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Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Advantage Biogas Limited
Whitchurch Biogas AD Plant
Broughall Fields Farm
Ash Road
Whitchurch
Shropshire
SY13 4DE

Permit number EPR/JP3431RD

Whitchurch Biogas AD Plant Permit number EPR/JP3431RD

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows:

The Installation is located at Broughall Fields Farm, Ash Road, Whitchurch at national grid reference SJ 55498 40669. The Installation is bordered to the north and west by an industrial estate (Agro Merchants Whitchurch); to the south by a railway line and public footpath and to the east by arable farmland. The Whitchurch Bypass highway runs between the industrial estate and the site. The nearest residential property is Broughall Fields Farmhouse, located about 150 metres to the north east of the site. There are four internationally designated ecological sites within 10 km of the Installation. Brown Moss Site of Special Scientific Interest (SSSI) and three non-statutory sites are located within 2 km of the Installation.

The Installation is an existing biological treatment facility processing non-waste feedstock by anaerobic digestion (AD). This permit application is for the processing of up to 50,000 tonnes per annum of waste (chicken manure) and non-waste feedstocks (silage and energy crops) and will comprise the following infrastructure:

- Anaerobic digestion plant (one primary digester and one secondary digester);
- Three silage clamp areas and a waste storage area;
- A liquid feedstock reception tank;
- Combustion plant consisting of four combined heat and power (CHP) engines (1.57 MWth each),
 one dual fuel boiler (0.5 MWth) and one emergency flare;
- Wood drying area consisting of twelve units;
- Two digestate storage lagoons and an attenuation pond

Energy crops (whole crop maize, rye, beet and grass silage) will be delivered to site via tractor /trailer and will be stored in the storage clamps under cover. The silage will be taken from the clamps and loaded into a mixing unit via a loading shovel. In the mixing unit, recirculated digestate from the digesters will be mixed with the silage to create a slurry which is then transferred into the digesters by pumping. Liquid whey permeate feedstock (or other non-waste liquid feedstock) will be delivered to the site via tanker and stored in the liquid feedstock reception tank prior to transfer to the digesters via a closed pipeline. Chicken manure will be brought to the site in 30 m³ sealed metal box units. The boxes will be brought to the site directly from the producer and coupled to a fixed in situ enclosed auger. Manure will be moved from the box to the auger via an internal moving floor arrangement within the box. The manure will be conveyed directly into the digesters in this way via an enclosed auger system to minimise emissions of odour and release of ammonia.

Anaerobic digestion will take place via a two-step process in one primary and one secondary digester with an average hydraulic retention time of 60 to 70 days across both digesters, dependent on final feedstock mixes. The temperature in the digesters will be maintained between 38°C and 42°C. Biogas generated in the digesters will be stored in two gas storage bags in the roof space above the primary and secondary digester.

Following additional treatment, the biogas will be subsequently combusted in four CHP engines (which are existing medium combustion plant) to produce electricity and heat. The majority of the electricity produced will be transferred for use at the industrial estate with a proportion used at the facility. The heat produced from the CHP engines will be recovered via heat exchangers and integrated in the process heating requirements including the pasteurisation of waste and drying of non-waste wood at the Installation. Biogas will be burnt in the emergency flare in the event it cannot be utilised by the CHP engines.

Following digestion, the by-product from the process (whole digestate) will be transferred to a pasteurisation tank for heat treatment at 70°C for a minimum of one hour. The pasteurised digestate will be separated into

solid and liquid fractions by an external separator by means of a chute. The liquid fraction of the digestate will be transferred from the separator to holding tanks prior to despatch for use off-site by tanker. The operator proposes to install two digestate storage lagoons which will be constructed in accordance with the Silage, Slurry and Agricultural Fuel Oil (England) Regulations. The solid fraction of the digestate will be collected and stored temporarily on site under cover prior to removal for storage in field heaps at the intended site of spreading. Both fractions of the digestate will be used as a soil improver or agricultural fertiliser at off-site fields. This environmental permit does not authorise the spreading of digestate on any land.

