

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Lower Reule Bioenergy Limited

Brookfields Farm Anaerobic Digestion Plant
Cowley
Gnosall
Stafford
ST20 0BG

Variation application number

EPR/FP3093VJ/V005

Permit number

EPR/FP3093VJ

Brookfields Farm Anaerobic Digestion Plant

Permit number EPR/FP3093VJ

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.

Brookfields Farm is an existing anaerobic digestion (AD) installation permitted to treat up to 49,275 tonnes per annum of food waste per year. Historically, processed food waste was accepted from an off-site facility at Four Ashes near Wolverhampton, in addition to other liquid wastes including Category 2 and 3 Animal By-Product wastes from other sources. The Four Ashes site has now closed down and in the interim, prepared food waste has been accepted from external sources and treated in addition to liquid food waste.

Changes introduced by this variation made by the operator

This variation authorises the following:

- a) increase in the size of the permitted area to accommodate a de-packaging building for feedstock preparation. The building will include two de-packaging lines with fast-acting roller shutter doors and a biofilter for odour abatement
- b) addition of a waste operation to dry packaging waste. This will be carried out within a separate section of the de-packaging building containing a dryer and its odour abatement (acid scrubber)
- c) The removal of the European Waste Catalogue 07 01 08* from the list of permitted wastes.

Changes introduced by this variation notice/statutory review

The Industrial Emissions Directive (IED) came into force on 7 January 2014 with the requirement to implement all relevant Best Available Techniques (BAT) Conclusions as described in the Commission Implementing Decision. Article 21(3) of the IED requires the Environment Agency to review conditions in permits that it has issued and to ensure that the permit delivers compliance with relevant standards, within four years of the publication of updated decisions on Best Available Techniques (BAT) Conclusions. The BAT Conclusions for Waste Treatment (the BREF) was published on 17 August 2018 following a European Union wide review of BAT, implementing decision (EU) 2018/1147 of 10 August 2018.

The scope of the permit review also covers the assessment of the following aspects (where relevant for this site):

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

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

Brief description of the process

The facility comprises the following infrastructure:

- A process water collection and distribution plant;

- Biogas cleaning systems comprising two biological scrubbers and three carbon filter units
- 3 pasteurisers;
- 3 combined heat and power (CHP) engines and a flare;
- 500 m³ capacity pre-pasteurisation storage tank;
- 1000 m³ capacity post pasteurisation storage tank;
- 3 digestate storage tanks;
- Secondary containment or 'technical area' around the pasteurisers and pre-and post-pasteurisation tanks;
- 4 x 40 m³ bulk liquid storage tanks;
- 50 m³ tank for storage of blood;
- A hot water and heat exchanger unit;
- external waste storage bunker for palletised packaged food wastes; and
- a control room and offices.

Solid feedstock for the AD process will be delivered to the de-packaging building for processing. The de-packaging building will have a main hall with 4 bays. The bays will allow for the segregation of feedstock, while the pretreatment of feedstock will allow for homogenisation to provide a consistent blend of soup containing a similar amount of gas each day. Liquids will be delivered into one of the four 40 m³ bulk storage liquid tanks located outside the de-packaging building in a bunded area. Blood will be delivered to and stored in a dedicated 50 m³ storage tank also located outside the de-packaging building in a bunded area.

All non-biodegradable material will be loaded onto a conveyor. If it is a single-source product such as cans or glass, the conveyor will send the waste material directly to a skip. If the residual waste is mixed packaging (usually plastic), then the conveyor will be in its default position to send it to a 40 m³ accumulation bunker. This material builds up over an 8-hour shift but then slowly feeds to the continuous belt dryer. The dryer uses heat from the CHP engines via a heat exchanger to dry the residual waste 24 hours per day. The dryer is a Dorset Drying System 450 kWth horizontal belt dryer. The drying process is controlled by temperature sensors in the incoming and outgoing airflows. The dried residual waste will be stored inside a skip in the building and then taken off-site for incineration. Air from the dryer will be treated via an acid scrubber odour abatement system.

Prepared feedstock is held within the 500 m³ pre-pasteurisation tank which acts as a buffer storage tank before the pasteurisation step. Digester 1 and Digester 2 each have a working volume of 2,179 m³ and Digester 3 has a working volume of 2,269 m³, providing an overall digester treatment volume of 6,627 m³. Each digester has a sampling port and an inspection window with wipers. The digesters have pressure and vacuum relief valves (PRV) which will release biogas or take in air in the event of overpressure or under pressure biogas situations respectively. The PRVs will only be used as a contingency measure to maintain the structural integrity of the tanks and dome structures. During normal operation, the PRVs will not operate. They are checked daily following the installation's daily checks.

Liquid digestate from the process is produced to BSI PAS110 Specification and certified under the Biofertiliser Certification Scheme. The digestate is applied to land following the Anaerobic Digestion Quality Protocol (ADQP). Solid digestate is stored in a dedicated fibre store from where it is sent offsite as waste. This environmental permit does not authorise the spreading of digestate on any land.

Biogas is stored within the gas storage domes on top of the digesters and the digestate storage tanks. These tanks have de-sulphurisation nets and low-level oxygen injection to encourage microbial growth to reduce hydrogen sulphide (H₂S) levels and precipitate sulphur. The SCADA system will manage the biogas treatment and gas distribution systems.

The CHPs burn the treated biogas to provide electricity to run the AD plant. Excess electricity is exported to the local electricity distribution network. The heat from the CHP engines is used to maintain the temperatures in the digesters, to heat the pasteurisers to the required temperature, to provide heat to the biological scrubbers and to dry the residual packaging waste. The engines will be maintained internally under a Planned Preventative Maintenance Programme. Larger engine services will be carried out by external contractors.

All areas for the storage, handling and treatment of waste benefit from an impermeable surface and sealed drainage system. Treatment of waste will be carried out within a fully enclosed building reducing the risk of amenity impacts from the operation.

The schedules specify the changes made to the permit.

