

Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Global Renewables Lancashire Operations Limited

Thornton Waste Treatment Plant
Fleetwood Road North
Thornton
Lancashire
FY7 8RY

Variation application number

EPR/EP3396SX/V007

Permit number

EPR/EP3396SX

Thornton Waste Treatment Plant

Permit number EPR/EP3396SX

Introductory note

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

Under the Environmental Permitting (England & Wales) Regulations 2010 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. All the conditions of the permit have been varied and are subject to the right of appeal.

The Industrial Emissions Directive (IED) was transposed in England and Wales by the Environmental Permitting (England and Wales)(Amendment) Regulations 2013 on 27 February 2013. This variation implements the changes brought about by the IED for “existing facilities operating newly prescribed activities” and completes the transition of this facility from a waste operation to an IED Installation. The activities have been reclassified as Part A installation activities and there has been an update to permit conditions.

This permit allows the operator to operate a mechanical and biological waste treatment facility that includes the transfer of waste at the specified location. The site is also permitted to carry out a number of recovery activities.

The facility is located on the northern side of Thornton. The National Grid Reference for the site is SD 33500 44451.

The site accepts source-segregated recyclable materials from householders for bulking and transfer off site. Mixed recyclable materials from households are accepted and stored before being transferred off site. Mixed municipal waste collected by Local Authorities is received and subjected to mechanical treatment to remove any recyclable material.

The residual waste from the mechanical treatment process then goes on to a percolation stage where water is percolated through the wastes to remove the suitable organics. The water is anaerobically digested to produce a biogas which is then be used to generate electricity. Solid wastes that leave the percolation stage undergo biological treatment by a composting process within a building. Any process wastewater is tankered off site. All clean roof and site surface water runoff is collected in a storage tank and re-used on site or discharged to surface water via an interceptor.

Green and kitchen waste is also accepted at the site and composted in a separate building to the household waste.

The composting processes are kept under negative pressure. Air from within the building is passed through a biofilter before being discharged to air. Waste inputs are limited to non-hazardous and inert wastes and do not include hazardous waste such as asbestos. Non-organic wastes of similar types will be transferred into larger containers and sent to other waste facilities for further treatment, recovery or disposal. Wastes can be bulked up for disposal or recovered elsewhere and can also be treated by sorting, separation, screening, crushing and compaction.

This permit does not allow the burning of any solid waste, either in the open, inside buildings or in any form of incinerator.

The schedules specify the changes made to the permit.

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

Status log of the permit		
Description	Date	Comments
Permit determined EAWML 54478	31/05/2007	Original permit issued for a mechanical biological treatment plant with AD plant and gas turbine facilities
Transfer of permit EPR/EP3396SX/A001	25/09/2009	Transfer of permit to Global Renewables Lancashire Operations Limited
Variation determined EPR/EP3396SX/V002	26/03/2010	
Variation determined EPR/EP3396SX/V003	20/08/2010	Agency-led variation to correct errors in permit
Application EPR/EP3396SX/V004 (variation)	Duly made 29/06/2012	Application to vary the permit to accept liquid wastes, add activity D9 to all activities and pre-operational condition
Variation determined EPR/EP3396SX	24/09/2012	Varied permit issued
Agency variation determined EPR/EP3396SX/V005	28/05/2013	Agency-led variation to implement the changes introduced by IED
Application EPR/EP3396SX/V006 (variation and consolidation)	Duly made 02/08/2016	Application to vary the permit
Variation determined EPR/EP3396SX Billing Ref: ZP3239DH	22/09/2016	Varied permit issued
Application EPR/EP3396SX/V007 (variation and consolidation)	Duly made 22/09/2014	Application to vary and update the permit to modern conditions
Further Request for Information sent 23/11/2016	Received 16/12/2016	Site Emission Plan ref: Drawing Number 52059-B000-00-SK-001
Variation determined EPR/EP3396SX (Billing ref: BP3532WY)	11/04/2017	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 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies and consolidates

Permit number

EPR/EP3396SX

Issued to

Global Renewables Lancashire Operations Limited (“the operator”)

whose registered office is

County Hall

PO Box 78

Fishergate

Preston

PR1 8XJ

company registration number 05881147

to operate a regulated facility at

Thornton Waste Treatment Plant

Fleetwood Road North

Thornton

Lancashire

FY7 8RY

to the extent set out in the schedules.