Main releases to air will be odour emissions from the processing of waste and emissions from the combustion of biogas (CHP engines, boiler and emergency flare). Oxides of nitrogen, sulphur dioxide, carbon monoxide and total volatile organic compounds will be monitored periodically. Rainwater accumulating within the concrete bund area will be collected in an attenuation pond fitted with a manual shut-off valve. The operator shall carry out a water quality analysis prior to final discharge to surface water. Emission limits for direct discharges to a receiving water body apply to this Installation in accordance with the Waste Treatment Best Available Techniques (BAT) Conclusions 2018.

The site is provided with surfacing and secondary containment constructed in line with industry best practice standards to reduce the impact of pollution to surface water and groundwater. An Environmental Management System (EMS) will be in place prior to the commencement of site operations.

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

| Status log of the permit | | | | |
|--|---|--|--|--|
| Description | Date | Comments | | |
| Application EPR/JP3431RD/A001 | Duly made 19/03/19 | Application for an anaerobic digestion facility with combustion of resultant biogas. | | |
| Additional information received | 24/07/19, 25/07/19, 14/08/19, 16/08/19, 18/10/19, 01/11/19, 11/11/19, 25/11/19, 03/12/19. | Response to Schedule 5 notice dated 24/06/19. | | |
| Permit determined (Billing reference: JP3431RD) | 13/01/20 | Permit issued to Advantage Biogas Limited. | | |

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/JP3431RD

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

Advantage Biogas Limited ("the operator"),

whose registered office is

6-8 Goodwood Road Keytec 7 Business Park Pershore Worcestershire WR10 2JL

company registration number 09662571

to operate an installation at

Whitchurch Biogas AD Plant Broughall Fields Farm Ash Road Whitchurch Shropshire SY13 4DE

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

| Name | Date |
|--------------|------------|
| Maxine Evans | 13/01/2020 |
| | |

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

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

1.2 Energy efficiency

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

1.3 Efficient use of raw materials

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

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

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

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

2 Operations

2.1 Permitted activities

- 2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").
- 2.1.2 The activities shall be undertaken in accordance with best available techniques.
- 2.1.3 All process plant and equipment shall be commissioned, operated and maintained and shall be fully documented and recorded in accordance with the manufacturer's recommendations.
- 2.1.4 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 plan at schedule 7 to this permit.

2.3 Operating techniques

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

2.3.7 Waste pre-acceptance and acceptance procedures shall be undertaken in accordance with best available techniques.

2.4 Improvement programme

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

2.5 Pre-operational conditions

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

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.
- 3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.
- 3.1.4 For the following activities referenced in schedule 1, table S1.1 (AR4), 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.

3.2 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 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.
- 3.2.3 The operator shall implement a leak detection and repair (LDAR) programme to detect and mitigate the release of volatile organic compounds.

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.

3.6 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;
 - 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; and
 - (e) implement the pests management 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 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
 - 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.

4.4 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 ac | | | Limits of specified | |
|--------------------|---|---|---|--|
| 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 | R3: Recycling/reclamation of organic substances which are not used as solvents | From receipt of waste and non-waste feedstock through to digestion and recovery of by-products (digestate). | |
| | tonnes per day if the only waste treatment activity is anaerobic digestion) involving biological treatment. | | Anaerobic digestion of waste and non-waste in two 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 pretreatment and despatch for anaerobic digestion on site. Storage of waste on an anaerobic digestion on site. | |
| | | | impermeable surface with sealed drainage. Waste types suitable for acceptance are limited to those specified in Table S2.2. | |
| AR3 | Physical treatment for the purpose of recycling | R3: Recycling/reclamation of organic substances which are not used as solvents | From the receipt of waste to despatch for anaerobic digestion or despatch off site for recovery. | |
| | | | Mixing of waste and non- waste in Trioliet units on impermeable surface with sealed drainage system. Waste types suitable for acceptance are limited to those specified in Table S2.2. | |
| | | | Post-treatment of resultant digestate on an impermeable surface with sealed drainage system, | |