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

Status log of the permit		
Description	Date	Comments
Application EPR/FP3093VJ/A001	Duly made 06/10/2009	
Additional information received	13/01/2010	
Permit determined EAWML 101245	26/02/2010	
Administrative variation EPR/FP3093VJ/V002	Received 12/03/2010	
Administrative variation issued EPR/FP3093VJ/V002	05/05/2010	
Application EPR/FP3093VJ/V003 (variation and consolidation)	Duly made 20/10/2014	Application to vary and update the permit to modern conditions in accordance with IED.
Variation determined EPR/FP3093VJ	04/02/2016	Varied and consolidated permit issued in modern condition format.
Application EPR/FP3093VJ/V004	Returned 12/05/2018	Application returned without duly making due to insufficient information.
Application EPR/FP3093VJ/V005 (variation and consolidation)	Duly made 07/10/2020	Variation to add a drying waste operation and some directly associated activities to the existing installation activities.
Additional information received	19/11/2020	LRBE_OD_04 Odour Management Plan reference V1 Issue 2.
Additional information received	03/12/2020	Response to questions about waste codes that are no longer considered suitable for biological treatment through the AD process.
Schedule 5 Notice response received.	09/12/2020	LRBE_OD_03 Accident Management Plan Version 2.0 with associated documents submitted and listed below:
	22/12/2020	LRBE-SOP-14 Spill Procedure V9.0 LRBE- SOP-37 Isolation and Lock-Up Procedure V1.0 LRBE-SOP-38 Biogas Leak Procedure V1.0 LRBE-SOP-40 Fire and Explosion Response Procedure V1.0 LRBE-SOP-41 Mains Power Outage Response Procedure LRBE-SOP-42 SCADA Alarm Procedure LRBE-SOP-43 Foam Response Procedure V1.0
	11/01/2021	LRBE-OD-25_Fire Prevention Plan (FPP) V1.1 and response to questions 1 to 4 of Information Notice dated 09/12/2020

Status log of the permit		
Description	Date	Comments
Additional information received	18/02/2021	Responses to questions regarding the thermal input of the Combined Heat and Power (CHP) units, the availability of auxiliary boilers and biogas upgrading plant, and the site's processing capacity.
Additional information received	03/03/2021	LRBE-SOP-37 Drainage and secondary containment procedure.
Additional information received	16/03/2021	Responses to questions regarding digestate storage at the facility.
Additional information received	29/03/2021	Description of wastes to be stored in external bunker.
Variation determined and consolidation issued EPR/FP3093VJ (Billing Ref: QP3930QH)	30/03/2021	Varied and consolidated permit issued in a modern format.

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/FP3093VJ

Issued to

Lower Reule Bioenergy Limited ("the operator")

whose registered office is

**4th Floor
36 Spital Square
London
E1 6DY**

company registration number **06759707**

to operate regulated facilities at

**Brookfields Farm Anaerobic Digestion Plant
Cowley
Gnosall
Stafford
ST20 0BG**

to the extent set out in the schedules.

The notice shall take effect from 30/03/2021

Name	Date
Claire Roberts	30/03/2021

Authorised on behalf of the Environment Agency

Schedule 1

All conditions have been varied by the consolidated permit EPR/FP3093VJ

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/FP3093VJ

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/FP3093VJ/V005 authorising,

Lower Reule Bioenergy Limited ("the operator"),

whose registered office is

4th Floor

36 Spital Square

London

E1 6DY

company registration number **06759707**

to operate an installation/waste operations at

Brookfields Farm Anaerobic Digestion Plant

Cowley

Gnosall

Stafford

ST20 0BG

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

Name	Date
Claire Roberts	30/03/2021

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Energy efficiency

- 1.2.1 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR11), 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 AR11), 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 AR11), 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 AR11), 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 green on the site location 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 tables S2.2, S2.3 and S2.4
 - (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 AR11), waste pre-acceptance and acceptance procedures shall be undertaken in accordance with best available techniques.
- 2.3.8 For the following activities referenced in schedule 1, table S1.1 (AR4):
- (a) each MCP must be operated in accordance with the manufacturer's instructions and records must be made and retained to demonstrate this.
 - (b) the operator must keep periods of start-up and shut-down of each MCP as short as possible.
 - (c) there must be no persistent emission of 'dark smoke' as defined in section 3(1) of the Clean Air Act 1993.

2.4 Improvement programme

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

2.5 Pre-operational conditions

- 2.5.1 The operations specified in schedule 1 table S1.4 shall not commence until the measures specified in that table have been completed.

3 Emissions and monitoring

3.1 Emissions to water, air or land

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

3.2 Emissions of substances not controlled by emission limits

- 3.2.1 Emissions of substances not controlled by emission limits (excluding odour, but including ammonia) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.
- 3.2.2 The operator shall:
- (a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
 - (b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

- 3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.
- 3.2.4 The operator shall implement a leak detection and repair (LDAR) programme to detect and mitigate the release of volatile organic compounds, including methane from diffuse sources.

3.3 Odour

- 3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.4 Noise and vibration

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

3.5 Monitoring

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

3.6 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.

4 Information

4.1 Records

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

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 For the following activities referenced in schedule 1, table S1.1 (AR1 to AR11), a report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production/treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within 1 month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.
- 4.2.6 The operator shall keep records of non-waste materials leaving the site, including the type of material, the batch number, the date of export off-site and the tonnage exported on that date. These records shall be maintained for at least 2 years.

4.3 Notifications

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

- (c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

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

4.4 Interpretation

- 4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

- 4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made “immediately”, in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
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 3 digester 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		
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. Temporary storage of palletised waste (Table S2.3) in an external bunker and on impermeable surface with a sealed drainage system. The maximum residence time for storage in this bunker shall not exceed 2 days.