The notice shall take effect from 11/04/2017

Name	Date
M Bischer	11/04/2017

Authorised on behalf of the Environment Agency

Schedule 1

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

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/EP3396SX

This is the consolidated permit referred to in the variation and consolidation notice for application EPR/EP3396SX/V007 authorising,

Global Renewables Lancashire Operations Limited (“the operator”),

whose registered office is

**County Hall
PO Box 78
Fishergate
Preston
PR1 8XJ**

company registration number 05881147

to operate an installation at

**Thornton Waste Treatment Plant
Fleetwood Road North
Thornton
Lancashire
FY7 8RY**

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

Name	Date
M Bischer	11/04/2017

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 AR4, 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 AR4, 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”).

2.2 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 For the following activities referenced in schedule 1, table S1.1 AR1 to AR4, 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.

3 Emissions and monitoring

3.1 Emissions to water, air or land

- 3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.
- 3.1.2 The limits given in schedule 3 shall not be exceeded.

3.2 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 Bioaerosols

- 3.5.1 The operator shall take all appropriate measures, to prevent or where that is not practicable to minimise the release of bioaerosols. Emissions of bioaerosols from the operational activities shall not exceed the emission threshold limits specified in table S3.4.
- 3.5.2 The operator shall where the emission threshold limits are exceeded:
 - (a) notify the Environment Agency and investigate and take remedial action;
 - (b) submit to the Environment Agency for approval within the period specified, a bioaerosols management plan which identifies and minimises the risks of pollution from bioaerosols; and
 - (c) implement the bioaerosols management plan from the date of approval and revise the plan periodically, unless otherwise agreed in writing by the Environment Agency.

3.6 Monitoring

- 3.6.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
 - (a) point source emissions specified in tables S3.1 and S3.2;
 - (b) process monitoring specified in table S3.3;
 - (c) bioaerosols monitoring specified in table S3.4.
- 3.6.2 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.
- 3.6.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.6.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.6.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

3.7 Pests

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

3.8 Fire prevention

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

4 Information

4.1 Records

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

4.2 Reporting

- 4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.
- 4.2.2 For the following activities referenced in schedule 1, table S1.1 AR1 to AR4 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 AR4, 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 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.

4.3.4 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:

- (c) any change in the operator's name or address; and
- (d) any steps taken with a view to the dissolution of the operator.

In any other case:

- (e) the death of any of the named operators (where the operator consists of more than one named individual);
- (f) any change in the operator's name(s) or address(es); and
- (g) 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.

4.3.5 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.

4.3.6 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 AR4, 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 AR13 to AR14, 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.	Biological treatment of solid residual waste from the Mechanical Biological treatment process – Organic Growth Media (OGM) composting process. R3: Recycling/reclamation of organic substances which are not used as solvents.	From receipt of waste to despatch for other on-site operations (aerobic composting, anaerobic digestion and/or bio-drying) and recovery of by-products. The air extraction system that maintains the negative pressure shall be fitted with scrubbers and biofilters. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR2	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.	Biological treatment of solid residual waste from the separately collected householder green waste – green waste composting process. R3: Recycling/reclamation of organic substances which are not used as solvents.	The air extraction system that maintains the negative pressure shall be fitted with scrubbers and biofilters. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR3	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.	Biological treatment of solid residual waste from the Mechanical Biological treatment process – percolation and anaerobic Digestion – Digester 1 process. R3: Recycling/reclamation of organic substances which are not used as solvents.	The air extraction system that maintains the negative pressure shall be fitted with scrubbers and a biofilter. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR4	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.	Biological treatment of solid residual waste from the Mechanical Biological treatment process – percolation and anaerobic Digestion – Digester 2 process.	The air extraction system that maintains the negative pressure shall be fitted with scrubbers and a biofilter. Waste types suitable for acceptance are limited to

