



Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

Dong Energy REnescience Northwich O&M Limited

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

Permit number
EPR/VP3338RD

REnescence Northwich

Permit number EPR/VP3338RD

Introductory note

This introductory note does not form a part of the permit

The main features of the permit 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 Ramsars – 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 solids that are removed for recovery and bio liquid. The bio liquid will then 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 the permit sets out the permitting history, including any changes to the permit reference number.

Status log of the permit		
Description	Date	Comments
Application EPR/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 16/03/16 18/03/16	Additional information detailing air quality and noise 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

Status log of the permit		
Description	Date	Comments
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 (Billing ref: VP3338RD and EAWML 403132)	30/09/16	Permit issued to Dong Energy REnescience Northwich O&M Limited.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number

EPR/VP3338RD

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2010

Dong Energy REnescience Northwich O&M Limited (“the operator”),

whose registered office is

C/O Watson Farley and Williams LLP

15 Appold Street

London

EC2A 2HB

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
Claire Roberts	30/09/2016

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, A1 to A13, 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, A1 to A13, 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, A1 to A13, waste authorised by this permit shall be clearly distinguished from any other waste on the site.

2.2 The site

- 2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

- 2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.
- 2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation (“plan”) specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan, and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.
- 2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.
- 2.3.4 Waste shall only be accepted if:
- (a) it is of a type and quantity listed in schedule 2 table(s) 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 and 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, A1 to A13, 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, A1 to A13, 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, A14, 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:

- (c) the death of any of the named operators (where the operator consists of more than one named individual);
- (d) any change in the operator's name(s) or address(es); and
- (e) 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, A1 to A13, 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, A14, 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
A1	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	<p>From receipt of waste from the bioreactor through to despatch for other on-site operations and recovery of by-products (digestate).</p> <p>Biological treatment of waste by anaerobic digestion for the purpose of recovery</p> <p>Treatment of waste in four tanks followed by burning of biogas produced from the process vessels fitted with appropriate odour abatement.</p> <p>Treatment of waste in enclosed buildings fitted with appropriate odour abatement.</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2.</p>
A2	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	<p>From the receipt of waste into the evaporator unit to storage and disposal of the concentrate.</p> <p>Treatment of wastewater from the onsite processes only.</p>
Directly Associated Activity			
A3	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)	<p>Undertaken in relation to Activity A1 or A2.</p> <p>From the receipt of permitted waste to pre-treatment and despatch for anaerobic digestion on site.</p> <p>Storage of residual wastes from pre-treatment to despatch off-site for recovery and/or disposal.</p> <p>Storage of residual wastes from post treatment in the bioreactor to despatch off-site for recovery.</p> <p>Storage of waste in the liquid balancing tank (LBT) pending recovery.</p> <p>Storage of waste in an enclosed building fitted with appropriate odour abatement and on an impermeable surface with a sealed drainage system.</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
			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.
A4	<p>Physico-chemical and Biological treatment for the purpose of recycling – including:</p> <ul style="list-style-type: none"> • 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 • Biogas cleaning • Washing of grit 	<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 compounds</p>	<p>Undertaken in relation to Activity A1 or A2.</p> <p>From the receipt of waste to despatch for anaerobic digestion biological treatment or despatch off site for recovery.</p> <p>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.</p> <p>Pre-treatment of waste with in the hydrothermal tank and with enzymes in the bioreactor tanks for the purpose of recovery.</p> <p>Pre-treatment of waste includes sorting, screening, mixing and maceration.</p> <p>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).</p> <p>Treatment of biogas including the siloxane removal, desulphurisation and condensate removal.</p> <p>Heat treatment (pasteurisation) of waste in three tanks for the purpose of recovery.</p> <p>No treatment of hazardous waste shall be undertaken at the facility.</p> <p>Treatment operations shall be limited to:</p> <p>Heat treatment of waste for the purpose of recovery.</p> <p>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.</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
			<p>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.</p> <p>Washing to remove grit from residual waste.</p> <p>Washing only of recovered grit for recovery.</p> <p>No treatment of WEEE shall be undertaken at the facility.</p> <p>Treatment of potentially odorous air extracted from waste reception building, bunker, sorting hall, bioreactor and digestate treatment building.</p> <p>Including operation of enclosed carbon system and vent, and associated air extraction systems, vessels and pipework.</p> <p>Waste types suitable for acceptance are limited to those specified in Table S2.2.</p>
A5	Heat and electrical power supply	R1: Use principally as a fuel to generate energy	<p>Undertaken in relation to Activity A1 or A2.</p> <p>From the receipt of biogas produced at the on-site anaerobic digestion process to combustion with the release of combustion gases.</p> <p>Combustion of biogas in four combined heat and power (CHP) engines with an aggregated thermal input of 14 MW_{th}.</p> <p>Heat exported from CHPs to the evaporator in activity A2.</p>
A6	Emergency flare operation	D10: Incineration on land	<p>Undertaken in relation to Activity A1 or A2.</p> <p>From the receipt of biogas produced at the on-site anaerobic digestion process to incineration with the release of combustion gases.</p> <p>Use of the auxiliary flare required only during periods of breakdown or maintenance of the CHP engines.</p>
A7	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.