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
AR3	Physical treatment for the purpose of recycling	R3: Recycling/reclamation of organic substances which are not used as solvents	From the receipt of waste to despatch for anaerobic digestion or despatch off site for recovery. Pre-treatment of waste in enclosed building and on impermeable surface with a sealed drainage system including shredding, sorting, screening, mixing and maceration. Post-treatment of digestate on an impermeable surface with a sealed drainage system, including separation, screening to remove contraries, centrifuge or pressing and addition of thickening agents (polymers) or drying. Heat treatment (pasteurisation) of waste in 3 tanks for the purpose of recovery. Gas cleaning by biological or physical (carbon filtration or biological scrubbing) prior to use within the facility if required. 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 3 combined heat and power (CHP) engines with an aggregated thermal input of 4.7 MWth.

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
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 1 auxiliary flare required only during periods of breakdown or maintenance of the CHP engines.
AR6	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, propane, ferric chloride, activated carbon, diesel.	From the receipt of raw materials to despatch for use within the facility.
AR7	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 the roof space of the digesters. From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility.
AR8	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 2 storage tanks. Storage of processed uncertified solid digestate in a fibre store and on an impermeable surface with a sealed drainage system.
AR9	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water	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.

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
			Collection and storage of uncontaminated roof and site surface water in a rainwater harvesting tank and a swale.
AR10	Process water collection and storage	Collection and storage of process water in a subsurface collection pit.	From the receipt of process water produced at the facility to despatch for treatment at the facility or despatch off-site for recovery or disposal. Collection and storage of process water from the de-packaging building in a subsurface collection pit. Collection and storage of process water from all other areas including external bunker and fibre store in package pumps which in turn pump to the subsurface pit in the de-packaging building for use as wash water in the augers in the depackaging lines.
AR11	Air treatment	Collection and treatment of air from the de-packaging building and drying plant using abatement system – [1 x biofilter and 1 x acid scrubber], before releasing to the atmosphere.	From the collection of air from site processes to treatment and release of treated air to the atmosphere.
Activity reference	Description of activities for waste operations		Limits of activities
AR12	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) R3: Recycling/reclamation of organic substances which are not used as solvents		Treatment operations shall be limited to: Heat treatment of waste for the purpose of recovery. Physical treatment including drying for the purpose of recovery. Collection and treatment of air from the drying room or plant using abatement system – [1x acid scrubber] Waste types as specified in Table S2.4.

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EPR/FP3093VJ/V005	Responses to questions 3d and 4 of Application Form C2.	23/03/2020
Application EPR/FP3093VJ/V005	Boundary and Emission Point Plan	23/03/2020
Application EPR/FP3093VJ/V005	LRBE_OD_05 Responses contained in the BAT Available Techniques Assessment Report, Ref: ETL378/SPC0079/Brookfields AD/BAT/V1/0, except responses for BAT points 1, 3 and 19	
Application EPR/FP3093VJ/V005	Responses to questions 2, 3 and 4 of Application Form B2	07/10/2020
Application EPR/FP3093VJ/V005	LRBE_OD_04 Odour Management Plan reference V1 Issue 2.	19/11/2020
Response to Schedule 5 Notice dated 09/12/2020	LRBE_OD_03 Accident Management Plan Version 2.0 with associated documents submitted listed below:	09/12/2020
	LRBE-SOP-14 Spill Procedure V9.0 LRBE- SOP-37 Isolation and Lock-Up Procedure V1.0 LRBE-SOP-38 Biogas Leak Procedure V1.0 LRBE-SOP-40 Fire and Explosion Response Procedure V1.0 LRBE-SOP-41 Mains Power Outage Response Procedure LRBE-SOP-42 SCADA Alarm Procedure LRBE-SOP-43 Foam Response Procedure V1.0	22/12/2020
Response to Schedule 5 Notice dated 09/12/2020	LRBE-OD-25_Fire Prevention Plan (FPP) V1.1 and the response to Question 1 of the Information Notice.	11/01/2021
Additional information received	Responses to questions regarding the thermal input of the Combined Heat and Power (CHP) units and the site's processing capacity.	18/02/2021
Additional information received	LRBE-SOP-37 Drainage and secondary containment procedure.	03/03/2021
Response to Request for further information dated 11/03/2021.	Response to question 1 of request for further information regarding digestate storage at the facility.	16/03/2021
Additional information received	Description of wastes to be stored in external bunker.	29/03/2021

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
Improvement condition for progress report to achieve Narrative BAT		
IC1	The operator shall submit, for approval by Environment Agency, a report setting out progress to achieving the 'Narrative' BAT where BAT is currently not achieved, but will be achieved before 17 August 2022. The report shall include, but not be limited to, the following: 1) Methodology for achieving BAT 2) Associated targets /timelines for reaching compliance by 17 August 2022	Progress reports at six monthly intervals from date of permit issue: 30/09/2021

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	3) Any alterations to the initial plan (in progress reports). The report shall address the BAT Conclusions for Waste Treatment with respect to BAT 1, 3, 4 and 19.	30/03/2022 30/07/2022
Improvement condition for primary containment		
IC2	The operator shall submit a written 'primary containment plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of an inspection and program of works undertaken by a qualified engineer, and shall assess the design specification and condition of primary containment systems where polluting liquids and solids are being stored, treated, and/or handled. The plan shall include: • an assessment of the physical condition of all primary containment systems (storage and treatment vessels) using a Written Scheme of Examination and their suitability for providing primary containment when subjected to the dynamic and static loads caused by catastrophic tank failure; • a program of works with timescales for the implementation of individual improvement measures necessary to demonstrate that the primary containment is fit for purpose or alternative appropriate measures to ensure all polluting materials will be contained on site; and • a preventative maintenance and inspection regime The plan shall be implemented in accordance with the Environment Agency's written approval.	30/09/2021
Improvement condition for secondary containment design		
IC3	The operator shall submit a written 'secondary and tertiary containment plan' and shall obtain the Environment Agency's written approval to it. The plan shall contain the results of an inspection and program of works undertaken by a competent structural engineer, in accordance with the risk assessment methodology detailed within CIRIA C736 (2014) guidance, of the condition and extent of secondary and tertiary containment systems where all polluting liquids and solids are being stored, treated, and/or handled. The inspection shall consider, but not be limited to, the storage vessels, bunds, loading and unloading areas, transfer pipework/pumps, temporary storage areas, and liners underlying the site. The plan shall include: • an assessment of the physical condition of all secondary and/or tertiary containment systems, using a Written Scheme of Examination and their suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure; • a program of works with timescales for the implementation of individual improvement measures necessary for the secondary and/or tertiary containment systems to comply with CIRIA C736 (2014) guidance, or equivalent.	30/03/2022