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
		R3: Recycling/reclamation of organic substances which are not used as solvents.	those specified in Table S2.2.
Activity reference	Directly Associated Activity		
AR5	Storage of waste pending recovery or disposal.	R13: Storage of waste pending the operations numbered R1 and R3 (excluding temporary storage, pending collection, on the site where it is produced)	<p>From the receipt of waste to despatch for treatment or despatch off site for recovery and/or disposal.</p> <p>Storage of Organic Growth Media in OGM Storage Hall as shown on Drawing number 4054-B000-09-121-038.</p> <p>Waste stored in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with sealed drainage system.</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2.</p>
AR6	Physical treatment for the purposes of recycling.	R3: Recycling/reclamation of organic substances which are not used as solvents	<p>From the receipt of waste to despatch for biological treatment or despatch off site for recovery.</p> <p>Treatment of waste in enclosed building and on an impermeable surface with sealed drainage system including screening, sorting, crushing, baling, shredding and pelletising.</p> <p>Post-treatment of compost and/or digestate in an enclosed building and on an impermeable surface with sealed drainage system, including screening to remove contraries, centrifuge or pressing and addition of thickening agents and/or drying.</p>

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
			Gas cleaning by biological or chemical scrubbing. Waste types suitable for acceptance are limited to those specified in Table S2.2.
AR7	Steam and electrical power supply	R1:Use principally as a fuel to generate energy	From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion gases. Combustion of biogas in two combined heat and power (CHP) engines with an aggregated thermal input of 1.886 MWth.
AR8	Emergency flare operation	D10: Incineration on land	From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases. Use of an auxiliary flare required only during periods of breakdown or maintenance of the CHP engine.
AR10	Raw material storage	Storage of raw materials including lubrication oil, antifreeze, ferric chloride, activated carbon, diesel.	From the receipt of raw materials to despatch for use within the facility.
AR11	Gas storage	Storage of biogas produced from on-site anaerobic digestion of permitted waste in roof space of digester.	From the receipt of biogas to despatch for use within the facility.
AR12	Surface water collection and storage	Collection and storage of uncontaminated roof and site surface water in underground storage tank	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.
Activity reference	Description of activities for waste operations		Limits of activities
AR13	Materials Recycling Facility: Transfer and storage of recyclable materials R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding		All bulking, transfer or storage of non-hazardous waste shall be carried out within a building that is kept under negative pressure and provided with an impermeable surface and sealed drainage.

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
	<p>temporary storage, pending collection, on the site where it is produced)</p> <p>D9: Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by any of the operations numbered D01 to D12.</p> <p>D15: Temporary storage of waste pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)</p>		<p>The air extraction system that maintains the negative pressure shall be fitted with a biofilter.</p> <p>No waste shall be stored on site for longer than 3 days, prior to treatment, unless otherwise agreed in writing with the Environment Agency.</p> <p>Activity D9 will only apply to liquids for on-site treatment, storage or recovery processes.</p> <p>Waste types as specified in Table S2.3</p>
AR14	<p>Materials Recycling Facility: Treatment of recyclable materials:</p> <p>R3: Recycling/reclamation of organic substances which are not used as solvents</p> <p>R4: Recycling/reclamation of metals and metal compounds</p> <p>R5: Recycling/reclamation of other inorganic materials</p> <p>D9: Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by any of the operations numbered D01 to D12</p>		<p>Physical treatment consisting only of manual sorting, separation, screening, crushing or compaction of non-hazardous waste into different components for recovery.</p> <p>Treatment of non-hazardous waste shall be treated within a building that is maintained under negative pressure and provided with an impermeable surface and sealed drainage.</p> <p>The air extraction system that maintains negative pressure shall be fitted with a biofilter.</p> <p>Activity D9 will only apply to liquids for on-site treatment, storage or recovery processes.</p> <p>Waste types as specified in Table S2.3</p>

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application EAWML 54478	Application form Environmental Statement Working Plan	23/12/2009
BAT Assessment	All sections	22/01/2010
Application for variation EPR/EP3396SX/V006	Application form EPC: Part C3 varying a bespoke installation permit, Question 3	02/08/2016
	Application Supporting Information – Thornton Working Plan	02/08/2016

