Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

Orsted REnescience Northwich O&M Limited

REnescience Northwich
Lostock Works
Griffiths Road
Lostock Gralam
Cheshire

CW9 7NU

Variation application number

EPR/VP3338RD/V004

Permit number

EPR/VP3338RD

REnescience Northwich
Permit number EPR/VP3338RD

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.

The notice incorporates the following changes and improvements at the site:

- The installation of two additional ballistic separator units, the same as the currently installed unit. The additional units are to provide stand by capacity for improved operational efficiency by reducing downtime. Only one unit will be operated at any time.
- Extensions to the Bio-reactor Hall, Sorting Hall and Loading Hall, to accommodate the new ballistic separator units and allow further operational space and flexibility.
- The installation of additional odour abatement systems, including the installation of a new carbon filter which will treat the air from within the sorting hall and the installation of a scrubber unit to treat emissions from the reaction tanks in the reactor hall.
- The like for like replacement of equipment for the 3D washing, the 2D dewatering, the dewatering and the 2D washing and sieving processes.
- There will be no change to the waste throughput or types of wastes and waste codes to be accepted at the facility and no increase in the maximum quantity of waste stored.

The schedules specify the changes made to the permit.

The main features of the installation are as follows:

The facility is situated off the A530 Griffiths Road, Lostock Gralam, Cheshire on the decommissioned chlorine manufacturing plant to the western side of the ‘Lostock Works’ grid reference SJ 67920 74201.

In the area immediately around the site are:

- to the north: rail lines and sidings, open space/pond, warehouses/commercial development and Manchester Road;
- to the east: Imerys chemical works, Tata Chemicals chemical works, INEOS brine purification plant and the Trent and Mersey Canal;
- to the west: a cleared brownfield site and rail siding;
- to the south: Wade Brook, a rail siding and conveyor structure, ECO-Option (formerly Edelchemie) chemical recycling facility, and Griffiths Park.

To the south of the site is Griffiths Park, a former lime bed and landfill that has been redeveloped into a park/recreation area. This is separated from the site by a rail siding, Wade Brook, conveyor structure and chemical recycling works, adjacent to the park’s northern boundary.

The Trent and Mersey Canal runs north-south to the east of the site. Its towpath (around 420 m from the site at the closest point) is a public right of way, separated from the chemical works by security fencing. A further public right of way branches west from the canal towpath to connect with Works Lane, around 250 m north-east of the site boundary at the closest point.

The ecological designated sites within 10 km of the proposed plant are listed below.

- West Midland Mosses Special Area of Conservation – 9.2 km from site;

- Midland Meres and Mosses Phase1 and Phase 2 Ramsar sites – 9.2 km from site; and
- 16 SSSIs – the two closest being Witton Lime Beds (2.4 km from site) and Plumley Lime Beds (2.6 km from site).
- Ashton's and Neumann's Flashes (a local wildlife site) are located approximately 900 m from the site.

The site is accessed via a private road serving the industrial facilities on the Lostock Works site, from a junction with the A530.

The site is located approximately 0.6 km from the residential outskirts of Northwich and Rudheath to the west and south (or around 2 km from Northwich town centre), and 1.2 km from the village of Lostock Gralam to the east.

The closest residences are on the A559 Manchester Road, approximately 180 m to the north of the site boundary, separated from it by rail sidings, a tree belt and area of open space, warehouses and commercial developments, and the A559. There are further residences and commercial land uses along Manchester Road and around the A559 and A530 junction to the east, between the site and Lostock Gralam.

The facility will accept and treat up to 144,000 tonnes per annum of municipal solid waste, fines and commercial and industrial wastes (including the waste transfer station).

The waste will be mixed with hot water and then passed through enzyme reactors. The output from the enzyme reactors comprise bio liquid and solids, that are removed for segregated recovery in a chain of processes including production of Refuse Derived Fuel (RDF) and Solid Recovered Fuel (SRF). The bio liquid will be passed through an anaerobic digester, to produce biogas. The biogas will be used to power four combined heat and power engines (CHP) on site, to produce electricity for export to local distribution or to the national grid with waste heat being utilised within the waste treatment process. Approximately 6.3 MWe gross of renewable electricity will be generated in the CHP engines, of which at least 5 MWe will be exported to the grid or distributed locally.

The facility will operate for 8,000 hours a year. Waste renewable heat from the gas engines will also be utilised on site to heat and clean the water used in the process.

The facility will also accept source segregated materials into the transfer station, which will not be subject to treatment within the facility, but will be stored and bulked for onward transfer. This part of the facility will handle up to 30,000 tonnes per year of waste.

Main releases to air will be from the CHP engines, emergency flare and carbon filter exhausts. Biogas will be burnt in the emergency flares in the event of breakdown and/or maintenance of the CHP engines.

Uncontaminated site surface water from non-operational parts of the site and from the secondary bund around the digesters will be discharged to Wade Brook.

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/VP3338RD/A001	Duly made 17/02/16	Application for a mechanical and biological treatment (MBT) facility with combustion of biogas.
Application	01/12/15	Sections 1 – 6 of the application document in response to section 3 – technical standards, Part B of the application form.
Additional Information	18/02/16	Engine specifications
Additional information	23/02/16	Additional information detailing air quality and noise

Status log of the permit		
Description	**Date**	**Comments**
	16/03/16 18/03/16	issues.
Additional information	09/03/16 and 10/03/16	Additional information concerning anaerobic digestion tank bund design.
Additional information	07/04/16	Addendum to the Application.
Response to Schedule 5 Notice dated 15/03/16	08/04/16 and 20/04/16	Response to question 1 submitting the Fire Prevention Plan and letter providing additional clarification.
Response to Schedule 5 Notice dated 15/04/16	06/05/16, 10/05/16 and 01/07/16	Response to question 1–3 and 7–48 detailing Noise control, emission and monitoring, process and output monitoring, site design and site operation and process. Supplementary Information regarding odour management and abatement.
Additional Information	15/07/16	Additional information relating to Odour Management and Waste bunker design and management.
Additional Information	16/08/16	Additional information relating to waste bunker construction and management.
Response to Schedule 5 Notice dated 19/08/16	07/09/16	Response to question 1 and 30 detailing clarification of operations and process monitoring
Additional information received	26/09/16	Confirmation of site boundary and emission points.
Additional information received	28/09/16	Confirmation of specification of activated carbon.
Permit determined	30/09/16	Permit issued to Orsted REnescience Northwich O&M Limited.
Environment Agency Variation determined EPR/VP3338RD/V002	15/03/17	Varied and consolidated permit issued in modern condition format.
Application EPR/VP3338RD/V003	Duly Made 08/09/17	Application to add Solid Recovered Fuel (SRF) production to the permit
Schedule 5 Notice dated 09/11/17	Response received 13/11/17	Data for derivation of background noise levels.
Variation determined EPR/VP3338RD/V003 (Billing ref: SP3830JL and EAWML 403132)	Issued 02/03/18	Varied and consolidated permit issued in modern condition format.
Application EPR/VP3338RD/V004	Duly made 27/02/19	Application to add activated carbon odour abatement to the sorting hall, caustic scrubber to the reactor exhaust and to install two additional separators.
Schedule 5 Notice dated 21/03/19	Response received 05/04/19	Additional information on revised odour management plan (OMP).
Additional information	Received	Clarification of Schedule 5 notice response