| Activity reference | Activity listed in Schedule 1 of the EP Regulations | Description of specified activity and WFD Annex I and II operations | | | |
|--------------------|---|--|--|--|--|
| | | | including centrifuge or pressing and addition of thickening agents (polymers). | | |
| | | | Heat treatment (pasteurisation) of waste in one tank for the purpose of recovery. | | |
| | | | Biogas cleaning by biological or chemical scrubbing and use of carbon filtration prior to release to atmosphere. | | |
| AR4 | Steam and electrical power supply | R1:Use principally as a fuel to generate energy | From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion gases. | | |
| | | | Combustion of biogas in four combined heat and power (CHP) engines with an aggregated thermal input of 6.28 MWth. | | |
| | | | Combustion of biogas in one auxiliary boiler with a thermal input of 0.5 MWth. | | |
| 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 one auxiliary flare required only during periods of breakdown or maintenance of the CHP engines and/or auxiliary boiler. | | |
| AR6 | Raw material storage | Storage of raw materials including lubrication oil, antifreeze, glycerol, 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 | Storage of raw biogas produced from on-site | | |

| 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 |
|--------------------|---|--|--|
| | | R12 (excluding temporary storage, pending collection, on the site where it is produced) | anaerobic digestion in roof space of 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 storage tanks and two lagoons (The use of the lagoons will commence on completion of preoperational condition 1 in Table S1.4B and approval by the Environment Agency). |
| | | | Storage of processed uncertified solid digestate in covered piles in the designated material storage bay. |
| AR9 | Surface water collection and storage | Collection and storage of site surface water in one attenuation pond. | From the collection of site surface water to re-use within the facility or discharge to surface water. |
| AR10 | Wood drying | Drying of non-waste wood in 12 log drying units using residual heat from CHP engines. | From the collection of heat from CHP engines to use in drying and release to atmosphere. |

| Table S1.2 Operating techniques | | | | |
|---|--|----------|--|--|
| Description | Description Parts | | | |
| Application EPR/JP3431RD/A001 | HC1534-16 Measures to Demonstrate BAT v.1.1 in response to section 3a – technical standards, Part B3 of the application form. | 19/03/19 | | |
| | HC1534-08 Fugitive Emissions Plan v1.0 HC1534-11 Raw Materials List v1.0 | | | |
| | | | | |
| | HC1534-12 Environmental Monitoring v1.0 HC1534-20 Accident Management Plan v1.0 | | | |
| Response to Schedule 5 Notice dated 24/06/19 | Operating techniques described in the responses to the Notice: | 24/07/19 | | |
| | Response to question 7 (site storage clamps); Response to question 12 (process monitoring); | | | |
| | Response to question 18 (storage procedures for solid fraction) except reference to no covering of material storage bay) | | | |
| | Operating techniques described in the responses to the Notice: | 14/08/19 | | |
| | Response to question 10 (effluent collection tank) Qualitative Environmental Risk Assessment v1.1 | | | |
| | Operating techniques described in the responses to the Notice: | 18/10/19 | | |
| | Response to question 5 (raw materials) Response to questions 8 and 9 (construction standards for storage clamps and site secondary containment) Response to question 13 (process monitoring) Response to questions 14 to 17 and 19 (management of odour emissions) | | | |
| | Odour management plan v1.3 | 11/11/19 | | |

| Table S1.3 Ir | Table S1.3 Improvement programme requirements | | | | |
|---------------|---|------------|--|--|--|
| Reference | Requirement | Date | | | |
| IP1 | The operator shall submit a report to the Environment Agency for approval detailing the implementation of the three recommendations within the Noise Impact Assessment Report DYN010814_2A/5 Rev 1 (dated February 2019). | 31/07/2020 | | | |
| | The report must be written by an experienced and suitably qualified person in accordance with the procedures given in BS4142:2014 and must also demonstrate that the mitigation measures will adhere to the recommendations specified in the Noise Impact Assessment Report DYN010814_2A/5 Rev 1 and our Horizontal Guidance for Noise Part 2 – Noise Assessment and Control. | | | | |
| | The report must also contain information to demonstrate that the barrier provides the attenuation predicted in the Noise Impact Assessment Report DYN010814_2A/5 Rev 1 (dated February 2019). | | | | |