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	<p>The Operator shall monitor emissions of Oxides of Nitrogen (NO_x); Carbon Monoxide (CO); Sulphur dioxide (SO₂); Total volatile organic compounds including methane (VOCs) and Non methane volatile organic compounds (NMVOCs) from emission point A1 and A2 following commissioning.</p> <p>The Operator shall use the above monitoring results to carry out an environmental impact assessment that evaluates the potential impact of monitored parameters. The initial assessment shall be carried out using the Agency's 'H1 Environmental Assessment and Appraisal of BAT' tool (or other equivalent assessment tool agreed with the Agency).</p> <p>An electronic copy of the H1 assessment (or other equivalent assessment tool) shall be submitted to the Agency.</p> <p>Detailed air dispersion modelling shall be undertaken where this is required by the results of the initial H1 assessment.</p> <p>The results of the modelling shall be submitted to the Agency in a written report.</p> <p>Where any potential pollutant is identified as being released in significant quantities and / or above the benchmark values, a report shall be submitted to the Agency that proposes appropriate emission limit values and further on-going monitoring, having due regard to the fate of the substance. The report shall also contain a review of appropriate measures to assess whether further abatement or other improvements are necessary in order to reduce the concentration / quantity of that emission.</p> <p>Where further on-going monitoring, abatement or other improvements are proposed the report shall include an implementation timetable.</p>	Completed
IC2	<p>The Operator shall undertake a noise assessment in accordance with the procedures given in BS4142: 1997 (Rating industrial noise affecting mixed residential and industrial areas) and BS7445: 2003 (Description and measurement of environmental noise) or other methodology as agreed with the Agency. Any noise source(s) identified as exhibiting tonal contributions shall be quantified by means of frequency analysis.</p> <p>Noise measurements shall be undertaken by an experienced and suitably qualified person.</p> <p>On completion of the assessment, a copy of the survey shall be submitted to the Agency in the form of a report, with an interpretation of the results and conclusions and recommendations drawn.</p>	Completed

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Lubricating oil	None
Ethylene Glycol (anti-freeze)	None
Sulphuric Acid	None
Defoamer	None
Ferric Chloride	None
Flocculent Powder	None
Proprietary Reagent	None
Sodium Hypochlorite	None
Acetic Acid	None
Sodium Hydroxide	None
Citric Acid	None
Nitric Acid	None

Table S2.2 Permitted waste types and quantities for activities AR1 – AR6 biological treatment of solid residual waste

Maximum quantity	Annual throughput shall not exceed 324,000 tonnes
Exclusions	<p>Wastes having any of the following characteristics shall not be accepted:</p> <ul style="list-style-type: none"> - 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 - drummed wastes - hazardous wastes - Animal By-Products Regulations contaminated materials – unless it has been approved by the competent Authority - waste types containing 99 codes shall only be accepted following written approval from the Environment Agency
Waste code	Description
02	
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 01	sludges from washing and cleaning
02 01 02	animal-tissue waste
02 01 03	plant-tissue waste
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 01	sludges from washing and cleaning
02 02 02	animal-tissue waste
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment
02 02 99	wastes not otherwise specified
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
02 03 99	wastes not otherwise specified
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 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
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing

Table S2.2 Permitted waste types and quantities for activities AR1 – AR6 biological treatment of solid residual waste	
Maximum quantity	Annual throughput shall not exceed 324,000 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> - 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 - drummed wastes - hazardous wastes - Animal By-Products Regulations contaminated materials – unless it has been approved by the competent Authority - waste types containing 99 codes shall only be accepted following written approval from the Environment Agency
Waste code	Description
02 06 03	sludges from on-site effluent treatment
02 06 99	wastes not otherwise specified
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
02 07 99	wastes not otherwise specified
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 02	plastic packaging
15 01 04	metallic packaging
15 01 07	glass packaging
16	Wastes not otherwise specified in the list
16 10	aqueous liquid wastes destined for off-site treatment
16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 05	wastes from anaerobic treatment of solid wastes
19 05 01	Non-composted fraction of municipal and similar waste
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 activities AR1 – AR6 biological treatment of solid residual waste