Status log of the permit		
Description	**Date**	**Comments**
	24/05/19	
Additional information	Received 29/05/19	Revised OMP
Additional information	Received 28/06/19	Details of building containment.
Variation determined EPR/VP3338RD/V004 Billing ref: YP3538QS	Issued 18/07/2019	Varied and consolidated permit issued in modern condition 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

Permit number

EPR/VP3338RD

Issued to

Orsted REnescience Northwich O&M Limited ("the operator")

whose registered office is

5 Howick Place

London

SW1P 1WG

company registration number 09666501

to operate regulated facilities

REnescience Northwich
Lostock Works
Griffiths Road
Lostock Gralam
Cheshire
CW9 7NU

to the extent set out in the schedules.

The notice shall take effect from 18/07/2019

Name	Date
Philip Lamb	**18/07/2019**

Authorised on behalf of the Environment Agency

Schedule 1

Table S1.1 referenced by condition 2.1.1 has been varied by the consolidated permit EPR/VP3338RD as a result of the application made by the operator.
The completion dates for IC8, IC9. IC10, IC11, IC12, IC13 and IC14 have been amended from "31/07/18 or other date agreed in writing with the Environment Agency" to "3 months from the date of issue of this variation notice, or other date agreed in writing with the Environment Agency"

New Improvement Condition IC15 has been raised as a result of the application made by the operator.
New Improvement Conditions IC15 has been raised to require the establishment of the set points for the flow and pressure alarms on the new extraction systems.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/VP3338RD

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/VP3338RD/V004 authorising,

Orsted REnescience Northwich O&M Limited ("the operator"),

whose registered office is

5 Howick Place

London

SW1P 1WG

company registration number 09666501

to operate an installation and waste operations at

REnescience Northwich
Lostock Works
Griffiths Road
Lostock Gralam
Cheshire
CW9 7NU

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

Name	Date
Philip Lamb	**18/07/2019**

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 AR17, 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 AR17, 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 AR17, 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 tables S2.2 and S2.3; and

(b) it conforms to the description in the documentation supplied by the producer and holder.

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.

2.4 WEEE storage

2.4.1 Spillage collection facilities and, where appropriate, decanters and cleanser-degreasers shall be provided and used as necessary.

2.4.2 WEEE shall be stored in areas provided with a weatherproof covering where appropriate or in containers providing a weatherproof covering where appropriate.

2.5 Improvement programme

2.5.1 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.

2.5.2 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.

2.6 Pre-operational conditions

2.6.1 The activities shall not be brought into operation until the measures specified in schedule 1 table S1.4A have been completed.

2.6.2 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, S3.2 and S3.3.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 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.

3.3.2 The operator shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

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 Pests

3.5.1 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.

3.5.2 The operator shall:

(a) 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;

(b) implement the pests management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.6 Fire prevention

3.6.1 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 Monitoring

3.7.1 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, S3.2 and S3.3;

(b) process monitoring specified in table S3.4

3.7.2 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.

3.7.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.7.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.7.4 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, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

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

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of the land and groundwater.

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

4.2 Reporting

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

4.2.2 For the following activities referenced in schedule 1; table S1.1, AR1 to AR17, 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.

4.3 Notifications

4.3.1 For the following activities referenced in schedule 1; table S1.1, AR1 to AR17, 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 For the following activities referenced in schedule 1; table S1.1, AR18, the Environment Agency shall be notified without delay following the detection of:

(a) 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;

(b) the breach of a limit specified in the permit; or

(c) any significant adverse environmental effects.

4.3.4 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.5 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.

4.3.6 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.

4.3.7 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.

4.3.8 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 For the following activities referenced in schedule 1; table S1.1, AR1 to AR17, 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.

4.4.3 For the following activities referenced in schedule 1; table S1.1, AR18, in this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "without delay", 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 involving biological treatment.	R3: Recycling/reclamation of organic substances which are not used as solvents	From receipt of waste from the bioreactor through to despatch for other on-site operations and recovery of by-products (digestate). Biological treatment of waste by anaerobic digestion for the purpose of recovery. Treatment of waste in four tanks followed by burning of biogas produced from the process vessels fitted with appropriate odour abatement. Treatment of waste in enclosed buildings fitted with appropriate odour abatement. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR2	S5.4 A (1) (a) (ii) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment	D9: Treatment for disposal of non-hazardous wastes in the evaporator	From the receipt of waste into the evaporator unit to storage and disposal of the concentrate. Treatment of wastewater from the onsite processes only.
AR3	S5.4 A (1) (b) (ii) Recovery or a mix of recovery and disposal of non-hazardous waste with a capacity exceeding 75 tonnes per day involving pre-treatment of waste for incineration or co-incineration.	R3: Recycling/reclamation of organic substances which are not used as solvents. D9: Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12	Preparation of Solid Recovered Fuel from Refuse Derived Fuel involving shredding and windsifting.
	Directly Associated Activity		
AR4	Storage of waste pending recovery or disposal.	R13: Storage of waste pending the operations numbered R1 and R12 (excluding temporary storage, pending collection, on the site where it is produced)	Undertaken in relation to Activity AR1, AR2 or AR3. From the receipt of permitted waste to pre-treatment and despatch for anaerobic digestion on site. Storage of residual wastes from