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	a preventative maintenance and inspection regime The plan shall be implemented in accordance with the Environment Agency's written approval.	
Improvement condition for review of effectiveness of abatement plant		
IC4	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. 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. - Abatement stack monitoring results (not limited to odour and ammonia) - Abatement process monitoring results (not limited to odour and ammonia) - Details of air quality quantitative impact assessment including modelling and a proposal for site-specific "action levels" (not limited to odour concentration, hydrogen sulphide and ammonia). - Odour monitoring results at the site boundary - Records of odour complaints and odour related incidents - Recommendations for improvement including the replacement or upgrading the abatement plant - 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.	30/03/2022
Improvement condition for assessment of methane slip		
IC5	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.	30/03/2022

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
1	Drying waste operation	Prior to the commissioning of the waste drying operation, the operator shall submit evidence to show that the design, installation and maintenance of the depackaging/waste operation building's fire detection and suppression systems will be covered by an appropriate UKAS accredited third party certification scheme or recognised third party or standard. The operator shall submit a written commissioning plan for the detection and suppression systems that includes, but is not limited to, the design layout, performance and operating procedure of the system. No waste drying operations will be carried out at the facility unless the Environment Agency has given prior written permission under this condition.
2	De-packaging operation and newly permitted area	At least 8 weeks (or any other date as agreed with the Environment Agency) prior to commissioning of the newly permitted/depackaging area and commencement of depackaging operations, 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 a review conducted, by a competent person, and shall compare the design specification of all new primary containment systems where all polluting liquids and solids are being stored, treated, and/or handled against the design standards within CIRIA C736 guidance or equivalent. The review shall include: • physical condition of all new primary containment systems (storage and treatment vessels) including the new digestate storage tanks; • the suitability for providing primary containment when subjected to the dynamic and static loads caused by the vessels' contents; • any work required to ensure compliance with the standards set out in CIRIA C736 or equivalent; and • a preventative maintenance and inspection regime The plan must contain dates for the implementation of individual improvement measures necessary for the primary containment to adhere to the standards detailed/referenced within CIRIA C736 guidance, or equivalent. No feedstock processing or depackaging/waste drying operations will be carried out at the facility unless the Environment Agency has given prior written permission under this condition.
3	De-packaging operation and newly permitted area	At least 8 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of feedstock acceptance and processing within the de-

Table S1.4 Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
		packaging building, the operator shall ensure that a review of the design, method of construction and integrity of the proposed site secondary containment for the de-packaging and newly permitted area is carried out by a competent person (qualified civil or structural engineer). The review shall be undertaken in accordance with the methodology detailed in CIRIA C736 - Containment Systems for the Prevention of Pollution - secondary, tertiary and other measures for industrial and commercial premises or other relevant industry standard and shall compare the constructed secondary containment against the standards stated above. The review shall include: • physical condition of the constructed secondary containment • the suitability for providing containment when subjected to the dynamic and static loads caused by catastrophic tank failure; • any work required to ensure compliance with the standards detailed in CIRIA C736 or other relevant industry standard; and • a maintenance and inspection regime A written report of the review shall be submitted to the Environment Agency detailing the review's findings and recommendations. Remedial action shall be taken to ensure that the secondary containment meets the CIRIA C736 standards and the operator must implement the maintenance and inspection regime. No feedstock processing or depackaging/waste drying operations will be carried out at the facility unless the Environment Agency has given prior written permission under this condition.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
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Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Total annual throughput (Tables S2.2 and S2.3) shall not exceed 49,275 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: - separately collected loads of plastic unless the whole load is certified compostable to BS EN13432 - co-mingled green and food waste containing more than 5% w/w plastic, unless the plastic is certified compostable to BS EN 13432 - food wastes containing more than 5% w/w plastic unless there is sufficient technology to remove non-compostable plastic prior to treatment from package food waste to a processing limit of 1% w/w or decreasing year on year by 2025. - wastes containing wood-preserving agents or other biocides and post-consumer wood - wastes containing persistent organic pollutants - wastes containing Japanese Knotweed or other invasive plant species listed in the Alien Invasive Species Regulations 2014 - 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.
Waste code	Description
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 01	sludges from washing and cleaning – vegetables, fruit and other crops
02 01 02	animal tissue waste
02 01 03	plant tissue waste
02 01 06	animal faeces, urine and manure (including spoiled straw) only
02 01 07	wastes from forestry
02 01 99	residues from commercial mushroom cultivation
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 01	sludges from washing and cleaning
02 02 02	animal tissue waste
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment
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

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Total annual throughput (Tables S2.2 and S2.3) shall not exceed 49,275 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: - separately collected loads of plastic unless the whole load is certified compostable to BS EN13432 - co-mingled green and food waste containing more than 5% w/w plastic, unless the plastic is certified compostable to BS EN 13432 - food wastes containing more than 5% w/w plastic unless there is sufficient technology to remove non-compostable plastic prior to treatment from package food waste to a processing limit of 1% w/w or decreasing year on year by 2025. - wastes containing wood-preserving agents or other biocides and post-consumer wood - wastes containing persistent organic pollutants - wastes containing Japanese Knotweed or other invasive plant species listed in the Alien Invasive Species Regulations 2014 - 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.
Waste code	Description
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
02 04	wastes from sugar processing
02 04 03	sludges from on-site effluent treatment
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 03	sludges from on-site effluent treatment
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
04	Wastes from the leather, fur and textile industries
04 02	wastes from the textile industry
04 02 10	organic matter from natural products, e.g. grease, wax
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