| Table S1.4A Pre- | Table S1.4A Pre-operational measures | | |
|------------------|--|--|--|
| Reference | Pre-operational measures | | |
| 1 | At least 2 weeks (or any other date as agreed with the Environment Agency) prior to commencement of site operations with waste, the operator shall submit a written copy of the final Site Environmental Management System (EMS) and make available for inspection all documents and procedures which form part of the site EMS. | | |
| | The EMS shall cover all activities at the installation and shall be in accordance with the Environment Agency Guidance – How to develop a management system: environmental permits and BAT Reference Document for Waste Treatment (the BREF). The EMS shall include the techniques the operator relies upon to manage the operation, accidents (including flooding), closure and decommissioning of the site. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of this permit. | | |
| 2 | At least 2 weeks (or any other date as agreed with the Environment Agency) prior to commencement of site operations with waste, the operator shall submit a report to the Environment Agency for approval detailing the implementation of the recommendations within the Bund Investigation Works Report GGP28079-02 (dated August 2019). | | |
| | The report shall confirm that works have been completed by a qualified engineer and in accordance with industry standards with respect to the internal bund slab around the CHP engines and the extension of the bund behind the liner at the corner of Clamp 1 as recommended by the Bund Investigation Works Report. | | |

| Table S1.4B P | Table S1.4B Pre-operational measures for future development | | | | |
|---------------|---|--|--|--|--|
| Reference | Operation | Pre-operational measures | | | |
| 1 | Digestate storage lagoons | At least 8 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of use, the operator shall ensure that a review of the design, method of construction and integrity of the proposed digestate storage lagoons is carried out by a qualified engineer. | | | |
| | | The review shall compare the constructed digestate storage lagoons against the standards set out in CIRIA C759 – Livestock manure and silage storage infrastructure for agriculture or other relevant industry standard. | | | |
| | | The review shall include: | | | |
| | | the physical condition of the digestate storage lagoons; | | | |
| | | the suitability of the lagoons for providing storage when subjected to the dynamic and static loads; | | | |
| | | any work required to ensure compliance with the standards set out in CIRIA C759 or other relevant industry standard; and | | | |
| | | a preventative maintenance and inspection regime | | | |
| | | A written report of the review shall be submitted to the Environment Agency detailing the review's findings and recommendations. Remedial action shall be taken to ensure that the digestate storage lagoons meet the standards set out in the technical guidance documents and implement the maintenance and inspection regime. | | | |

Schedule 2 – Waste types, raw materials and fuels

| Table S2.1 Raw materials and fuels | | |
|------------------------------------|--|--|
| Raw materials and fuel description | Specification | |
| Vegetable matter (energy crops) | Substantially free of non-vegetable matter | |
| Maize silage | Substantially free of non-vegetable matter | |

| Table S2.2 Permitte | d waste types and quantities for anaerobic digestion | | | |
|---------------------|---|--|--|--|
| Maximum quantity | The total site annual throughput consisting of waste and non-waste feedstock shall not exceed 50,000 tonnes. | | | |
| Exclusions | Wastes having any of the following characteristics shall not be accepted: waste that is not biodegradable; biodegradable waste that is significantly contaminated with non-biodegradable contaminants like plastic and litter beyond incidental level of 0.5% by volume; wastes containing treated wood and post-consumer wood, wood-preserving agents or other biocides, 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 2011. | | | |
| 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 03 | plant tissue waste | | | |
| 02 01 06 | animal faeces, urine and manure (including spoiled straw) only | | | |
| 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 | | | |

