02 10 07	organic matter from natural products, e.g. grease, wax Wastes from organic chemical processes
07 01	wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
07 01 08*	glycerol waste from bio-diesel manufacture from non-waste vegetable oils only
07 02	wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 13	waste plastic
15	Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
15 01	packaging (including separately collected municipal packaging waste)
15 01 01	paper and cardboard packaging (excluding veneers, plastic coatings or laminates) certified to EN 13432 or equivalent certified compostable standard
15 01 02	plastic packaging – compostable plastics only certified to EN 13432 or equivalent certified compostable or digestible standard
15 01 03	wooden packaging – virgin timber only
15 01 05	composite packaging meeting EN 13432 or equivalent certified compostable or digestible standard
16	Wastes not otherwise specified in the list
16 10	aqueous liquid wastes destined for off-site treatment
16 10 02	liquor/leachate from a composting process that accepts waste input types listed in this table only and in compliance with Animal By-Products Regulations
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)
19 02 03	premixed wastes composed of waste types listed within this table, Table S2.2 only
19 02 06	sludge types from waste listed within this table, Table S2.2, that have been heat treated only
19 02 10	glycerol not designated as hazardous i.e. excludes EWC code 19 02 08
19 05	wastes from aerobic treatment of solid wastes
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 06	wastes from anaerobic treatment of waste

19 06 03	liquor from anaerobic treatment of municipal waste (from a process that accepts wastes which are listed in this table only) and made up of previously pasteurised and stabilised batches only
19 06 04	digestate from anaerobic treatment of source segregated biodegradable waste (from a process that accepts wastes which are listed in this table only) and made up of previously pasteurised and stabilised batches only
19 06 05	liquor from anaerobic treatment of animal and vegetable waste (from a process that accepts wastes which are listed in this table only) and made up of previously pasteurised and stabilised batches only
19 06 06	digestate from anaerobic treatment of animal and vegetable waste (previously digested sewage sludge only)
19 08	wastes from waste water treatment plants not otherwise specified
19 08 09	grease and oil mixture from oil/water separation containing only edible oil and fats
19 08 12	sludges from biological treatment of industrial waste water (from a process that treats wastes which are listed in this table only).
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	waste types listed in this table, Table S2.2, that have been subjected to mechanical treatment only (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 01	paper and cardboard (excluding veneers, plastic coatings or laminates) meeting EN 13432 or equivalent certified compostable or digestible packaging only
20 01 08	biodegradable kitchen and canteen waste containing compostable plastics meeting EN 13432 or equivalent certified compostable or digestible packaging (Category 3 ABPR waste only)
20 01 25	edible oil and fat
20 01 38	untreated wood where no non-biodegradable coating or preserving substance is present
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
CHP engine 1 stack	CHP engine 1 stack [note 1]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500 mg/m <sup>3</sup>	Average over sample period	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m <sup>3</sup> [note 2]			BS EN 14791 or
		Sulphur dioxide	162 mg/m <sup>3</sup> [note 3]			CEN TS 17021 or by calculation based on fuel sulphur
		Carbon monoxide	1400 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	No limit set			BS EN 12619
CHP engine 2 stack	CHP engine 2 stack [note 1]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500 mg/m <sup>3</sup>	Average over sample period	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m <sup>3</sup> [note 2]			BS EN 14791 or
		Sulphur dioxide	162 mg/m <sup>3</sup> [note 3]			CEN TS 17021 or by calculation based on fuel sulphur
		Carbon monoxide	1400 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	No limit set			BS EN 12619
CHP engine 3 stack	CHP engine 3 stack [note 1]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500 mg/m <sup>3</sup>	Average over sample period	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m <sup>3</sup> [note 2]			BS EN 14791

Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
		Sulphur dioxide	162 mg/m <sup>3</sup> [note 3]			or CEN TS 17021 or by calculation based on fuel sulphur
		Carbon monoxide	1400 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	No limit set			BS EN 12619
CHP engine 4 stack	CHP engine 4 stack [note 1]	Oxides of Nitrogen (NO and NO <sub>2</sub> expressed as NO <sub>2</sub> )	500 mg/m <sup>3</sup>	Average over sample period	Annual	BS EN 14792
		Sulphur dioxide	350 mg/m <sup>3</sup> [note 2]			BS EN 14791 or
		Sulphur dioxide	162 mg/m <sup>3</sup> [note 3]			CEN TS 17021 or by calculation based on fuel sulphur
		Carbon monoxide	1400 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	No limit set			BS EN 12619
Emergency flare stack 1	Emergency flare stack [note 4]	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 5]	BS EN 14792
		Carbon monoxide	50 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	10 mg/m <sup>3</sup>			BS EN 12619
Emergency flare stack 2	Emergency flare stack [note 4]	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 5]	BS EN 14792
		Carbon monoxide	50 mg/m <sup>3</sup>			BS EN 15058
		Total VOCs	10 mg/m <sup>3</sup>			BS EN 12619

Table S3.1	Table S3.1 Point source emissions to air – emission limits and monitoring requirements							
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method		
Biogas upgrading plant stack	Biogas upgrading plant stack	VOCs including methane	No limit set	Leak detection and repair (LDAR) programme	In accordance with written management system	BS EN15446		
Back-up diesel generator	Back-up diesel generator	No parameter set	No limit set					
CO <sub>2</sub> air evaporator	CO <sub>2</sub> liquefaction plant	Vent gas flow rate	No limit set	Average over sample period	Annual	By measurement or calculation. Method to be agreed in writing with the Environment Agency.		
Pressure relief valves	Digesters/Digestate storage tanks	Biogas release and operational events	No limit set	Recorded duration and frequency	Daily inspection			
Vents from tanks	Oil/Fuel Storage tanks	No parameter set	No limit set					

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

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

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

Note 4– These emission limits are based on normal operating conditions and load - temperature 0°C (273K); pressure 101.3 kPa and oxygen 3%.

Note 5 – 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.

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 site operating techniques	As described	Process
(digestion process)	Alkalinity		in site operating	monitoring to be recorded using a
	Temperature		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 every 6 months or in accordance with the manufacturer's recommendation s
	CO <sub>2</sub>	Continuous	None specified	
	O <sub>2</sub>	Continuous	None specified	
	Hydrogen sulphide	Daily	None specified	
	Pressure	Continuous	None specified	
Digestate batch	Volatile fatty acids concentration	One sample at the end of each batch	As described in site	
	Ammonia	(hydraulic retention time) cycle.	operating techniques	
Digesters and storage tanks	Integrity checks	Weekly	Visual assessment	In accordance with design specification and tank integrity checks.
Digesters	Agitation /mixing	Continuous	Systems controls	Records maintained in daily operational records.
	Tank capacity and sediment assessment	Once every 5 years from date of commission	Non- destructive pressure testing integrity assessment every 5 years	In accordance with design specification and tank integrity checks.

			or as specified	1
			by manufacturers technical specification.	
Waste reception building or area; Digesters and storage tanks	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.
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	BS EN 15446 In accordance with the LDAR programme	Monitoring points as specified in a DSEAR risk assessment and LDAR programme.
				Limit as agreed with the Environment Agency as a percentage of the overall gas production.
CHP engine stacks	VOCs including methane	Annually	BS EN 12619	Total annual VOCs emissions from the CHP engine(s) to be calculated and submitted to the Environment Agency.
	Exhaust gas temperature		Traceable to National Standards	
	Exhaust gas pressure		Traceable to National Standards	
	Exhaust gas water vapour content		BS EN 14790- 1	Unless gas is dried before analysis of emissions.
	Exhaust gas oxygen		BS EN 14789	
	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 recommendation s or as agreed in

				writing by the Environment Agency.
Emergency flare	Operating hours	Continuous	Recorded duration and frequency. Recording using a	Date, time and duration of use of auxiliary flare shall be recorded.
	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.
CO2 Recovery Plant	CO2 levels and pressure	Continuous	Recording using a SCADA system	Continuous gas pressure shall be monitored.
	Quantity of gas sent to evaporator			Quantity can be estimated
Pressure relief valves and vacuum systems	Gas pressure	Continuous	Recording using a SCADA system	Continuous gas pressure shall be monitored.
	Re-seating	Weekly inspection	Visual	Operator must ensure that valves are re- seated after release in accordance with the manufacturer's design.
	Inspection, maintenance, calibration, repair and validation	Following foaming or overtopping or at 3 yearly intervals whichever is sooner	Written scheme of examination in accordance with condition 1.1.1	After a foaming event or sticking, build-up of debris, obstructions or damage, operator must ensure that pressure relief valve function remains within designed gas pressure in accordance with the manufacturer's design by suitably trained and qualified personnel.