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Total annual throughput (Tables S2.2 and S2.3) shall not exceed 49,275 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: - separately collected loads of plastic unless the whole load is certified compostable to BS EN13432 - co-mingled green and food waste containing more than 5% w/w plastic, unless the plastic is certified compostable to BS EN 13432 - food wastes containing more than 5% w/w plastic unless there is sufficient technology to remove non-compostable plastic prior to treatment from package food waste to a processing limit of 1% w/w or decreasing year on year by 2025. - wastes containing wood-preserving agents or other biocides and post-consumer wood - wastes containing persistent organic pollutants - wastes containing Japanese Knotweed or other invasive plant species listed in the Alien Invasive Species Regulations 2014 - 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.
Waste code	Description
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	waste types listed within this table, Table S2.2, that have been mixed together 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 06	wastes from anaerobic treatment of waste
19 06 03	liquor from anaerobic treatment of municipal waste (from a process that treats wastes which are listed in this table only)
19 06 04	digestate from anaerobic treatment of source segregated biodegradable waste (from a process that treats wastes which are listed in this table only)
19 06 05	liquor from anaerobic treatment of animal and vegetable waste (from a process that treats wastes which are listed in this table only)
19 06 06	digestate from anaerobic treatment of animal and vegetable waste (from a process that treats wastes which are listed in this table only)
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 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 listed in this table only)
20	Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions

Table S2.2 Permitted waste types and quantities for anaerobic digestion	
Maximum quantity	Total annual throughput (Tables S2.2 and S2.3) shall not exceed 49,275 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: • separately collected loads of plastic unless the whole load is certified compostable to BS EN13432 • co-mingled green and food waste containing more than 5% w/w plastic, unless the plastic is certified compostable to BS EN 13432 • food wastes containing more than 5% w/w plastic unless there is sufficient technology to remove non-compostable plastic prior to treatment from package food waste to a processing limit of 1% w/w or decreasing year on year by 2025. • wastes containing wood-preserving agents or other biocides and post-consumer wood • wastes containing persistent organic pollutants • wastes containing Japanese Knotweed or other invasive plant species listed in the Alien Invasive Species Regulations 2014 • 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.
Waste code	Description
20 01	separately collected fractions (except 15 01)
20 01 08	biodegradable kitchen and canteen waste
20 01 25	edible oil and fat
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 03	other municipal wastes
20 03 01	mixed municipal waste – only separately collected biodegradable wastes of types listed within this table, Table S2.2
20 03 02	waste from markets – allowed only if source segregated biodegradable fractions e.g. plant material, fruit and vegetables

Table S2.3 Permitted waste types and quantities for anaerobic digestion (temporary external storage only)	
Maximum quantity	Total annual throughput (Tables S2.2 and S2.3) shall not exceed 49,275 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: - separately collected loads of plastic unless the whole load is certified compostable to BS EN13432 - co-mingled green and food waste containing more than 5% w/w plastic, unless the plastic is certified compostable to BS EN 13432 - food wastes containing more than 5% w/w plastic unless there is sufficient technology to remove non-compostable plastic prior to treatment from package food waste to a processing limit of 1% w/w or decreasing year on year by 2025. - wastes containing wood-preserving agents or other biocides and post-consumer wood - wastes containing persistent organic pollutants - wastes containing Japanese Knotweed or other invasive plant species listed in the Alien Invasive Species Regulations 2014 - 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.
Waste code	Description
02	Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 02	animal tissue waste - unopened, packaged and palletised batches only
02 02 03	materials unsuitable for consumption or processing - unopened, packaged and palletised batches only
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 04	materials unsuitable for consumption or processing – unopened, packaged and palletised batches only
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing – unopened, packaged and palletised batches only
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing – unopened, packaged and palletised batches only
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 04	materials unsuitable for consumption or processing – unopened, packaged and palletised batches only

Table S2.4 Permitted waste types and quantities for drying	
Maximum quantity	Annual throughput shall not exceed 7,300 tonnes
Waste code	Description
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 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11.

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Existing medium combustion plant which are engines fuelled on biogas (1 MW to 5 MW)						
EP1 [Emission Point EP1 as reflected in the Site Boundary and Emission Point Plan submitted with Application EPR/FP3093VJ/V005]	CHP engine 1 stack [note 1]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	650 mg/m ³ [note 2]	Average over sample period	Annual	BS EN 14792
		Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³ [note 3]			BS EN 14792
		Sulphur dioxide	350 mg/m ³ [note 2]			BS EN 14791 or CEN TS 17021 or by calculation based on fuel sulphur
		Sulphur dioxide	162 mg/m ³ [note 3]			
		Carbon monoxide	1400 mg/m ³			BS EN 15058
		Total VOCs	No limit set			BS EN 12619
EP2 [Emission Point EP2 as reflected in the Site Boundary and Emission Point Plan submitted with Application EPR/FP3093VJ/V005]	CHP engine 2 stack [note 1]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	650 mg/m ³ [note 2]	Average over sample period	Annual	BS EN 14792
		Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³ [note 3]			BS EN 14792
		Sulphur dioxide	350 mg/m ³ [note 2]			BS EN 14791 or CEN TS 17021 or by calculation based on fuel sulphur
		Sulphur dioxide	162 mg/m ³ [note 3]			
		Carbon monoxide	1400 mg/m ³			BS EN 15058