Maximum quantity	Annual throughput shall not exceed 324,000 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> - 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 - drummed wastes - hazardous wastes - Animal By-Products Regulations contaminated materials – unless it has been approved by the competent Authority - waste types containing 99 codes shall only be accepted following written approval from the Environment Agency
Waste code	Description
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 (e.g. sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	waste from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
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 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
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 waste
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 activities AR1 – AR6 biological treatment of solid residual waste	
Maximum quantity	Annual throughput shall not exceed 324,000 tonnes
Exclusions	<p>Wastes having any of the following characteristics shall not be accepted:</p> <ul style="list-style-type: none"> - 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 - drummed wastes - hazardous wastes - Animal By-Products Regulations contaminated materials – unless it has been approved by the competent Authority - waste types containing 99 codes shall only be accepted following written approval from the Environment Agency
Waste code	Description
20 03 07	Bulky waste

Table S2.3 Permitted waste types and quantities for activities AR13 – AR14 materials recycling facility	
Maximum quantity	Annual throughput shall not exceed 324,000 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> - 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
Waste code	Description
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 02	plastic packaging
15 01 04	metallic packaging
15 01 07	glass packaging
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 anaerobic treatment of solid wastes
19 05 01	Non-composted fraction of municipal and similar waste
19 05 02	Non-composted fraction of animal and vegetable waste
19 05 03	Off specification compost
19 12	wastes from the mechanical treatment of waste (e.g. sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	waste from soil and groundwater remediation
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
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 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 40	metals
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 02 02	soil and stones

Table S2.3 Permitted waste types and quantities for activities AR13 – AR14 materials recycling facility	
Maximum quantity	Annual throughput shall not exceed 324,000 tonnes
Exclusions	Wastes having any of the following characteristics shall not be accepted: <ul style="list-style-type: none"> - 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
Waste code	Description
20 02 03	Other non-biodegradable waste
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 07	Bulky waste

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 [Point 406-1 as shown on drawing number 52059-B000-00-SK-001]	OGM Biofilter 1 – Stack 1	Total bacteria	5,000 cfu/m ³	8 hour average	Every 4 weeks unless otherwise agreed in writing with the Environment Agency	In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities
		Total fungi	5,000 cfu/m ³	1 hour average		
A2 [Point 406-1 as shown on drawing number 52059-B000-00-SK-001]	OGM Biofilter 1 – Stack 2	Total bacteria	5,000 cfu/m ³	8 hour average	Every 4 weeks unless otherwise agreed in writing with the Environment Agency	In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities
		Total fungi	5,000 cfu/m ³	1 hour average		
A3 [Point 406-1 as shown on drawing number 52059-B000-00-SK-001]	GW Biofilter 1 – Stack 3	Total bacteria	5,000 cfu/m ³	8 hour average	Every 4 weeks unless otherwise agreed in writing with the Environment Agency	In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities
		Total fungi	5,000 cfu/m ³	1 hour average		
A4 [Point 406-1 as shown on drawing number 52059-B000-00-SK-001]	GW Biofilter 2 – Stack 4	Total bacteria	5,000 cfu/m ³	8 hour average	Every 4 weeks unless otherwise agreed in writing with the Environment Agency	In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities
		Total fungi	5,000 cfu/m ³	1 hour average		
A5 [Point 406-1 as shown on drawing number 52059-B000-00-SK-001]	OGM Biofilter 2 – Stack 5	Total bacteria	5,000 cfu/m ³	8 hour average	Every 4 weeks unless otherwise agreed in writing with the Environment Agency	In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities
		Total fungi	5,000 cfu/m ³	1 hour average		
A6 [Point 340-2 power generation shown on drawing no.]	CHP engine 1 [note 1]	Oxides of Nitrogen (NO and NO ₂)	500 mg/m ³	Hourly average	Annual	BS EN 14792

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
52059-B000-00-SK-001]		expressed as NO ₂)				
		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
A7 [Point 340-2 power generation shown on drawing no. 52059-B000-00-SK-001]	CHP engine 2 [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
A8 [Point 340-2 power generation shown on drawing no. 52059-B000-00-SK-001]	Emergency flare [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
Pressure relief valves [Point 320-1 Digestion shown on drawing no. 52059-B000-00-SK-001]	Digester 1	No parameter set	No limit set	--	Record of operating hours	--
Pressure relief valves [Point 320-1 Digestion shown on drawing no. 52059-B000-00-SK-001]	Digester 2	No parameter set	No limit set	--	Record of operating hours	--
Biogas storage tank membrane pressure relief valve [Point 340-1 Gas storage and treatment	Biogas upgrading plant	No parameter set	No limit set	--	--	--