Schedule 3 – Emissions and monitoring

| Emission point ref. & location | Source | Parameter | Limit (including unit) | Reference period | Monitoring frequency | Monitoring standard or method |
|---|--|---|------------------------------|-------------------|----------------------|-------------------------------|
| A1 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Primary digester biogas over/under pressure relief valve | No parameter set | No limit set | | | |
| A2 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Secondary digester biogas over/under pressure relief valve | No parameter set | No limit set | | | |
| A3 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Primary digester foam relief flap | No parameter set | No limit set | | | |
| A4 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Secondary digester foam relief flap | No parameter set | No limit set | | | |
| A5 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Auxiliary boiler | No parameter set | No limit set | | | |
| A6 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Emergency flare stack [note 1] | Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂) | 150 mg/m ³ | Hourly average | [note 2] | BS EN 14792 |
| | | Carbon monoxide | 50 mg/m ³ | | | BS EN 15058 |
| | | Total VOCs | 10 mg/m ³ | | | BS EN 12619:2013 |
| A7 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | CHP engine stack 1 [note 3] | Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂) | 500 mg/m ³ | Hourly average | Annual | BS EN 14792 |
| | | Sulphur dioxide | 350 mg/m ³ | | | BS EN 14791 |
| | | Carbon monoxide | 1400 mg/m ³ | | | BS EN 15058 |
| | | Total VOCs | 1000 mg/m ³ | | | BS EN 12619:2013 |
| A8 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | CHP engine stack 2 [note 3] | Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂) | 500 mg/m ³ | Hourly average | Annual | BS EN 14792 |

| Table S3.1 Point sou | rce emissions to a | ir – emission lir | nits and mon | itoring requir | ements | |
|--|-----------------------------------|---|------------------------------|---------------------|----------------------|-------------------------------|
| Emission point ref. & location | Source | Parameter | Limit (including unit) | Reference period | Monitoring frequency | Monitoring standard or method |
| | | Sulphur dioxide | 350 mg/m ³ | | | BS EN 14791 |
| | | Carbon monoxide | 1400 mg/m ³ | | | BS EN 15058 |
| | | Total VOCs | 1000 mg/m ³ | | | BS EN 12619:2013 |
| A9 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | CHP engine stack 3 [note 3] | Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂) | 500 mg/m ³ | Hourly average | Annual | BS EN 14792 |
| | | Sulphur dioxide | 350 mg/m ³ | | | BS EN 14791 |
| | | Carbon monoxide | 1400 mg/m ³ | | BS EN 15058 | |
| | | Total VOCs | 1000 mg/m ³ | | | BS EN 12619:2013 |
| FBW/16/1002/M/231 sta | CHP engine stack 4 [note 3] | Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂) | 500 mg/m ³ | Hourly average | Annual | BS EN 14792 |
| | | Sulphur dioxide | 350 mg/m ³ | | | BS EN 14791 |
| | | Carbon monoxide | 1400 mg/m ³ | | | BS EN 15058 |
| | | Total VOCs | 1000 mg/m ³ | | | BS EN 12619:2013 |
| A11 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Oil storage vent | No parameter set | No limit set | | | |
| A13 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Emergency generator exhaust | No parameter set | No limit set | | | |
| A14 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Pasteuriser vent | No parameter set | No limit set | | | |
| A29 to A44 on Drawing FBW/16/1002/M/231 4 Issue PO4 dated 11/08/19 | Log drying bin 1 to 12 | No parameter set | No limit set | | | |

Note 1 - These limits are based on normal operating conditions and load - temperature 0°C (273K); pressure: 101.3 kPa and oxygen: 3 per cent (dry gas). Uncertainty allowance as stated in Environment Agency guidance TGN M2.

Note 2 - 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 S3.1 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 |

Note 3 - These limits are based on normal operating conditions and load - temperature 0°C (273K); pressure: 101.3 kPa and oxygen: 5 per cent (dry gas). Uncertainty allowance as stated in Environment Agency guidance TGN M2.