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Source	Parameter	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
		Total VOCs	No limit set			BS EN 12619
New medium combustion plant which are engines fuelled on biogas						
EP9 [Emission Point 9 as reflected in the Site Boundary and Emission Point Plan submitted with Application EPR/FP3093VJ/V00 5]	CHP engine 3 stack [note 4]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	Average over sample period	Annual	BS EN 14792
		Sulphur dioxide	107 mg/m ³			BS EN 14791 or CEN TS 17021 or by calculation based on fuel sulphur
		Carbon monoxide	1400 mg/m ³			BS EN 15058
		Total VOCs	No limit set	---	---	BS EN 12619
EP3 [Emission Point EP3 as reflected in the Site Boundary and Emission Point Plan submitted with Application EPR/FP3093VJ/V00 5]	Emergency flare stack	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	150 mg/m ³	Average over sample period	[note 5]	BS EN 14792
		Carbon monoxide	50 mg/m ³			BS EN 15058
		Total VOCs	10 mg/m ³			BS EN 12619:2013
EP7 [Emission Point EP7 on as reflected in the Site Boundary and Emission Point Plan submitted with Application EPR/FP3093VJ/V00 5]	Channelled emissions such as odour abatement stack or vents (biofilter)	Hydrogen sulphide	No limit set	Average over sample period	Once every 6 months	CEN TS 13649 for sampling NIOSH 6013 for analysis
		Odour concentration	No limit set	--		BS EN 13725
		Ammonia	1 mg/m ³	Average over sample period		EN ISO 21877
EP8 [Emission Point EP8 on as reflected in the Site Boundary	Channelled emissions such as	Hydrogen sulphide	No limit set	Average over		CEN TS 13649 for sampling

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
and Emission Point Plan submitted with Application EPR/FP3093VJ/V005]	odour abatement stack or vents (scrubber)			sample period		NIOSH 6013 for analysis
		Odour concentration	No limit set	--		BS EN 13725
		Ammonia	1 mg/m ³	Average over sample period		EN ISO 21877
Pressure relief valves [Emission Points EP4, EP5 and EP6 on the Site Boundary and Emission Point Plan submitted with Application EPR/FP3093VJ/V005]	Digesters /digestate storage tank(s)	Biogas release and operational events	No limit set	Recorded duration and frequency	Daily inspection	--
Vents from tank(s)	Oil/Fuel Storage tank(s)	No parameter set	No limit set	--	--	--
Note 1 – These emission limits are based on normal operating conditions and load - temperature 0°C (273 K); pressure 101.3 kPa and oxygen 5% (for gas engines burning biogas) and oxygen 3% (for emergency flares and medium combustion plants other than engines and gas turbines burning biogas such as boilers). Note 2 – This emission limit applies until 31 December 2029, unless the gas engine is replaced. Note 3 – This emission limit applies from 1 January 2030, unless otherwise advised by the Environment Agency. Note 4 – 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) and oxygen 3% for emergency flares and medium combustion plants other than engines and gas turbines (such as boilers). 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						

Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source [Note 1]	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
Emission to ground via swale (EP10), and via surface water outfall (EP11) as reflected in the Site Boundary and Emission Point Plan submitted with	Uncontaminated site surface water from roofs and non-operational areas	Oil and grease	No visible oil or grease	--	Weekly	Visual assessment

Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	Source [Note 1]	Parameter	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
Application EPR/FP3093VJ/V005]						
Note 1 – Clean surface water from roofs, or from areas of the site that are not being used in connection with storing and treating waste can be discharged directly to surface waters, or to groundwater by seepage through the soil via a soakaway.						

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Digester feed (digestion process)	pH	As described in site operating techniques – Environmental Management System	As described in site operating techniques – Environmental Management System	Process monitoring to be recorded using a SCADA system where relevant.
	Alkalinity			
	Temperature			
	Hydraulic loading rate			
	Organic loading rate			
	Volatile fatty acids concentration			
	Ammonia			
	Liquid /foam level			
Digestate batch	Volatile fatty acids concentration	One sample at the end of each batch (hydraulic retention time) cycle.	As described in site operating techniques – Environmental Management System	--
	Ammonia			
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 recommendations.
	CO ₂	Continuous	None specified	

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	O ₂	Continuous	None specified	
	Hydrogen sulphide	Daily	None specified	
	Pressure	Continuous	None specified	
Digesters and storage tanks	Integrity checks	Weekly	Visual assessment	--
Digesters	Agitation /mixing	Continuous	Systems controls. Yearly lithium or thermal imaging	Records maintained in daily operational records.
	Tank capacity and sediment assessment	Once a year		In accordance with design specification and tank integrity checks.
Waste reception building or area; Digesters and storage tanks	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.
Diffuse emissions from all sources identified in the Leak Detection and Repair (LDAR) programme	VOCs including methane	Every 6 months	In accordance with written management system	Leak detection and repair (LDAR) programme in accordance with permit condition 3.2.4.
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 oxygen		BS EN 14789	
	Exhaust gas flow		BS EN 16911-1	

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	Exhaust gas water vapour content		BS EN 14790-1	Unless gas is dried before analysis of emissions.
Meteorological conditions	Wind speed, air temperature, wind direction	Continuous	Method as specified in management system	Conditions to be recorded in operational diary and records. Equipment shall be calibrated on a 4 monthly basis, in accordance with manufacturer's recommendations or as agreed in writing by the Environment Agency.
Emergency flare	Operating hours	Continuous	Recorded duration and frequency. Recording using a SCADA system or similar system	Date, time and duration of use of auxiliary flare shall be recorded.
	Quantity of gas sent to emergency flare			Quantity can be estimated from gas flow composition, heat content, ratio of assistance, velocity, purge gas flow rate, pollutant emissions.
Pressure relief valves and vacuum systems	Re-seating	Weekly inspection	Visual and gas pressure.	Continuous gas pressure shall be monitored. Operator must ensure that valves are re-seated after release in accordance with the manufacturer's design.

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
	Maintenance	Written scheme of examination in accordance with condition 1.1.1	Written scheme of examination in accordance with condition 1.1.1	Continuous gas pressure shall be monitored. Operator must ensure that valves are re-seated after release in accordance with the manufacturer's design.
	Inspection calibration and validation report	In accordance with design and construction specifications or after over topping or foaming event		Operator must ensure that valves are re-seated after release, after a foaming event or sticking, build-up of debris, obstructions or damage. 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 and guidance in relation to The Pressure Systems Safety Regulations 2000 (PSSR).
Storage tanks	Volume	Daily	Visual or flow metre measurement	300 mm freeboard must be maintained for storage tanks.