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
shown on drawing no. 52059-B000-00-SK-001]						
<p>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.</p> <p>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.</p> <p>Note 3 – 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.</p>						

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 emission to unnamed brook to the south west of site [marked Pump House on emissions plan drawing number 52059-B000-00—K-001]	Uncontaminated site surface water from roofs and non-operational areas via interceptor	No parameter set	No limit set	--	Weekly	Visual assessment – no visible oil or grease

Table S3.3 Process monitoring requirements				
Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Biogas from Digesters	Flow	Continuous	In accordance with EU weights and measures Regulations	--
Biogas from Digesters	Methane	Continuous	None specified	Gas monitors to be calibrated every 6 months or in accordance with the manufacturer's recommendations
	Hydrogen sulphide	Continuous	None specified	--
Waste reception building; Digesters and storage tanks	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary
Digesters and storage tanks	Integrity checks	Weekly	Visual assessment	--
Biofilters	Temperature	As required	Temperature probe	Biofilter shall be regularly checked and maintained to ensure appropriate temperature and moisture content.
	Moisture	As required	None specified	
	Thatching/compaction	As required	None specified	
Internal for each composting batch during sanitisation stage	Temperature	At least daily	Temperature probe	Monitoring equipment shall be available on site and used as required to maintain aerobic conditions and ensure compliance with this permit.
	Moisture	None specified	--	
Internal for each composting batch during stabilisation stage	Temperature	At least weekly	Temperature probe	Equipment shall be calibrated on a 4 monthly basis or as agreed in writing by the Environment Agency.
	Moisture	None specified	--	

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

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 3.6.1.	A6, A7, A8	Every 12 months	1 January
Emissions to water Parameters as required by condition 3.6.1	W1	Every 6 months	1 January, 1 July
Bioaerosols monitoring Parameters as required by condition 3.6.1	As specified in schedule 3, table S3.4	Every 3 months	--

Table S4.2: Annual production/treatment	
Parameter	Units
Electricity generated	MWh
Biomethane generated	tonnes or m ³
Recovered compost	tonnes
Whole digestate	tonnes
Liquid digestate	tonnes
Solid digestate	tonnes

Table S4.3 Performance parameters		
Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh
Raw material usage	Annually	tonnes
Emergency flare operation	Annually	hours
CHP engine usage	Annually	hours
CHP engine efficiency	Annually	%

Table S4.4 Reporting forms		
Media/parameter	Reporting format	Date of form
Air	Form Air1 or other form as agreed in writing by the Environment Agency	11/04/2017
Water and Land	Form Water1 or other form as agreed in writing by the Environment Agency	11/04/2017
Bioaerosols	Form Bioaerosol1 or other form as agreed in writing by the Environment Agency	11/04/2017
Water usage	Form WaterUsage1 or other form as agreed in writing by the Environment Agency	11/04/2017
Energy usage	Form Energy1 or other form as agreed in writing by the Environment Agency	11/04/2017
Other performance indicators	Form Performance1 or other form as agreed in writing by the Environment Agency	11/04/2017
Waste returns	E-waste returns	--

Schedule 5 – Notification

These pages outline the information that the operator must provide.

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

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

Part A

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

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

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

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

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

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

Part B – to be submitted as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“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.

“bioaerosols threshold limits” means the maximum acceptable bioaerosol concentrations at the nearest sensitive receptor, or at an equivalent distance downwind of the biowaste treatment operations, which are attributable to the biowaste treatment operations. The maximum acceptable concentrations are respectively 1000 and 500 CFU m⁻³ for total bacteria and *Aspergillus fumigatus*.

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

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

“compostable plastics” means plastics that are certified to meet the standards of EN 13432, EN 14995 or equivalent.

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

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

“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.

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

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

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

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

“Waste Framework Directive” or “WFD” means Waste Framework Directive 2008/98/EC of the European Parliament and of the Council on waste.