	Inspection, calibration and validation report	In accordance with design and construction specifications or after over topping or foaming event	Written scheme of examination in accordance with condition 1.1.1	Operator must ensure that valves are re- seated after release, after a foaming event or sticking, build-up of debris, obstructions or damage. Operator must ensure that PRV function remains within designed operation gas pressure in accordance with the manufacturer's design by suitably trained/qualified personnel. Inspection, calibration and validation report. In accordance with industry Approved Code of Practice
Storage lagoons and storage tanks	Volume	Daily	Visual or flow metre measurement	750 mm freeboard must be maintained for storage lagoons. Records of volume must be maintained.
Biofilter 1	Surface condition (signs of vegetation and channelling)	Daily	Visual assessment	Odour abatement plant shall be regularly checked
	Gas temperature – inlet and outlet	Continuous	Temperature probe / Traceable to national standards	and maintained to ensure appropriate temperature and moisture content.
	Biofilter media moisture	Daily	Moisture meter, Grab test, oven drying or recognised industry method	Odour abatement plant shall be managed in accordance with permit condition 3.3, the odour management
	Thatching /compaction	Weekly	Back pressure	plan and manufacturer's

Gas flow rate – inlet and outlet	Continuous	Gas flow meter / EN 16911-1 and MID for EN 16911-1	recommendation s. Equipment shall be calibrated on a 4 monthly
pH (biofilter drainage effluent)	Weekly	pH metre or litmus paper	basis, or as agreed in writing
Efficiency assessment	Annual	Media health, air-flow distribution and emission removal efficiency (BS EN 13725 for odour removal)	by the Environment Agency.
Hydrogen sulphide – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	As agreed in the odour management plan and approved by the Environment Agency	Action levels to be agreed on completion of IC9 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.	As agreed in the odour management plan and approved by the Environment Agency	Action levels to be agreed on completion of IC9 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 IC9 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.
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# Schedule 4 – Reporting

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

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Emissions to air from CHP engines Parameters as required by condition 3.5.1.	A1 to A4	Every 12 months	1 January, 1 April, 1 July, 1 October
Emissions to air from odour abatement plant Parameters as required by condition 3.5.1.	A6	Every 6 months	1 January, 1 July
Process monitoring – digester tank integrity Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.2	Every 5 years from the date of commissioning or as per the manufacturer's recommendation, whichever is sooner	1 January
Process monitoring – under and over pressure relief systems Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.2	Every 12 months Yearly summary report of over- pressure and under-pressure events detailing mass balance release	1 January
Process monitoring – leak detection and repair (inspection, calibration and maintenance) Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.2	Every 3 years	1 January
Process monitoring – use of emergency flare Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.2	Every 12 months	1 January
Non-compostable contamination removal efficiency Parameters as required by conditions 2.3.4, 2.3.7 and 4.2.7		Every 12 months Yearly report of detailing contamination removal efficiency and progress with plastic reduction contamination	

Total annual VOCs emissions from	As specified in schedule 3	Every 12 months	1 January
gas engines (calculated)	table S3.2		

Table S4.2 Annual production/treatment			
Parameter	Units		
Electricity generated	MWh		
Biomethane generated	tonnes or m <sup>3</sup>		
Whole digestate	tonnes		
Recovered outputs	tonnes		
CO <sub>2</sub> recovered	tonnes or m <sup>3</sup>		

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>	
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	%	

Table S4.4 Reporting forms			
Media/parameter	Reporting format	Date of form	
Air	Form air 1 or other form as agreed in writing by the Environment Agency	18/10/2023	
Process monitoring	Form process 1 or other form as agreed in writing by the Environment Agency	18/10/2023	
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	18/10/2023	
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	18/10/2023	
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	18/10/2023	
Waste returns	E-waste Return Form or other form as agreed in writing by the Environment Agency		

# Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

## Part A

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

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

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

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

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

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

## Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	
The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

\* authorised to sign on behalf of the operator

# Schedule 6 – Interpretation

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

"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. Further guidance '<u>RGN2: Understanding the meaning of regulated facility Definition of regulated facility</u>' is available.