| Emission point ref. & location | Source | Parameter | Limit (incl. unit) | Reference Period | Monitoring frequency | Monitoring standard or method |
|--|--|---|--|--|--|-------------------------------|
| W1 on Drawing FBW/16/1002/M/2314 Issue PO4 dated 11/08/19 | Site surface water /water from bunded areas collected | Oil or grease | No visible oil or grease | | Weekly | Visual assessment |
| | in attenuation pond | Total organic carbon (TOC) [Note 1] | 60 mg/l | Spot sample or flow- proportional composite sample | Once every month | BS EN 1484 |
| | Chemical oxygen demand (COD) [Note 1] | 125 mg/l | Spot sample or flow- proportional composite sample | Once every month | In accordance with M18 – Monitoring of discharges to water and sewer | |
| | Total nitrogen | 25 mg/l | Spot sample or flow- proportional composite sample | Once every month | BS EN ISO 11905-1 or BS EN 12260 | |
| | Total phosphorus | 2 mg/l | Spot sample or flow- proportional composite sample | Once every month | In accordance with M18 – Monitoring of discharges to water and sewer | |
| | Total suspended solids | 30 mg/l | Spot sample or flow- proportional composite sample | Once every month | BS EN 872 | |
| | рН | 6-9 | Spot sample or flow- proportional composite sample | | In accordance with M18 – Monitoring of discharges | |

| | | | to water |
|--|--|--|-----------|
| | | | and sewer |

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

| Table S3.3 Process mo | nitoring requirements | | | | |
|---|---------------------------------------|-------------------------------|---|--|--|
| Emission point reference or source or description of point of measurement | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications | |
| Digester feed | рН | As described in | As described | Process monitoring | |
| (digestion process) | Alkalinity | the site operating techniques | in the site operating | to be recorded using SCADA | |
| | Temperature | | techniques | system | |
| | Hydraulic loading rate | 9 | | | |
| | Organic loading rate | | | | |
| | Volatile fatty acids concentration | | | | |
| | Ammonia | | | | |
| | Digester liquid level | | | | |
| | Digester foam level | | | | |
| Biogas production | Biogas flow | Continuous | As described | Process monitoring | |
| | Methane | Continuous | in the site operating | to be recorded using SCADA | |
| | CO ₂ | Continuous | techniques | system. | |
| | O ₂ | Continuous | | 0 | |
| | Pressure | Continuous | | Gas monitors to be calibrated every 6 | |
| | Hydrogen sulphide | Daily | | months or in accordance with the manufacturer's recommendations. | |
| Digester operation | Agitation /mixing | Once a year | | | |
| | Tank capacity and sediment assessment | | | | |
| Waste reception and storage areas; Digesters and storage tanks | Odour | Daily | Olfactory monitoring | Odour detection at the site boundary. | |
| Carbon filtration system | Temperature | Daily | Recorded | Carbon filtration | |
| (biogas upgrading plant) | Moisture | Daily | using industry standard techniques | system shall be regularly checked and maintained to ensure appropriate | |
| | Efficiency assessment | Yearly | | temperature and moisture content. | |
| | | | | Carbon filter(s) to be replaced when saturated in accordance with manufacturer's recommendations. | |

| Table S3.3 Process mor | nitoring requirements | | | |
|---|---|---|---|---|
| Emission point reference or source or description of point of measurement | Parameter | Monitoring frequency | Monitoring standard or method | Other specifications |
| Diffuse emissions from gas storage membrane / | VOCs including methane | Every 6 months | | Leak detection and repair (LDAR) |
| stacks /digestate storage lagoons | Odour | | | programme |
| | Ammonia | | | |
| Site meteorological conditions | Wind speed. wind direction, temperature | Continuous | As specified in the site operating techniques | 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 | Operational hours | As required | Recording using a SCADA system | Date, time and duration of use of emergency flare shall be recorded. |
| Pressure relief valves | Biogas release | In accordance with manufacturer's recommendations | Daily visual inspection or remote monitoring | Date, time and duration of use of pressure relief events shall be recorded. Annual mass release shall be calculated. Pressure relief valves to be reseated after release. |
| Digesters and storage tanks | Integrity checks | Weekly | Visual assessment | |
| Storage lagoons and storage tanks | Volume | Daily | Visual or flow metre measurement | 750 mm freeboard must be maintained for the storage lagoons. |