Table S3.3 Process monitoring requirements – odour abatement				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Odour abatement plant				
Open biofilters				
Biofilter 1	Surface condition (signs of vegetation and channelling)	Daily	Visual assessment	Odour abatement plant shall be regularly checked and maintained to ensure appropriate temperature and moisture content.
	Gas temperature – inlet	Daily	Temperature probe / Traceable to national standards	
	Biofilter media moisture	Daily	Moisture metre or recognised industry method	Odour abatement plant shall be managed in accordance with permit condition 3.3, the odour management plan and manufacturer's recommendations.
	Thatching /compaction	Weekly	Back pressure	
	Gas flow rate – inlet	Continuous	Gas flow metre / EN 16911-1 and MID for EN 16911-1	Equipment shall be calibrated on a 4 monthly basis, or as agreed in writing by the Environment Agency.
	pH (biofilter drainage effluent)	Daily	pH metre	
	Efficiency assessment	Annual	Media health, air-flow distribution and emission removal efficiency (BS EN 13725 for odour removal)	
	Hydrogen sulphide – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	CEN TS 13649 for sampling NIOSH 6013 for analysis	Action levels to be agreed on completion of IC4 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	EN ISO 21877	Action levels to be agreed on completion of IC4 as approved in

Table S3.3 Process monitoring requirements – odour abatement				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
		Environment Agency.		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 IC4 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.
Scrubbers (chemical)				
Scrubber for dryer abatement.	Gas temperature – inlet and outlet	Continuous	Temperature probe / Traceable to national standards	Odour abatement plant shall be regularly checked and maintained to ensure appropriate temperature and moisture content.
	Gas flow rate – inlet and outlet	Continuous	Gas flow metre / EN 16911-1 and MID for EN 16911-1	
	Moisture content or humidity – inlet and outlet (for dry scrubbers only)	Daily	Moisture metre	Odour abatement plant shall be managed in accordance with permit condition 3.3, the odour management plan and manufacturer's recommendations.
	Moisture content or humidity – outlet (for wet scrubbers if used before other abatement systems)	Daily	Moisture metre	
	Back pressure	Weekly	Pressure differential using sensors	Equipment shall be calibrated on a 4 monthly basis, or as agreed in writing by the Environment Agency.
	Efficiency assessment	Annual	Emission removal	

Table S3.3 Process monitoring requirements – odour abatement				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
			efficiency (BS EN 13725 for odour removal)	
	pH scrubber solution (pre-abatement)	Continuous	pH metre	
	pH scrubber solution (post-abatement)	Continuous	pH metre	
	Hydrogen sulphide – inlet and outlet gas stream	Every 6 months or as agreed in writing by the Environment Agency.	CEN TS 13649 for sampling NIOSH 6013 for analysis	Action levels to be agreed on completion of IC4 as approved in writing by the Environment Agency. Action levels to be achieved in accordance with permit condition 3.2 and the odour management plan.
	Ammonia – inlet	Every 6 months or as agreed in writing by the Environment Agency.	EN ISO 21877	Action levels to be agreed on completion of IC4 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.

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.	EP1, EP2 and EP9.	Every 12 months	1 January
Emissions to air from odour abatement plant Parameters as required by condition 3.5.1.	EP7 and EP8.	Every 6 months	1 January, 1 July
Process monitoring Parameters as required by condition 3.5.1	As specified in schedule 3 table S3.3	Every 12 months	1 January
Total annual VOCs emissions from gas engines (calculated)	As specified in schedule 3 table S3.3	Every 12 months	1 January

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

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes or m ³
Energy usage	Annually	MWh
Raw material usage	Annually	tonnes or m ³
Emergency flare operation	Annually	hours
Electricity exported	Annually	MWh
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	30/03/2021

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Process monitoring	Form process 1 or other form as agreed in writing by the Environment Agency	30/03/2021
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	30/03/2021
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	30/03/2021
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	30/03/2021
Waste returns	E-waste Return Form or other form as agreed in writing by the Environment Agency	--

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

(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	
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 methane-rich biogas and whole digestate.

“Animal By-Products Regulations” means The Animal By-Products (Enforcement) (England) Regulations 2013 (SI 2013 No.2952).

“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.

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

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

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

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

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

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

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

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

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

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

“emissions to land” includes emissions to groundwater.

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

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

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

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

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

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

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

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

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

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

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

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

“operator” means in relation to a regulated facility:

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

“pests” means Birds, Vermin and Insects.

