

Permit with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

ReFood UK Limited

ReFood UK
Desoto Road
West Bank Dock Estate
Widnes
Cheshire
WA8 0PB

Permit number
EPR/AP3938EJ

ReFood UK

Permit number EPR/AP3938EJ

Introductory note

This introductory note does not form a part of the permit

The main features of the permit are as follows:

This permit is for an anaerobic digestion plant, designed to process 150,000 tonnes per year of biodegradable and food waste including animal by-products (ABPR category 3), to create approximately 1,200 m³ per hour of biomethane which will be injected into the gas supply network.

Suitable solid wastes are received and depacked (where necessary) using process water in the reception hall, and ground to less than 12 mm before being pumped to a holding tank. The site will also accept suitable liquid wastes via tanker. The waste reception hall is enclosed and has a positive pressure ionisation system to control odours from depacking.

Waste is pumped to a pasteurisation step which uses heat to sterilise the waste, and from there to a mixing tank which provides the feedstock for three digester tanks. The digesters are designed to operate just above mesophilic conditions (approximately 40°C). The majority of organic material is converted to biogas with a methane content of approx 63%. The remaining digestate is removed as a liquid and is intended to be recovered via landspreading to the PAS 110 standard. This permit does not authorise the spreading of the digestate on land.

The biogas is cleaned using biological scrubbing, carbon filtration and a wash-water scrubbing process to remove hydrogen sulphide, volatile organic compounds and carbon dioxide. A biogas upgrade unit then analyses the gas quality and can adjust the calorific value (CV) using addition of propane to ensure a consistent CV for entry to the gas supply network. The gas is then odourised for safety and pumped into the supply network. Biogas which cannot be supplied to the network (for reasons of quality) is diverted to a backup gas flare where it is burnt. The backup flare will also operate as necessary during site maintenance or in the event of a breakdown.

There are emissions to air from gas boilers providing heat for the site, the wash water scrubber and the gas flare. The site uses surface water within the process, but there is provision for excess to be diverted to an off-site effluent treatment plant. There is also an emission of clean uncontaminated roof water to the River Mersey.

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/AP3938EJ/A0001	Duly made 28/04/2014	Application for an anaerobic digestion facility with injection of biomentane into the gas grid and combustion of biogas
Additional information received	27/06/2014, 01/07/2014	Responses to Schedule 5 Notice dated 10/06/2014
Additional information received	22/07/2014	Response to email dated 15/07/2014 regarding OMP and BAT assessment.
Additional information received	24/07/2014	Response to email dated 23/07/2014 regarding OMP.
Permit EPR/AP3938EJ determined (ref AP3938EJ)	06/08/2014	Permit issued to ReFood UK Limited.

End of introductory note

Permit

The Environmental Permitting (England and Wales) Regulations 2010

Permit number
EPR/AP3938EJ

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

ReFood UK Limited (“the operator”),
whose registered office is

c/o ReFood UK Limited
Ings Road
Bentley
Doncaster
South Yorkshire
DN5 9TL

company registration number 06561170
to operate an installation at

ReFood UK
Desoto Road
West Bank Dock Estate
Widnes
Cheshire
WA8 0PB

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

Name	Date
Anne Nightingale	06/08/2014

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

- (a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and
- (b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.1.4 The operator shall comply with the requirements of an approved competence scheme.

1.2 Energy efficiency

1.2.1 The operator shall:

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

1.3 Efficient use of raw materials

1.3.1 The operator shall:

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

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

- 1.4.1 The operator shall take appropriate measures to ensure that:
- (a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and
 - (b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and
 - (c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.
- 1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 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 (a) 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.

(b) 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 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.

2.3.2 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.3 Waste shall only be accepted if:

(a) it is of a type and quantity listed in schedule 2 table S2.2 and,

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

2.3.4 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.

2.3.5 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 Improvement programme

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

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 Monitoring

- 3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:
- (a) point source emissions specified in tables S3.1, S3.2 and S3.3;
 - (b) process monitoring specified in table S3.4;
- 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.
- 3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.
- 3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1, S3.2 and S3.3 unless otherwise agreed in writing by the Environment Agency.