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 | A7, A8, A9, A10 | Every 12 months | 1 January | |
| Parameters as required by condition 3.5.1. | | | | |
| Emissions to water Parameters as required by condition 3.5.1. | W1 | Every 6 months | 1 January | |
| Process monitoring Parameters as required by condition 3.5.1. | 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 | tonnes or m ³ | |
| Solid digestate | tonnes | |

| 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 | % | |
| Auxiliary boiler usage | Annually | hours | |

| Table S4.4 Reporting forms | | | | |
|----------------------------|---|--------------|--|--|
| Media/parameter | Reporting format | Date of form | | |
| Air | Form air 1 or other form as agreed in writing by the Environment Agency | 13/01/2020 | | |
| Water | Form water 1 or other form as agreed in writing by the Environment Agency | 13/01/2020 | | |
| Water usage | Form water usage 1 or other form as agreed in writing by the Environment Agency | 13/01/2020 | | |

| Table S4.4 Reporting forms | | | | |
|------------------------------|--|--------------|--|--|
| Media/parameter | Reporting format | Date of form | | |
| Energy usage | Form energy 1 or other form as agreed in writing by the Environment Agency | 13/01/2020 | | |
| Other performance indicators | Form performance 1 or other form as agreed in writing by the Environment Agency | 13/01/2020 | | |
| Waste returns | E-waste Return Form or other form as agreed in writing by the Environment Agency | | | |

Schedule 5 - Notification

These pages outline the information that the operator must provide.

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

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

Part A

| Permit Number | |
|--|--|
| Name of operator | |
| Location of Facility | |
| Time and date of the detection | |
| | |
| | any malfunction, breakdown or failure of equipment or techniques, nce not controlled by an emission limit which has caused, is pollution |
| To be notified within 24 hours of | detection |
| Date and time of the event | |
| Reference or description of the location of the event | |
| Description of where any release into the environment took place | |
| Substances(s) potentially released | |
| Best estimate of the quantity or rate of release of substances | |
| Measures taken, or intended to be taken, to stop any emission | |
| Description of the failure or accident. | |
| | |
| (b) Notification requirements for t | the breach of a limit |
| To be notified within 24 hours of | detection unless otherwise specified below |
| Emission point reference/ source | |
| Parameter(s) | |
| Limit | |

Measured value and uncertainty

Date and time of monitoring

| (b) Notification requirements for t | he breach of a li | mit | |
|---|-------------------|------------------------|-------------------------|
| To be notified within 24 hours of | detection unless | otherwise specified | below |
| Measures taken, or intended to be taken, to stop the emission | | | |
| Time periods for notification follo | wing detection o | of a breach of a limit | |
| Parameter | | | Notification period |
| | | | |
| | | | |
| (c) Notification requirements for t | | any significant adver | se 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 submitt | | n as practica | ble |
| Any more accurate information on the notification under Part A. | ne matters for | | |
| Measures taken, or intended to be to a recurrence of the incident | aken, to prevent | | |
| Measures taken, or intended to be talimit or prevent any pollution of the ewhich has been or may be caused by | environment | | |
| The dates of any unauthorised emis facility in the preceding 24 months. | sions from the | | |
| | | | |
| Name* | | _ | |
| Post | | | |
| Signature | | | |
| Date | | | |

^{*} authorised to sign on behalf of the operator

Schedule 6 - Interpretation

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

"accident management plan" means a plan that identifies risks and failures which can have an impact on the environment or have environmental consequences. The plan forms part of the management system. The plan must minimise the potential causes and consequences and identify clearly the roles, responsibilities and action to be taken to minimise the consequences of accidents. This includes measures to prevent and control fires on site, DSEAR assessment and clearly marked zones.

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

"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 the 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;
- 'best' means most effective in achieving 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 aby 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.

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

"competent persons and resources" means that a technically competent person accredited to a relevant scheme must attend site and record their attendance, and that all roles and responsibilities are clearly stated in the management systems along with records of operatives' training.

"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.

"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.

"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 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.

"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 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.

"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.

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 5% dry for liquid and gaseous fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

"year" means calendar year ending 31 December.

Schedule 7 – Site plan



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END OF PERMIT