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**
			pre-treatment to despatch off- site for recovery and/or disposal. Storage of residual wastes from post treatment in the bioreactor to despatch off-site for recovery. Storage of waste in the liquid balancing tank (LBT) pending 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. No storage of hazardous waste shall be undertaken at the facility.
AR5	Physico-chemical and Biological treatment for the purpose of recycling – including: • Pre-treatment of waste to remove oversized and unsuitable materials • Pre-treatment of waste with enzymes. • Mechanical treatment of wastes from the bioreactor. • Sorting and baling of wastes to make Refuse Derived Fuel (RDF). • Post treatment of digestate and biogas. • Pasteurisation of digestate after anaerobic digestion • Washing of grit	R3: Recycling/reclamation of organic substances which are not used as solvents R4: Recycling/reclamation of metals and metal compounds R5: Recycling/reclamation of other inorganic compounds	Undertaken in relation to Activity AR1 or AR2. From the receipt of waste to despatch for anaerobic digestion biological treatment or despatch off site for recovery. Pre-treatment and treatment of waste shall be undertaken in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system. Pre-treatment of waste within the hydrothermal tank and with enzymes in the bioreactor tanks for the purpose of recovery. Pre-treatment of waste includes sorting, screening, mixing and maceration. Post-treatment of digestate in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system, including screening to remove contraries, centrifuge or pressing and addition of thickening agents (polymers) or drying for use in land reclamation (however, drying for the purpose of use as a fuel is not permitted). Heat treatment (pasteurisation) of waste in three tanks for the purpose of recovery. No treatment of hazardous waste shall be undertaken at the facility. Treatment operations shall be

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**
			limited to: Heat treatment of waste for the purpose of recovery. Physical treatment to recover 2D and 3D waste, plastic, metals and glass. Physical treatment including screening, crushing, baling and shredding for the purpose of recovery. Only one ballistic separator will be operated at any time. Physical treatment to recover 2D and 3D waste, plastic, metals and glass including manual and mechanical sorting/ separation, screening and shredding of non-hazardous waste for disposal (no more than 50 tonnes per day) or recovery. Washing to remove grit from residual waste. Washing only of recovered grit for recovery. No treatment of WEEE shall be undertaken at the facility. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR6	Odour Abatement	Treatment of odorous gases from the waste reception hall, digestate treatment building (DTB) and brine tank. Treatment of odorous gases from the Sorting Hall and reactor Hall.	Treatment of odorous compounds prior to release to air.
AR7	Physico-chemical treatment for the purpose of recycling • Biogas cleaning	R3: Recycling/reclamation of organic substances which are not used as solvents	Treatment of biogas including siloxane removal, desulphurisation and condensate removal.
AR8	Biological treatment for the purpose of recycling • pH balancing in Liquid Balancing Tank	R3: Recycling/reclamation of organic substances which are not used as solvents	pH balancing as a consequence of biological action within the Liquid Balancing Tank receiving directly tankered liquid wastes and partially treated liquid wastes from the bioreactor.
AR9	Heat and electrical power supply	R1:Use principally as a fuel to generate energy	Undertaken in relation to Activity AR1, AR2 or AR3. From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion

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**
			gases. Combustion of biogas in four combined heat and power (CHP) engines with an aggregated thermal input of 14 MW_{th}. Heat exported from CHPs to the evaporator in activity AR2.
AR10	Emergency flare operation	D10: Incineration on land	Undertaken in relation to Activity AR1, AR2 or AR3. From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases. Use of the auxiliary flare required only during periods of breakdown or maintenance of the CHP engines.
AR11	Combustion of compressed natural gas (CNG)	Combustion of natural gas in the CHP engine.	The combustion of CNG is only to be used for 'start up', and 'shut down' procedures. Storage and combustion of CNG in one or more CHP engine with a thermal input of 3.5 MW_{th}, to start up the process.
AR12	Gas storage	Storage of biogas produced from on-site anaerobic digestion of permitted waste in roof space of digesters.	Undertaken in relation to Activity AR1 or AR2. From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility.
AR13	Storage of treated wastes	R13: Storage of treated waste prior to being sent offsite for recovery D15: Storage of treated waste prior to being sent offsite for disposal	Storage of residual wastes from pre-treatment to despatch off- site for recovery and/or disposal. Storage of waste in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system.
AR14	Digestate storage	Storage of liquid digestate in Brine storage tanks. Storage of solid digestate on an impermeable surface in Digestate Treatment Building (DTB) within loaded trailer or digestate storage pit.	Undertaken in relation to Activity AR1. From the receipt of digestate produced from the on-site anaerobic digestion process to despatch for use off-site. Storage of treated solid digestate in an enclosed building. Also liquid digestate in the "Brine" tank. All storage shall be on an impermeable surface with a sealed drainage system. Digestate storage pit shall remain

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**
			covered.
AR15	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water in surface water drainage system.	Undertaken in relation to Activity AR1 or AR2. 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. From the collection of surface water from the secondary containment bund to reuse in the facility or, after being sampled and tested and verified uncontaminated, discharge off site. Contaminated surface water shall be collected and disposed of offsite. No process waters to be discharged to surface waters.
AR16	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, activated carbon, compressed natural gas (CNG), anti-foaming agents (as required) and ferric chloride, glycol and micronutrients (as required).	From the receipt of raw materials to despatch for use within the facility.
AR17	Storage of waste produced on site	Storage of waste pending recovery or disposal. Storage of spent activated carbon, digester/Liquid Balancing Tank grit, and biogas condensate	From production to despatch off site.