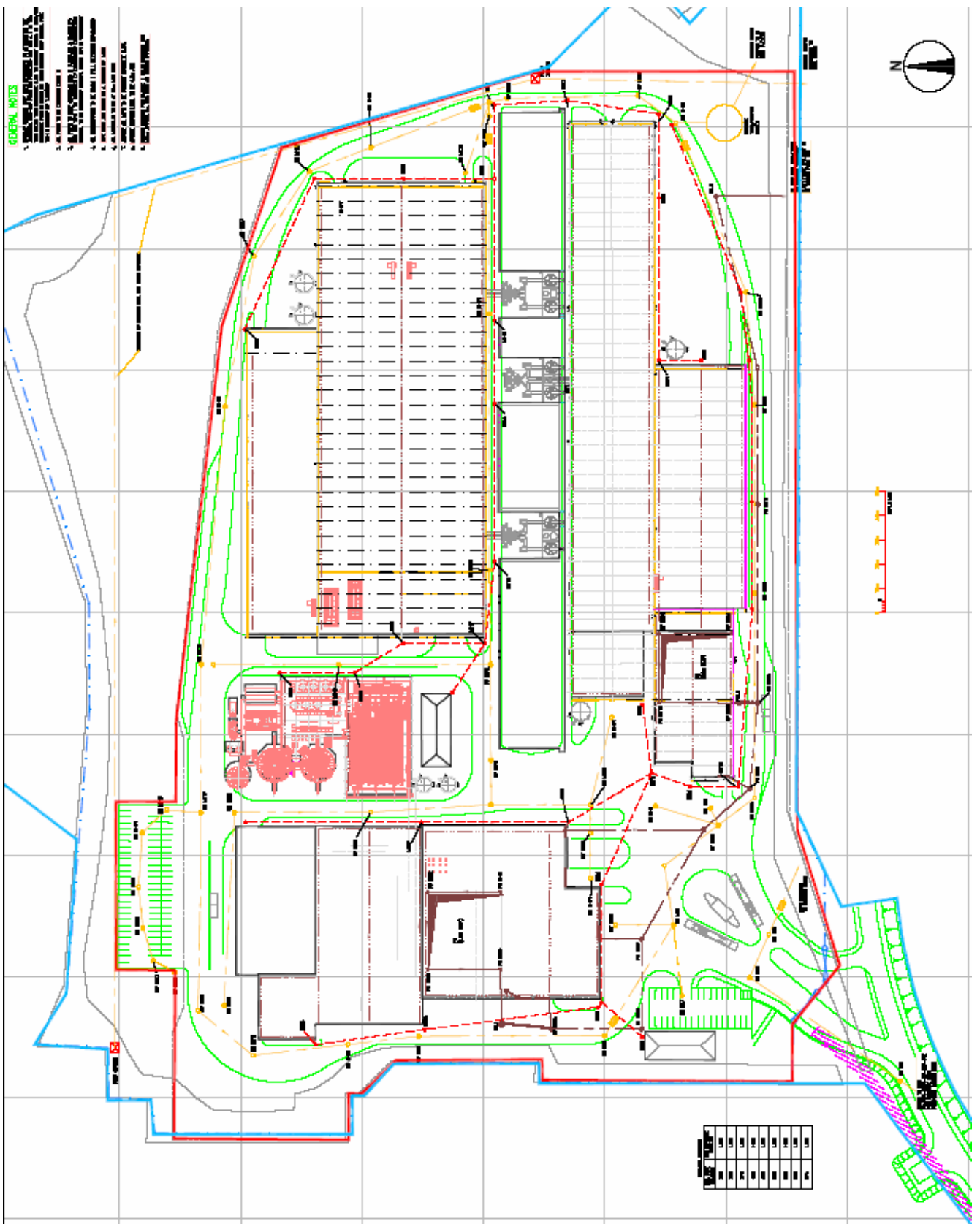
“year” means calendar year ending 31 December.