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
			Storage and combustion of CNG in one or more CHP engine each a thermal input of 3.5 MW _{th} , to start up the process.
A8	Gas storage	Storage of biogas produced from on-site anaerobic digestion of permitted waste in roof space of digesters.	Undertaken in relation to Activity A1 or A2. From the receipt of biogas produced at the on-site anaerobic digestion process to despatch for use within the facility.
A9	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.
A10	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 A1. 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 covered.
A11	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 A1 or A2. 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.

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
A12	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.
A13	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
A14	<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 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

Table S1.2 Operating techniques		
Description	Parts	Date Received
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

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC 1	<p>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.</p> <p>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.</p>	01/12/16
IC 2	<p>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).</p> <p>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.</p>	01/03/17
IC 3	<p>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:</p> <ul style="list-style-type: none"> • 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. 	01/12/16

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
	The operator shall undertake the work detailed in the proposal as approved, and from the date stipulated by the Environment Agency.	
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.	01/02/17
IC 5	<p>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:</p> <ul style="list-style-type: none"> • 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 or 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 or 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. 	01/10/17
IC 6	<p>The Operator shall submit a revised site condition report to the Environment Agency for approval and include but not be limited to the following:</p> <ul style="list-style-type: none"> • Baseline report required by IC 5 above; • Baseline reference data for any 'other polluting substances'; and <p>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'.</p> <p>Further information in respect to setting baseline reference data for any other polluting substances is detailed within the Environment Agency H5 guidance.</p> <p>The operator shall undertake the work detailed in the report as approved, and from the date stipulated by the Environment Agency.</p>	01/10/17
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) or such other subsequent guidance as may be agreed in writing with the Environment Agency.	05/01/17

Reference	Requirement	Date
	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.	
IC 8	<p>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.</p> <p>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) or 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 or such other subsequent guidance as may be agreed in writing with the Environment Agency.</p> <p>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.</p>	01/03/17 or sooner. By the date stipulated by the Environment Agency if pollution of odour is perceived by an authorised officer of the Environment Agency outside the site

Reference	Pre-operational measures
POM 1	<p>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.</p> <p>The review shall include:</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>No site operations shall commence or waste accepted at the facility unless the Environment Agency has given prior written permission under this condition.</p>

Table S1.4A Pre-operational measures	
Reference	Pre-operational measures
POM 2	<p>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.</p> <p>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.</p> <p>No site operations shall commence or waste accepted at the installation unless the Environment Agency has given prior written permission under this condition.</p>
POM 3	<p>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.</p> <p>No site operations shall commence or waste accepted at the installation unless the Environment Agency has given prior written permission under this condition.</p>
POM 4	<p>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):</p> <ul style="list-style-type: none"> • 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. <p>No site operations shall commence or waste accepted at the installation unless the Environment Agency has given prior written permission under this condition.</p>
POM 5	<p>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 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.</p> <p>The review shall include:</p> <ul style="list-style-type: none"> - 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. <p>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.</p>

Table S1.4A Pre-operational measures	
Reference	Pre-operational measures
	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, 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: <ul style="list-style-type: none"> - 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.

Table S1.4B Pre-operational measures for future development

Reference	Operation	Pre-operational measures
		<p>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.</p> <p>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.</p>

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
Activated carbon Copper Oxide Impregnated Carbon	>90% w/w activated carbon >5% w/w copper oxide
Acid Impregnated Carbon	>90% w/w activated carbon >5% w/w citric acid
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 A14) under Table S2.3.
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
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

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 A14) 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 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
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

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 A14) under Table S2.3.
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
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
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

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 A14) under Table S2.3.
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
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
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: <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
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

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 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
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

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
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	Odour	Olfactory Monitoring	--	Daily	--
		No parameter set	No limit set	--	--	--
A7 on site plan in schedule 7	Digestate Treatment Building Carbon Filter vent	Odour	Olfactory Monitoring	--	Daily	--
		No parameter set	No limit set	--	--	--
A8 on site plan in schedule 7	Brine Tank via carbon filter	Odour	Olfactory Monitoring	--	Daily	--
		No parameter set	No limit set	--	--	--
Pressure release vents	Digesters/Digestate storage tanks Brine Tank	No parameter set	No limit set	--	Record of operating hours	--
Vents from tanks	Compressed Natural Gas mobile tank	No parameter set	No limit set	--	Record of operating hours	--

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
<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 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.</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 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					

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

Emission point reference or source or description of point of measurement	Parameter	Monitoring frequency	Monitoring standard or method	Other specifications
Bioreactors	Feed rate Enzyme dosing pH Temperature (feed water and reactor)	Continuous	None specified	--
Bio liquid from bioreactor	Flow into inlet tank	Daily	None specified	--
	Temperature			
	pH			
	Alkalinity	Daily		
	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			