Activity reference	**Description of activities for waste operations**	**Limits of activities**
AR18	<u>Waste Transfer Station</u> 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)	Wastes shall be stored for no longer than 3 months. There shall be no storage of hazardous waste at the facility. Containers containing waste shall be covered and stored on an impermeable surface with a sealed drainage system. Waste types suitable for acceptance are limited to those specified in Table S2.3.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application	Sections 1 - 6 of the application document in response to section 3 – technical standards, Part B of the application form	01/12/15
Additional information	Additional information concerning anaerobic digestion tank bund design	09/03/16
Additional information	Addendum to the Application	07/04/16
Response to Schedule 5 Notice dated 15/03/16	Response to question 1 submitting the Fire Prevention Plan and letter providing additional clarification.	08/04/16 and 20/04/16
Response to Schedule 5 Notice dated 15/04/16	Response to question 1-3 and 7-48 detailing Noise control, emission and monitoring, process and output monitoring, site design and site operation and process. Odour abatement and management	06/05/16 and 10/05/16 01/07/16
Additional Information	Additional information relating to Odour Management also Waste bunker design and management	15/07/16
Additional Information	Additional information relating to Waste bunker construction and management	16/08/16
Response to Schedule 5 Notice dated 19/08/16	Response to question 1 and 30 detailing clarification of operations and process monitoring	07/09/16
Response to Schedule 5 Notice dated 19/08/16	Odour management plan reference Attachment 1 in response to Schedule 5 dated 19/08/16	07/09/16
Variation Application EPR/VP3338RD/V003	Supporting information document dated 23/08/17 JER1131_Application_to_Vary_Permit_EPRVP3338RD_V2 Non-Technical Summary and Section 2 Description of Process Changes and Management Techniques	Duly Made 08/09/17
Variation Application EPR/VP3338RD/V004	Supporting information document dated February 2019 JER 1131 Application to Vary Permit EPR/VP3338/RD/V003 All sections	Duly made 27/02/19
Response to Schedule 5 Notice dated 21/03/19	Additional information on revised odour management plan (OMP).	Received 05/04/19
Additional information	Clarification of Schedule 5 notice response	24/05/19
Additional information	Revised odour management plan	29/05/19
Additional information	Details of building containment	28/06/19

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC 1	The operator shall submit a revised Site Housekeeping Plan to the Environment Agency for written approval. The plan shall take into account the appropriate measures for management of the facility specified in the Environment Agency Draft Technical Guidance, How to comply with your environmental permit: Additional guidance for Mechanical Biological Treatment Sector (August 2013) or such other subsequent guidance as may be agreed in writing with the Environment Agency. Once approved, the plan shall be implemented from the date stipulated by	Complete

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	the Environment Agency and incorporated into the EMS. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.	
IC 2	The operator shall submit a revised Site Energy Efficiency Plan to the Environment Agency for written approval. The plan shall take into account the appropriate measures for management of energy specified in section 5.5 of the Environment Agency Draft Technical Guidance, How to comply with your environmental permit: Additional guidance for Mechanical Biological Treatment Sector (August 2013) and such other subsequent guidance as may be agreed in writing with the Environment Agency. Once approved, the plan shall be implemented from the date stipulated by the Environment Agency and incorporated into the EMS. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.	Complete
IC 3	The Operator shall prepare and submit to the Environment Agency for approval, a relevant, appropriate report, in line with Stages 1–3 set out within the European Commission Guidance concerning baseline reports dated May 2014 (Ref: 2014/C 136/03) and the Environment Agency H5 guidance or such other subsequent guidance as may be agreed in writing with the Environment Agency, and shall include but not be limited to the following: • An assessment to determine whether there is a possibility of soil and / or groundwater contamination from relevant hazardous substances (RHS) used, stored or released from site; • A review of existing soil and groundwater measurements to determine whether an appropriate baseline can be established for RHS in the locations that they will be used, stored or released, having regard to the possibility of soil and/or groundwater contamination; • Proposals to undertake additional site investigation works should soil and groundwater measurements be required to enable a baseline to be established for RHS in the locations that they will be used, stored or released, having regard to the possibility of soil and/or groundwater contamination. The operator shall undertake the work detailed in the proposal as approved, and from the date stipulated by the Environment Agency.	Complete
IC 4	The Operator shall prepare and submit to the Environment Agency for approval, a relevant, appropriate report, in line with Stages 4–6 set out within the European Commission Guidance concerning baseline reports dated May 2014 (Ref: 2014/C 136/03) and the Environment Agency H5 guidance or such other subsequent guidance as may be agreed in writing with the Environment Agency.	Complete
IC 5	The Operator shall prepare and submit to the Environment Agency for approval, a relevant, appropriate report, in line with Stage 7 and 8 as set out within the European Commission Guidance concerning baseline reports dated May 2014 (Ref: 2014/C 136/03) and the Environment Agency H5 guidance or such other subsequent guidance as may be agreed in writing with the Environment Agency. and shall include but not be limited to the following:	Complete

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	• Undertake any relevant intrusive/sampling works identified/highlighted within IC3 and 4 to enable an adequate baseline to be established for RHS in the locations that they will be used, stored or released, having regard to the possibility of soil and/or groundwater contamination in line with the requirements set out within Stage 7 of European Commission Guidance concerning baseline conditions and such other subsequent guidance as may be agreed in writing with the Environment Agency. • Prepare and submit a baseline report to the Environment Agency in line with the requirements set out within Stage 8 of the European Commission Guidance concerning baseline reports dated May 2014 (Ref: 2014/C 136/03) and the Environment Agency H5 guidance and such other subsequent guidance as may be agreed in writing with the Environment Agency. This report shall include but not limited to the condition of the leachate or liquid formation within the waste reception pit/bunker in order to identify RHS which may be associated with the incoming waste stream at the process reception pit/bunker.	
IC 6	The Operator shall submit a revised site condition report to the Environment Agency for approval and include but not be limited to the following: • Baseline report required by IC 5 above; • Baseline reference data for any 'other polluting substances'; and • Soil and groundwater monitoring plan to identify the relevant sampling frequencies for soils and groundwater based on the site activities and demonstrate proposed compliance with permit condition 3.1.3 in respect of periodic monitoring of RHS in soil and groundwater and proposed monitoring for 'any other polluting substances'. • Further information in respect to setting baseline reference data for any other polluting substances is detailed within the Environment Agency H5 guidance and such other subsequent guidance as may be agreed in writing with the Environment Agency.. • The operator shall undertake the work detailed in the report as approved, and from the date stipulated by the Environment Agency.	Complete
IC 7	The operator shall submit a Training Plan to the Environment Agency for written approval. The plan shall take into account the appropriate measures in the relevant sections of the Environment Agency Draft Technical Guidance, How to comply with your environmental permit: Additional guidance for Mechanical Biological Treatment Sector (August 2013) and such other subsequent guidance as may be agreed in writing with the Environment Agency. Once approved, the plan shall be implemented from the date stipulated by the Environment Agency and incorporated into the EMS. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.	Complete
IC 8	After completion of the commissioning, the operator shall ensure that a review of the odour control for digestate storage, sorting hall and reactor hall is carried out.	3 months from the date of issue of this variation