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

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

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

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

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

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

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

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

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

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

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

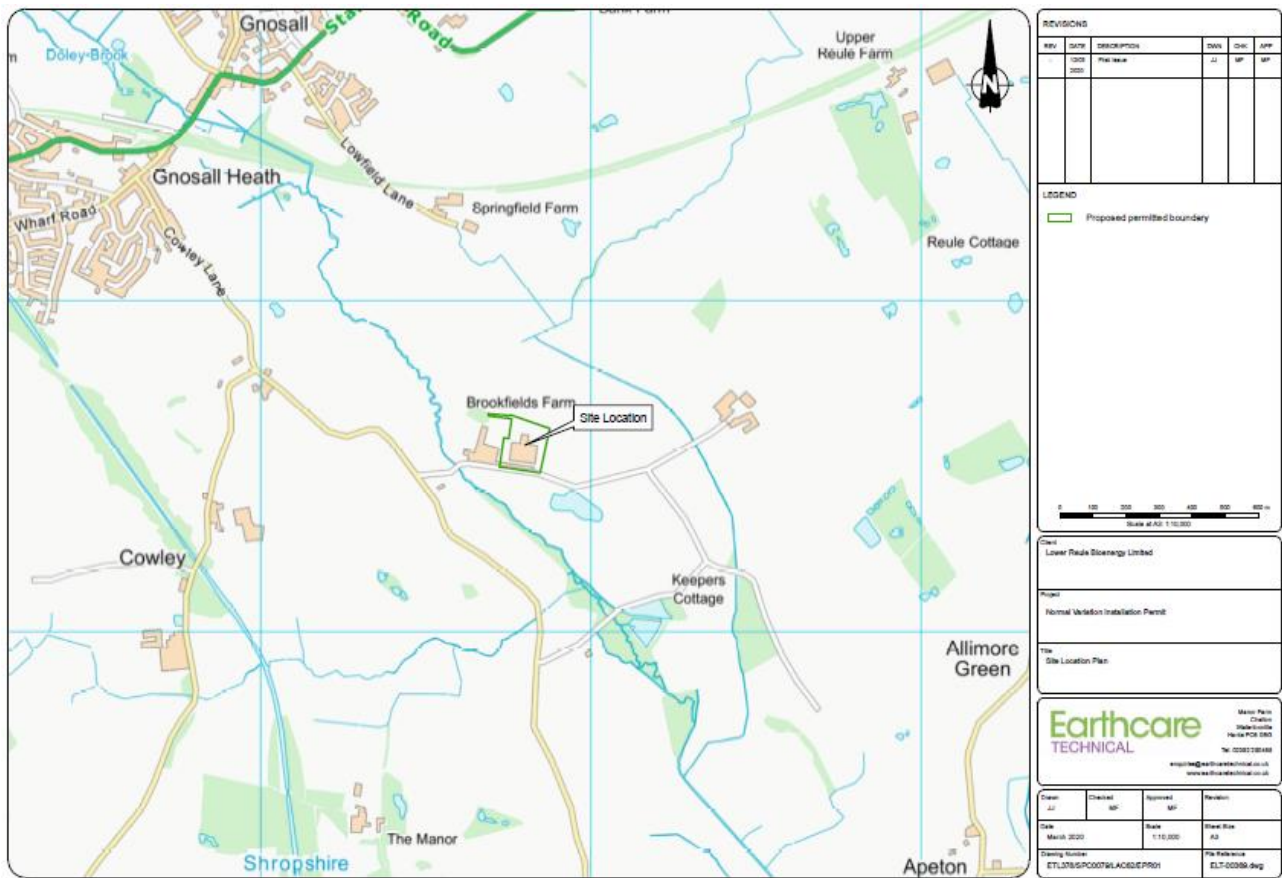
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels other than gas engines or gas turbines, 6% dry for solid fuels; and/or
- in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels ; and/or

“year” means calendar year ending 31 December.

Schedule 7 – Site plan

Site location plan



REVISIONS

Rev.	Date	Description	Drawn	Chek	Appr.
1	10/03/2020	Pre-release	JL	MF	SP

LEGEND

- Proposed permitted boundary
- 1. Digester 1
- 2. Digester 2
- 3. Digester 3
- 4. Proposed wet store
- 5. Proposed wet store
- 6. Pre-pasteurisation store
- 7. Post-pasteurisation store
- 8. Proposed biochar storage
- 9. Wet store pre-separated
- 10. Wet store
- 11. Pasturelands
- 12. Chaff room - packaging waste
- 13. Delivery of liquid food waste and Digestate disposal
- 14. Take off of pasteurised food waste
- 15. CWP ROOM
- 16. CWP ROOM
- 17. Proposed CWP2
- 18. Wood store
- 19. 4 x Liquid food waste tanks
- 20. External storage bunker
- 21. Sulfur
- 22. Separated floor stone
- 23. Carbon filter scrubbers
- 24. Weighbridge
- 25. Weighbridge office
- 26. Transformer
- 27. Separator
- 28. Rain

Scale 1:7500 @ A3

Client: Lower Road Bioenergy Limited

Project: Normal Variation Installation Permit

Title: Site Layout Plan

Earthcare TECHNICAL

Martin Potts
Charles
Glenneville
Helen POC 0893
Tel: 0300 300495
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Drawn	Checked	Approved	Revision
JL	MF	MF	A3

Date: March 2020
Scale: 1:7,500
Drawing Number: ETL3705/GP/SCALE/02/PRD
File Reference: ETL-003705.dwg

Permit number
EPR/FP3093VJ

Annex 1 of MCP

1. Rated thermal input (MW) of the medium combustion plant.	CHP1 – 1.9MWth (800kW CHP) CHP2 – 1.4MWth (600kW CHP) CHP3 – 1.4MWth (600kW CHP not installed, included to future proof site requirements) Total aggregated = 4.7MWth
2. Type of the medium combustion plant (diesel engine, gas turbine, dual fuel engine, other engine or other medium combustion plant).	All three are combined heat and power gas engines.
3. Type and share of fuels used according to the fuel categories laid down in Annex II.	Waste derived biogas termed as ‘Gaseous fuel other than natural gas’ in Annex II of the MCPD.
4. Date of the start of the operation of the medium combustion plant or, where the exact date of the start of the operation is unknown, proof of the fact that the operation started before 20 December 2018.	CHP1 (600kW) • first put into operation Jan/ Feb 2010 • taken off-line 06/04/16 • engine and generator replaced/ operational from <u>16/04/16</u> CHP2 (800kW) • first put into operation Feb/ March 2011 • After 6 years of use full engine replacement; • engine replaced (not generator) / operational from <u>02/06/16</u> CHP3 is not yet operational.
5. Sector of activity of the medium combustion plant or the facility in which it is applied (NACE code).	35.11 Production of electricity
6. Expected number of annual operating hours of the medium combustion plant and average load in use.	8,000 hours per year 91% load in use
7. Where the option of exemption under Article 6(3) or Article 6(8) is used, a declaration signed by the operator that the medium combustion plant will not be operated more than the number of hours referred to in those paragraphs.	Not applicable.
8. Name and registered office of the operator and, in the case of stationary medium combustion plants, the address where the plant is located.	<u>Operator</u> Lower Reule Bioenergy Limited Registered office: 4th Floor 36 Spital Square, London, United Kingdom, E1 6DY Address where MCPs are located: Brookfields Anaerobic Digestion Plant Brookfield Farm

	Lower Reule Church Eaton Stafford Staffordshire ST20 0BG
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END OF PERMIT