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

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

"competent persons and resources" means that a technically competent person accredited to a relevant scheme must attend site and record their attendance, and that all roles and responsibilities are clearly stated in the management systems along with records of operatives' training. See the guidance on the <u>level of competence and duration of attendance</u>

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

'compostable plastics' means waste containing packaging or non-packaging items (or both) with a valid certificate of conformity to EN 13432 or an equivalent standard for compostable and digestible items, the certificate issued by an independent certification body capable of fully biodegrading by a biological process to create compost or digest.

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

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

'direct discharge' means discharge to a receiving water body

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

"digestate" means material resulting from an anaerobic digestion process.

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

"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.

"maturation" means optional period of treatment or storage of separated fibre digestate under predominantly aerobic conditions.

"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.

"Representative internal" – means representative monitoring at a point internally of the windrows that will give a representative assessment of temperature. Note: Larger windrows will require more bespoke temperature equipment to adequate assess temperature profiles accurately.

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

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

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

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

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

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

"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.

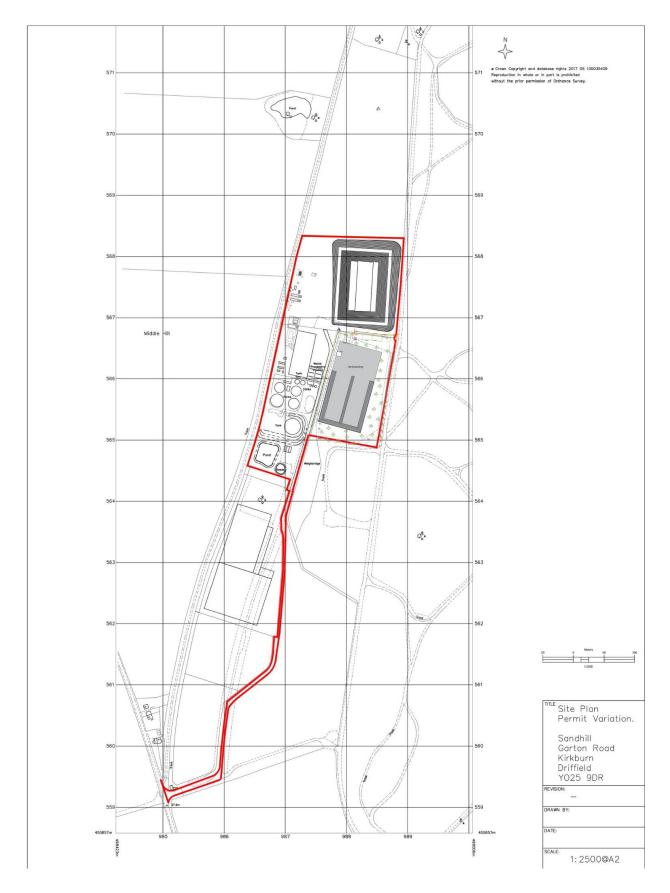
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

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

- a) 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
- b) 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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Permit number EPR/TP3835KE

# Annex 1 of MCP

1. Rated thermal input (MW) of the medium combustion plant.	CHP 1 – 2.6 MWth
	CHP 2 – 2.6 MWth
	CHP 3 – 2.8 MWth
	CHP 4 – 2.8 MWth
	Diesel Generator – 1MWth
2. Type of the medium combustion plant (diesel	Combined heat and power engine
engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	Diesel engine
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Biogas
	Diesel
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact	CHP 1 – 13/01/2011
	CHP 2 – 18/05/2011
that the operation started before 20 December	CHP 3 – 26/11/2012
2018.	CHP 4 – 18/12/2015
5. Sector of activity of the medium combustion plant or the facility in which it is applied (NACE	35.1.1
code.	
6. Expected number of annual operating hours of	CHP engines – 8760
the medium combustion plant and average load in use.	Generator - 12
7. Where the option of exemption under Article 6(3)	N/A
or Article 6(8) is used, a declaration signed by the operator that the medium combustion plant will not	
be operated more than the number of hours referred to in those paragraphs.	
8. Name and registered office of the operator and,	GWE Biogas Limited
8. Name and registered office of the operator and, in the case of stationary medium combustion plants, the address where the plant is located.	Sandhill
	Garton Road
	Kirkburn
	YO25 9DR

END OF PERMIT