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	The review shall take into account the appropriate measures for odour control specified in section 7.3.7 of the Environment Agency Draft Technical Guidance, How to comply with your environmental permit: Additional guidance for Mechanical Biological Treatment Sector (August 2013) and such other subsequent guidance as may be agreed in writing with the Environment Agency. The review shall also consider all the required information as specified in the Environment Agency Horizontal Guidance H4 - Odour Management and such other subsequent guidance as may be agreed in writing with the Environment Agency. A written report of the review shall be submitted to the Environment Agency for approval detailing the review's findings and recommendations, and timescales for improvements. Any necessary measures or improvements including but not limited to a submission of revised Odour Management Plan shall be undertaken by the times stipulated by the Environment Agency.	notice, or other date agreed in writing with the Environment Agency
IC 9	The operator shall submit a revised odour management plan (OMP) to the Environment Agency detailing the monitoring of all the odour abatement systems in order to establish the saturation profile of the system. The revised plan will review the current monitoring within the OMP (especially Section 5.8) and provided appropriate monitoring to be able to ascertain when the abatement systems are becoming saturated. The revised OMP shall be submitted to the Environment Agency for approval. Any necessary measures or improvements shall be undertaken by the times stipulated by the Environment Agency. Also, the revised OMP or other part of the EMS (as agreed in writing with the Environment Agency) shall include appropriate management of the odour abatement plant to prevent fire from self-heating of activated carbon. Once approved, the plan shall be implemented from the date stipulated by the Environment Agency and incorporated into the EMS. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.	3 months from the date of issue of this variation notice, or other date agreed in writing with the Environment Agency
IC10	The operator shall submit operating procedures updated to include operation of the plant for the production of Solid Recovered Fuel (SRF) to the Environment Agency for approval. Once approved, the documents and procedures shall be incorporated into the EMS that forms the written management system referenced in condition 1.1.1 (a) of the permit.	3 months from the date of issue of this variation notice, or other date agreed in writing with the Environment Agency
IC11	The operator shall submit an updated Training Plan to the Environment Agency for written approval. The plan shall take into account operating procedures of the plant for production of Solid Recovered Fuel (SRF) and any guidance as may be agreed in writing with the Environment Agency. Once approved, the plan shall be implemented from the date stipulated by the Environment Agency and incorporated into the EMS. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.	3 months from the date of issue of this variation notice, or other date agreed in writing with the Environment Agency
IC12	The operator shall submit a revised Site Energy Efficiency Plan to the	3 months from

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	Environment Agency for written approval. The plan shall extend the plan submitted under Improvement Condition IC2 for monitoring of energy efficiency and consumption to include the SRF production plant. Once approved, the plan shall be implemented from the date stipulated by the Environment Agency and incorporated into the EMS. The documents and procedures set out in the EMS shall form the written management system referenced in condition 1.1.1 (a) of the permit.	the date of issue of this variation notice, or other date agreed in writing with the Environment Agency
IC13	The operator shall review the site EMS and update it for any changes to address points identified during plant commissioning. The operator shall submit a written copy of the updated Environmental Management System (EMS) to the Environment Agency and make available for inspection all documents and procedures which form part of the site EMS.	3 months from the date of issue of this variation notice, or other date agreed in writing with the Environment Agency
IC14	The operator shall review the Fire Prevention Plan and update it for the production of Solid Recovered Fuel and for any changes to address points identified during plant commissioning. The operator shall submit a written copy of the Fire Prevention Plan (FPP) to the Environment Agency.	3 months from the date of issue of this variation notice, or other date agreed in writing with the Environment Agency
IC 15	On completion of commissioning of the extraction and abatement plant, smoke tests shall be carried out to confirm that the building containment is adequate. The operator shall determine the set points of the flow and pressure alarms required to ensure adequate containment at the points at which the alarms are activated. The alarm set points and corrective actions shall be incorporated in the revised OMP as required under IC9.	1 month from the date of issue of this variation notice, or other date agreed in writing with the Environment Agency

Table S1.4A Pre-operational measures	
Reference	**Pre-operational measures**
POM 1	At least 8 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of commissioning of the installation, the operator shall ensure that a review of the design, method of construction and integrity of the proposed site secondary containment surrounding the anaerobic digestion tanks is carried out by a qualified civil or structural engineer. The review shall compare the constructed secondary containment against the standards set out in section 7.5 of the Environment Agency Draft Technical Guidance, How to comply with your environmental permit: Additional guidance for Mechanical Biological Treatment Sector (August 2013) and CIRIA C736 - Containment Systems for the Prevention of Pollution – secondary, tertiary and other measures for industrial and commercial premises or other relevant industry standard or such other subsequent guidance as may be agreed in writing with the Environment Agency. The review shall include: - the physical condition of the secondary containment;

Table S1.4A Pre-operational measures	
Reference	**Pre-operational measures**
	- 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 set out in CIRIA C736 or other relevant industry standard - timescales for any improvement necessary; 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 secondary containment meets the standards set out in the above technical guidance documents and implement the maintenance and inspection regime. No site operations shall commence or waste accepted at the facility unless the Environment Agency has given prior written permission under this condition.
POM 2	At least 2 weeks (or any other date as agreed with the Environment Agency) prior to commissioning of the installation, the operator shall submit a written copy of the 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 – Develop a management system: environmental permits and section 8.1 of the Environment Agency Draft Technical Guidance, How to comply with your environmental permit: Additional guidance for Mechanical Biological Treatment Sector (August 2013) or such other subsequent guidance as may be agreed in writing with the Environment Agency. The EMS shall include the techniques the operator relies upon to manage the operation, accidents (including flooding), issues identified in the Hazard and Operability Study (HAZOP) (including timescale for resolution), 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 the permit. No site operations shall commence or waste accepted at the installation unless the Environment Agency has given prior written permission under this condition.
POM 3	At least 8 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of commissioning of the installation, the operator shall provide a written commissioning plan (including timescales for completion) for approval by the Environment Agency. The commissioning plan shall include the expected emissions to the environment during the different stages of commissioning, the expected durations of commissioning activities and the measures to be taken to protect the environment and report to the Environment Agency in the event that actual emissions exceed expected emissions. Commissioning shall be carried out in accordance with the commissioning plan as approved by the Environment Agency. No site operations shall commence or waste accepted at the installation unless the Environment Agency has given prior written permission under this condition.
POM 4	At least 4 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of commissioning of the installation, the operator shall provide written evidence to the Environment Agency of the Technically Competent Manager (TCM) at the proposed installation. The report shall confirm that the person(s): • hold the relevant qualifications under the CIWM/WAMITAB scheme or other equivalent for the operation of the installation; and • confirm that a training plan is in place, and provide a copy to the Environment Agency. No site operations shall commence or waste accepted at the installation unless the Environment Agency has given prior written permission under this condition.
POM 5	At least 8 weeks (or any other date as agreed with the Environment Agency) prior to the commencement of commissioning of the waste bunker, the operator shall ensure that a review of the design, method of construction and integrity of the proposed site