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
Biogas from Digesters	Flow	Continuous	In accordance with EU weights and measures Regulations	--
	Gas pressure		--	--
	Methane	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 EA.
	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 EA
Condensate from evaporator	Chlorine reduction	Weekly	--	--
	Sodium reduction			
	Ammonia reduction			
CHP engines	Electricity produced	Continuous	--	--
	Electricity exported			
	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 EA
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	--

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 filtration system filter	Key process parameters to include, temperature, 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.
All parameters identified in Odour Management Plan to check odour abatement, Section 5.8, dated 19/08/16	All parameters identified in Odour Management Plan to check odour abatement, Section 5.8, dated 19/08/16	All parameters identified in Odour Management Plan to check odour abatement, Section 5.8, dated 19/08/16	--	--
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 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	--	--

Schedule 4 – Reporting

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

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

Parameter	Units
Electricity generated	MWh
Whole digestate	tonnes
Liquid digestate	tonnes or m ³
Solid digestate	Tonnes

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	--

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	

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

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

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

Part B – to be submitted as soon as practicable

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

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

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

“ADQP” means Anaerobic Digestion Quality Protocol

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

“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 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.

Permit Number: VP3338RD

Operator:

**Dong Energy
REnescience Northwich
O&M Limited
Air1 / 30/09/16**

**Facility: REnescience
Northwich**

Form Number:

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	Oxides of nitrogen (NO and NO2 expressed as NO2)	500 mg/m ³	1 hour average		BS EN 14792		
A1	Sulphur dioxide	350 mg/m ³	1 hour period		BS EN 14791		
A1	Carbon monoxide	1400 mg/m ³	1 hour period		BS EN 15058		
A1	Total VOCs	1000 mg/m ³	1 hour period		BS EN 12619:2013		
A2	Oxides of nitrogen (NO and NO2 expressed as NO2)	500 mg/m ³	1 hour average		BS EN 14792		
A2	Sulphur dioxide	350 mg/m ³	1 hour period		BS EN 14791		
A2	Carbon monoxide	1400 mg/m ³	1 hour period		BS EN 15058		
A2	Total VOCs	1000 mg/m ³	1 hour period		BS EN 12619:2013		
A3	Oxides of nitrogen (NO and NO2)	500 mg/m ³	1 hour period		BS EN 14792		

Emission Point	Substance / Parameter	Emission Limit Value	Reference Period	Result [1]	Test Method [2]	Sample Date and Times [3]	Uncertainty [4]
	expressed as NO ₂)						
A3	Sulphur dioxide	350 mg/m ³	1 hour period		BS EN 14791		
A3	Carbon monoxide	1400 mg/m ³	1 hour period		BS EN 15058		
A3	Total VOCs	1000 mg/m ³	1 hour period		BS EN 12619:2013		
A4	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	500 mg/m ³	1 hour period		BS EN 14792		
A4	Sulphur dioxide	350 mg/m ³	1 hour period		BS EN 14791		
A4	Carbon monoxide	1400 mg/m ³	1 hour period		BS EN 15058		
A4	Total VOCs	1000 mg/m ³	1 hour period		BS EN 12619:2013		
A5	Oxides of nitrogen (NO and NO ₂ expressed as NO ₂)	150 mg/m ³	1 hour period		BS EN 14792		
A5	Carbon monoxide	50 mg/m ³	1 hour period		BS EN 15058		
A6	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: VP3338RD **Operator:** Dong Energy REnescience Northwich O&M Limited

Facility: REnescience Northwich **Form Number:** Water1 / 30/09/16

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	Total suspended solids	50 mg/l	Periodic prior to discharge		As agreed with the Environment Agency		
W1	pH	6-9	Periodic prior to discharge				
W1	Ammoniacal Nitrogen	--	Periodic prior to discharge				
W1	COD	--	Periodic prior to discharge				
W1	Electrical Conductivity	--	Periodic prior to discharge				

[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: VP3338RD
Facility: REnescience Northwich

Operator: Dong Energy REnescience Northwich O&M Limited
Form Number: WaterUsage1 / 30/09/16

Reporting of Water Usage for the year YYYY

Water Source	Usage (m3/year)	Specific Usage (m3/unit output)
Mains water		
Process waters recycled		
TOTAL WATER USAGE		

Operator's comments:

Signed

Date.....

(authorised to sign as representative of Operator)

Permit Number: VP3338RD

Facility: REnescience Northwich

Operator: Dong Energy REnescience Northwich O&M Limited

Form Number: Energy1 / 30/09/16

Reporting of Energy Usage for the year YYYY

Energy Source	Energy Usage		Specific Usage (MWh/unit output)
	Quantity	Primary Energy (MWh)	
Electricity *	MWh		
Compressed Natural Gas	MWh		
Gas 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: VP3338RD **Operator:** Dong Energy REnescience
Northwich O&M Limited

Facility: REnescience **Form Number:** Performance1 / 30/09/16
Northwich

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	%
Biogas usage	tonnes or m ³
Auxiliary boiler usage	hours
Emergency flare operation	hours
Electricity exported	MWh

Operator's comments:

Signed

Date.....

(Authorised to sign as representative of Operator)