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



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END OF PERMIT

Permit Number: EP3396SX

Operator: Global Renewables Lancashire
Operations LimitedFacility: Thornton Waste Treatment
Plant

Form Number: Air1/11/04/2017

Reporting of emissions to air for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A6 CHP engine 1	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	1 hour period		BS EN 14792		
	Sulphur dioxide	350 mg/m ³	1 hour period		BS EN 14791		
	Carbon monoxide	1400 mg/m ³	1 hour period		BS EN 15058		
	Total VOCs	1000 mg/m ³	1 hour period		BS EN 12619:2013		
A7 CHP engine 2	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	1 hour period		BS EN 14792		
	Sulphur dioxide	350 mg/m ³	1 hour period		BS EN 14791		
	Carbon monoxide	1400 mg/m ³	1 hour period		BS EN 15058		

	Total VOCs	1000 mg/m ³	1 hour period		BS EN 12619:2013		
A8 Emergency Flare	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	150 mg/m ³	1 hour period		BS EN 14792		
	Carbon monoxide	50 mg/m ₃	1 hour period		BS EN 15058		
	Total VOCs	10 mg/m ³	1 hour period		BS EN 12619:2013		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: EP3396SX

Operator: Global Renewables Lancashire
Operations LimitedFacility: Thornton Waste Treatment
Plant

Form Number: Water1/11/04/2017

Reporting of emissions to water (other than to sewer) and land for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
W1	Oil or grease	No visible oil or grease	--		Visual assessment		

[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: EP3396SX

Operator: Global Renewables Lancashire
Operations LimitedFacility: Thornton Waste Treatment
Plant

Form Number: Bioaerosol1/11/04/2017

Reporting of emissions to air for the period from DD/MM/YYYY to DD/MM/YYYY

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
A1 OGM Biofilter 1 – Stack 1	Total bacteria	5,000 cfu/m ³	8 hour average		In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities		
	Total fungi	5,000 cfu/m ³	1 hour average				
A2 OGM Biofilter 1 – Stack 2	Total bacteria	5,000 cfu/m ³	8 hour average		In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities		
	Total fungi	5,000 cfu/m ³	1 hour average				

UNCLASSIFIED

A3 GW Biofilter 1 – Stack 3	Total bacteria	5,000 cfu/m ³	8 hour average		In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities		
	Total fungi	5,000 cfu/m ³	1 hour average				
A4 GW Biofilter 2 – Stack 4	Total bacteria	5,000 cfu/m ³	8 hour average		In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities		
	Total fungi	5,000 cfu/m ³	1 hour average				
A5 OGM Biofilter 2 – Stack 5	Total bacteria	5,000 cfu/m ³	8 hour average		In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at regulated facilities		
	Total fungi	5,000 cfu/m ³	1 hour average				
Ambient monitoring Upwind of the operational area, as	Total bacteria	1000 cfu/m ³	1 hour average		In accordance with Technical Guidance Note M9 – Environmental monitoring of bioaerosols at		
	Aspergillus Fumigatus	500 cfu/m ³	1 hour average				

described in the Technical Guidance Note M9 Downwind of the operational area, as described in the Technical Guidance Note M9					regulated facilities		
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[1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.

[2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.

[3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.

[4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.

Signed Date.....

(Authorised to sign as representative of Operator)

Permit Number: EP3396SX

**Operator: Global Renewables Lancashire
Operations Limited**

**Facility: Thornton Waste Treatment
Plant**

Form Number: WaterUsage1/11/04/2017

Reporting of Water Usage for the year

Water Source	Usage (m3/year)	Specific Usage (m3/unit output)
Mains water		
Site borehole		
River abstraction		
TOTAL WATER USAGE		

Operator's comments:

Signed
(authorised to sign as representative of Operator)

Date.....

Permit Number: EP3396SX

Operator:

**Global Renewables Lancashire
Operations Limited**

**Facility: Thornton Waste Treatment
Plant**

Form Number: Energy1/11/04/2017

Reporting of Energy Usage for the year

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh		
Natural Gas	MWh		
Gas Oil	tonnes		
Recovered Fuel Oil	tonnes		
Biogas	tonnes		
TOTAL	-		

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)

Permit Number: EP3396SX

**Operator: Global Renewables Lancashire
Operations Limited**

**Facility: Thornton Waste Treatment
Plant**

Form Number: Performance1/11/04/2017

Reporting of other performance indicators for the period DD/MM/YYYY to DD/MM/YYYY

Parameter	Units
Total raw material used	tonnes
CHP engine usage	hours
CHP engine efficiency	%
Emergency flare operation	hours
Electricity exported	MWh

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)