Table S1.4A Pre-operational measures	
Reference	**Pre-operational measures**
	waste bunker is carried out by a qualified civil and structural engineer. The review shall compare the constructed bunker against the standards set out in relevant industry standard. The review shall include: - the physical condition of the bunker; - any work required to ensure compliance the relevant industry standard - timescales for any improvement necessary; 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 standards set out in the industry standard and implement the maintenance and inspection regime. No site operations shall commence or waste accepted at the facility unless the Environment Agency has given prior written permission under this condition.
POM 6	At least 4 weeks (or any other date as agreed with the Environment Agency) prior to waste being accepted to the site, the operator shall submit a revised Accident Management Plan, (including the findings and results from the Hazard and Operability Study (HAZOP) conducted for the site) to the Environment Agency for written approval. The plan shall take into account the appropriate measures for management of accidents specified in section 8.7 of the Environment Agency Draft Technical Guidance, How to comply with your environmental permit: Additional guidance for Mechanical Biological Treatment Sector (August 2013) or such other subsequent guidance as may be agreed in writing with the Environment Agency. No waste shall be accepted at the installation unless the Environment Agency has given prior written permission under this condition.
POM 7	At least 4 weeks (or any other date as agreed with the Environment Agency) prior to waste being accepted to the site, the operator shall submit a report with the findings and results from the Hazard and Operability Study (HAZOP) conducted for the site, to the Environment Agency. The reports shall take into account the appropriate measures for management of accidents specified in section 8.7 of the Environment Agency Draft Technical Guidance, How to comply with your environmental permit: Additional guidance for Mechanical Biological Treatment Sector (August 2013) or such other subsequent guidance as may be agreed in writing with the Environment Agency. No waste shall be accepted at the installation unless the Environment Agency has given prior written permission under this condition.

Table S1.4B Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
POM(B) 1	Any tank being commissioned or prior to acceptance of waste to the installation whichever is the soonest.	At least 8 weeks (or any other date as agreed with the Environment Agency) prior to any tank being commissioned or acceptance of waste to the installation whichever is the soonest, the operator shall ensure that a review of the design, method of construction and integrity of the proposed site secondary containment is carried out by a qualified civil or structural engineer. The review shall compare the constructed secondary containment against the standards set out in section 7.5 of the Environment Agency Draft Technical Guidance, How to comply with your environmental permit: Additional guidance for Mechanical Biological Treatment Sector (August 2013) and CIRIA C736 - Containment Systems for the Prevention of Pollution - secondary,

Table S1.4B Pre-operational measures for future development		
Reference	**Operation**	**Pre-operational measures**
		tertiary and other measures for industrial and commercial premises or other relevant industry standard or such other subsequent guidance as may be agreed in writing with the Environment Agency. The review shall include: - the physical condition of the 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 set out in CIRIA C736 or other relevant industry standard - timescales for any improvement necessary; 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 secondary containment meets the standards set out in the above technical guidance documents and implement the maintenance and inspection regime. No individual tank shall be used or waste shall be accepted 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**
Copper Oxide Impregnated Carbon Acid Impregnated Carbon	>90% w/w activated carbon >5% w/w copper oxide >90% w/w activated carbon >5% w/w citric acid
Sodium hydroxide (NaOH)	32% solution
Sodium hypochlorite (NaOCl)	15% solution
Diesel	Maximum 0.1% sulphur content

Table S2.2 Permitted waste types and quantities for mechanical biological treatment	
Maximum quantity	**Annual throughput shall not exceed 144,000 tonnes minus any tonnage of waste taken for the Waste Transfer Station (Activity A17) under Table S2.3.**
Exclusions	Wastes having any of the following characteristics shall not be accepted: - consisting solely or mainly of dusts (except sawdust), powders, or loose fibres - wastes containing treated wood, wood-preserving agents or other biocides, persistent organic pollutants, Japanese Knotweed - sludges (except gully and street cleaning wastes) - drummed wastes

Table S2.2 Permitted waste types and quantities for mechanical biological treatment	
Maximum quantity	**Annual throughput shall not exceed 144,000 tonnes minus any tonnage of waste taken for the Waste Transfer Station (Activity A17) under Table S2.3.**
Exclusions	Wastes having any of the following characteristics shall not be accepted: - consisting solely or mainly of dusts (except sawdust), powders, or loose fibres - wastes containing treated wood, wood-preserving agents or other biocides, persistent organic pollutants, Japanese Knotweed - sludges (except gully and street cleaning wastes) - drummed wastes
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 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
02 03	**wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02	wastes from preserving agents
02 03 03	wastes from solvent extraction
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 01	soil from cleaning and washing beet
02 04 03	sludges from on-site effluent treatment
02 05	**wastes from the dairy products industry(1)**
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 02	wastes from preserving agents
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 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
03	**Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard**
03 01	**wastes from wood processing and the production of panels and furniture**

Table S2.2 Permitted waste types and quantities for mechanical biological treatment	
Maximum quantity	**Annual throughput shall not exceed 144,000 tonnes minus any tonnage of waste taken for the Waste Transfer Station (Activity A17) under Table S2.3.**
Exclusions	Wastes having any of the following characteristics shall not be accepted: - consisting solely or mainly of dusts (except sawdust), powders, or loose fibres - wastes containing treated wood, wood-preserving agents or other biocides, persistent organic pollutants, Japanese Knotweed - sludges (except gully and street cleaning wastes) - drummed wastes
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
07	**Wastes from organic chemical processes**
07 02	**wastes from the MFSU of plastics, synthetic rubber and man-made fibres**
07 02 13	waste plastic
15	**Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified**
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 01	paper and cardboard packaging
15 01 03	wooden packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 09	textile packaging
15 02	**absorbents, filter materials, wiping cloths and protective clothing**
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 02	**wood, glass and plastic**
17 02 01	wood
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 05	**wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost

Table S2.2 Permitted waste types and quantities for mechanical biological treatment	
Maximum quantity	**Annual throughput shall not exceed 144,000 tonnes minus any tonnage of waste taken for the Waste Transfer Station (Activity A17) under Table S2.3.**
Exclusions	Wastes having any of the following characteristics shall not be accepted: - consisting solely or mainly of dusts (except sawdust), powders, or loose fibres - wastes containing treated wood, wood-preserving agents or other biocides, persistent organic pollutants, Japanese Knotweed - sludges (except gully and street cleaning wastes) - drummed wastes
19 06	**wastes from anaerobic treatment of waste**
19 06 03	liquor from anaerobic treatment of municipal waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 05	liquor from anaerobic treatment of animal and vegetable waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 01	paper and cardboard
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 01	**separately collected fractions (except 15 01)**
20 01 01	paper and cardboard
20 01 02	glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	clothes
20 01 11	textiles
20 01 25	edible oil and fat
20 01 30	detergents other than those mentioned in 20 01 29
20 01 32	medicines other than those mentioned in 20 01 31
20 01 38	wood other than that mentioned in 20 01 37
20 01 41	wastes from chimney sweeping
20 02	**garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	**other municipal wastes**
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues

Table S2.2 Permitted waste types and quantities for mechanical biological treatment	
Maximum quantity	**Annual throughput shall not exceed 144,000 tonnes minus any tonnage of waste taken for the Waste Transfer Station (Activity A17) under Table S2.3.**
Exclusions	Wastes having any of the following characteristics shall not be accepted: - consisting solely or mainly of dusts (except sawdust), powders, or loose fibres - wastes containing treated wood, wood-preserving agents or other biocides, persistent organic pollutants, Japanese Knotweed - sludges (except gully and street cleaning wastes) - drummed wastes
20 03 07	bulky waste
Note (1)	No more than 10 tonnes total per day on average of any waste with EWC codes 02-05-01 or 02-05-02 will be treated.

Table S2.3 Permitted waste types and quantities for waste transfer station	
Maximum quantity	**Annual throughput shall not exceed 30,000 tonnes**
Exclusions	Wastes having any of the following characteristics shall not be accepted: - consisting solely or mainly of dusts (except sawdust), powders, or loose fibres - wastes containing treated wood, wood-preserving agents or other biocides, persistent organic pollutants, Japanese Knotweed - sludges (except gully and street cleaning wastes) - drummed wastes
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 10	waste metal
02 04	**wastes from sugar processing**
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 04 03	sludges from on-site effluent treatment
02 04 99	wastes not otherwise specified
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 05 99	wastes not otherwise specified
07	**Wastes from organic chemical processes**
07 02 13	waste plastic
15	**Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified**
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 02	plastic packaging
15 01 04	metallic packaging

Table S2.3 Permitted waste types and quantities for waste transfer station	
Maximum quantity	**Annual throughput shall not exceed 30,000 tonnes**
Exclusions	Wastes having any of the following characteristics shall not be accepted: - consisting solely or mainly of dusts (except sawdust), powders, or loose fibres - wastes containing treated wood, wood-preserving agents or other biocides, persistent organic pollutants, Japanese Knotweed - sludges (except gully and street cleaning wastes) - drummed wastes
15 01 07	glass packaging
17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 02	**wood, glass and plastic**
17 02 02	glass
17 02 03	plastic
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 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 09	minerals (for example sand, stones)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 01	**separately collected fractions (except 15 01)**
20 01 02	glass
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 39	plastics
20 01 40	metals
20 02	**garden and park wastes (including cemetery waste)**
20 02 02	soil and stones

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**
A1 to A4 on site plan in Schedule 7	CHP engine 1, 2, 3 and 4 stacks [Note 1]	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
A5 on site plan in Schedule 7	Emergency flare stack [Note 2]	Oxides of Nitrogen (NO and NO_2 expressed as NO_2)	150 mg/m^3	Hourly average	[Note 3]	BS EN 14792
		Carbon monoxide	50 mg/m^3			BS EN 15058
		Total VOCs	10 mg/m^3			BS EN 12619:2013
A6 on site plan in schedule 7	Main Building Carbon Filter vent	No parameter set [Note 4]	No limit set [Note 4]	--	--	--
A7 on site plan in schedule 7	Digestate Treatment Building Carbon Filter vent	No parameter set [Note 4]	No limit set [Note 4]	--	--	--
A8 on site plan in schedule 7	Brine Tank via carbon filter	No parameter set [Note 4]	No limit set [Note 4]	--	--	--

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**
A9 on site plan in schedule 4	Sorting Hall Carbon filter vent	No parameter set [Note 4]	No limit set [Note 4]	--	--	--
A10 on site plan in schedule 4	Reactor Hall Scrubber unit vent	No parameter set [Note 4]	No limit set [Note 4]	--	--	--
Pressure release vents	Digesters/Digestate storage tanks	No parameter set	No limit set	--	--	--
	Brine Tank	No parameter set	No limit set	--	--	--
	Liquid Balancing Tank	No parameter set	No limit set	--	--	--
Vents from tanks	Compressed Natural Gas mobile tank	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: 5 per cent (dry gas). The measurement uncertainty specified in LFTGN08 v2 2010 shall apply.

Note 2 - 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). The measurement uncertainty specified in LFTGN05 v2 2010 shall apply.

Note 3 - Monitoring to be undertaken 12 months after commissioning of the emergency flare and monitoring to be undertaken in the event the emergency flare has been operational for more than 10 per cent of a year (876 hours). Record of operating hours to be submitted annually to the Environment Agency.

Note 4 – On completion of Improvement Conditions 8 and 9, the Environment Agency shall consider whether or not additional parameters and frequencies for monitoring emission points A6, A7 and A8 are appropriate for this Installation.

Table S3.2 Point source emissions to water (other than sewer) and land – emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. unit)**	**Reference Period**	**Monitoring frequency**	**Monitoring standard or method**
W1 on site plan in schedule 7 emission to Wade Brook	Uncontaminated site surface water from roofs and non-operational areas	Visible oil and grease	No limit set	--	Weekly	Visual assessment – no visible oil or grease
		Suspended Solids	No limit set	--	To be agreed in writing with the Environment Agency.	To be agreed in writing with the Environment Agency.
		pH				
		Ammoniacal Nitrogen				
		Chemical Oxygen Demand				
		Electrical Conductivity				
	Uncontaminated site surface water from the secondary bunded area	Suspended Solids	50 mg/l	--	Prior to discharge	To be agreed in writing with the Environment Agency.
		pH	6 to 9			
		Ammoniacal Nitrogen	No limit			
		Chemical Oxygen Demand	No limit			
		Electrical Conductivity	No limit			

Table S3.3 Groundwater – monitoring requirements				
Monitoring point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**

Table S3.3 Groundwater – monitoring requirements				
Monitoring point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Boreholes identified in plan submitted in response to IC6.	As per the approved plan submitted in response to IC6.	As per the approved plan submitted in response to IC6.	As per the approved plan submitted in response to IC6.	As per the approved plan submitted in response to IC6.

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
Bioreactors	Feed rate	Continuous	None specified	--
	Enzyme dosing			
	pH			
	Temperature (feed water and reactor)			
Bio liquid from bioreactor	Flow into inlet tank	Daily	None specified	--
	Temperature			
	pH			
	Alkalinity	Daily		For first 6 months, frequency after 6 months to be agreed with Environment Agency.

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
	Total Solids	Daily	None Specified	--
	Volatile Fatty Acids	Bi-weekly		
	Ammonia			
	C:N ratio			
AD tanks	High level	Continuous	None Specified	--
	Temperature			
	Gas pressure			
	pH			
	Hydraulic loading rate			
	Ammonia	To be agreed in writing with the Environment Agency.	None Specified	--
	Organic Loading Rate including Total Solids and Volatile Solids	To be agreed in writing with the Environment Agency.	None Specified	--
Biogas from Digesters	Flow	Continuous	In accordance with EU weights and measures Regulations	--
	Gas pressure		--	--
	Biogas volume	Continuous	--	--
	Methane	Continuous	None specified	Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations.

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
	Carbon Dioxide	Continuous	None specified	Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations.
	Oxygen	Continuous	None specified	Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations.
	Hydrogen sulphide	Daily	--	--
Digestate	Methane	Monthly	--	For first 6 months, frequency after 6 months to be agreed with Environment Agency.
	Total solids Volatile solids	Bi-weekly	--	To be undertaken if digestate is to be stored for more than 4 days.
	Residual Biogas Potential	At least weekly	--	
Condensate from biogas	pH	Periodic (To be agreed in writing with the Environment Agency)	--	For first 6 months, frequency after 6 months to be agreed with Environment Agency
Condensate from evaporator	Chlorine reduction	Weekly	--	--
	Sodium reduction			
	Ammonia reduction			
CHP engines	Electricity produced	Continuous	--	--
	Electricity exported			

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
	Waste heat to process	Calculated	--	Waste heat utilised by the process will be calculated monthly for the first 6 months, frequency after 6 months will be agreed with Environment Agency
Waste reception building; Digesters; storage tanks; Digestate storage building	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary.
Digesters and storage tanks	Integrity checks	Weekly	Visual assessment	--
Carbon filtration system filter	Key process parameters to include, temperature, differential pressure, air flow, moisture and dust filters (where installed).	In accordance with manufacturer's recommendations.	None specified	Odour abatement (Carbon filter) shall be regularly checked and maintained to ensure appropriate temperature and moisture content. Carbon filters to be replaced when saturated in accordance with manufacturer's recommendations. Differential pressure determined by upstream and downstream measurement of the activated carbon unit or other method agreed in writing with the Environment Agency.
Reactor vessel scrubber	Key process parameters to include Reduction-Oxygen Potential (ROP), liquor level, water make up, chemical dosing rate and air flow.	In accordance with manufacturer's recommendations.	None specified	--
All parameters identified in Odour Management Plan to check odour	All parameters identified in Odour Management Plan to check odour abatement,	All parameters identified in Odour Management Plan to check odour abatement,	--	--

Table S3.4 Process monitoring requirements				
Emission point reference or source or description of point of measurement	**Parameter**	**Monitoring frequency**	**Monitoring standard or method**	**Other specifications**
abatement, Section 5.8, dated 29/05/19	Section 5.8, dated 29/05/19	Section 5.8, dated 29/05/19		
Inspection of the waste bunker	Leachate build up	Weekly	Visual assessment	Leachate shall be removed in line with Bunker Management plan dated 07/09/16
	Depth of leachate		To be agreed in writing with the Environment Agency.	
	Leakage and Surface Damage	At least weekly	Visual assessment	--
	Detailed survey	Annually	--	
Inspection of bund sump	Surface Damage	At least weekly	Visual assessment	--
	Detailed survey	Annually	--	--
Inspection of the digestate storage pit	Leakage and Surface Damage	At least weekly or whenever emptied	Visual assessment	--
	Detailed survey	Annually	--	--
Emergency Flare	Hours of Operation	Annually	--	[Note 1]
Digesters/Digestate storage tanks pressure release vent	Hours of Operation	Annually	--	--
Brine Tank pressure release vent				
Liquid Balancing Tank pressure release vent				
Compressed Natural Gas mobile tank pressure release vent				
Note1: Monitoring to be undertaken 12 months after commissioning of the emergency flare and 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.				

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 Parameters as required by condition 3.7.1.	A1, A2, A3, A4, A5, A6, A7 and A8.	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.7.1	W1	Every 6 months	1 January, 1 July

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	%
Underground structures inspection	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	30/09/16
Water	Form water 1 or other form as agreed in writing by the Environment Agency	30/09/16

Table S4.4 Reporting forms		
Media/parameter	**Reporting format**	**Date of form**
Water usage	Form water usage 1 or other form as agreed in writing by the Environment Agency	30/09/16
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	30/09/16
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	30/09/16
Waste returns	Waste Return Form or Generic Operator Returns system (GOR) or other reporting format to be agreed in writing with 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	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
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 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.

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

“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 2010 No.675 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“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

“Industry Standard Protocol” means “A standardised protocol for the monitoring of bioaerosols at open composting facilities” published by the Association for Organics Recycling and developed in conjunction with the Environment Agency.

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

“pests” means Birds, Vermin and Insects.

“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.

“RDF” means Refuse Derived Fuel

“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.

“SRF” means Solid Recovered Fuel.

“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 veneer).

“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.

“year” means calendar year ending 31 December.

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

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

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid fuels, 3% or 5% for gaseous fuels, 6% dry for solid fuels; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content.

Schedule 7 – Site plan



END OF PERMIT