3.6 Pests

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

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

4 Information

4.1 Records

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

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

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

4.2 Reporting

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

- 4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:
- (a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;
 - (b) the annual production/treatment data set out in schedule 4 table S4.2; and
 - (c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.
- 4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:
- (a) in respect of the parameters and emission points specified in schedule 4 table S4.1;
 - (b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and
 - (c) giving the information from such results and assessments as may be required by the forms specified in those tables.
- 4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.
- 4.2.5 Within one 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. (a) In the event 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) in the event 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) in the event 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:

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

In any other case:

- (a) the death of any of the named operators (where the operator consists of more than one named individual);
- (b) any change in the operator's name(s) or address(es); and
- (c) any steps taken with a view to the operator, or any one of them, going into bankruptcy, entering into a composition or arrangement with creditors, or, in the case of them being in a partnership, dissolving the partnership.

4.3.5 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 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	S6.8 A(1)(c) Disposing of or recycling of animal carcasses or animal waste, other than by rendering or by incineration falling within Section 5.1, at plant with a treatment capacity exceeding 10 tonnes per day of animal carcasses or animal wastes or both in aggregate	Anaerobic digestion of animal and other biodegradable waste followed by treatment of biogas produced from the process. R3: Recycling/reclamation of organic substances which are not used as solvents. R13: Storage of waste pending any of the operations numbered R1 and R3 (excluding temporary storage, pending collection, on the site where it is produced).	From the receipt of permitted waste through to its digestion and recovery of by-products from the installation. Anaerobic digestion of permitted waste including pasteurisation and chemical addition. Odour abatement as described in the odour management plan. Pre-treatment of permitted waste prior to digestion in an enclosed building and on an impermeable surface; including screening, shredding, maceration and mixing. Treatment of digestate in an enclosed building and on an impermeable surface; including screening to remove plastic residues, centrifuge or pressing, addition of thickening agents (polymers) or drying. Gas cleaning by biological or chemical scrubbing. Waste types specified in Table S2.2.
Directly Associated Activity			
A2	Boiler	Combustion of gas in a boiler with an aggregated thermal input of 2 MWth to support the pasteurisation process.	From the receipt of fuel to despatch to boiler for combustion with release of combustion gases.
A3	Heat treatment	Pasteurisation of waste.	From the receipt of permitted waste through to its recovery.
A4	Emergency flare operation	Use of an auxiliary flare required only during periods of breakdown or maintenance or for gas returned from the Biogas Upgrade Unit due to biogas quality. D10: Incineration on land.	From the receipt of biogas produced on-site to incineration with the release of combustion gases.
A5	Raw material storage	Storage of raw materials.	From the receipt of raw materials to use within the facility.

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
A6	Gas storage	Storage of biogas produced from anaerobic digestion of permitted waste on site.	From the storage of biogas produced from anaerobic digestion process to despatch to the Biogas Upgrade Unit. Including storage of biogas returned from the Biogas Upgrade Unit.
A7	Digestate storage	Storage of liquid digestate in a storage tank	From the storage of liquid digestate in the post digester tank to despatch for use off-site.
A8	Surface water collection and storage	Collection and storage of uncontaminated site surface rainwater.	From collection of on-site rainwater in the rainwater collection tank to its re-use within the facility or discharge to off-site disposal.
A9	Biogas Upgrade Unit	Upgrading of biogas to biomethane (including removal of moisture and other substances such as carbon dioxide, hydrogen sulphide, volatile organic compounds) for injection into the gas supply network. Analysis of biogas, with adjustment of calorific value using propane or rejection of biogas back to storage.	From the receipt of biogas produced at the on-site anaerobic digestion process to submission to the gas supply network or return to storage or flaring. Including odourisation of biogas prior to submission to the gas supply network.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to questions in section 3 Operating techniques in form B3 and supporting documents mentioned (including appendices).	28/04/2014
Responses to Schedule 5 Notice dated 10/06/2014	Response to questions 1 to 16, excluding: BAT Assessment Odour Management Plan	27/06/2014, 01/07/2014
Response to email dated 15/07/2014	All parts	22/07/2014
Response to email dated 23/07/2014	All parts (Odour Management Plan annexes)	24/07/2014

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC1	The operator shall undertake olfactory monitoring to BS EN 13725 within and external to the reception building to demonstrate the performance of the odour management systems. A written report, summarising the outcome of the monitoring, shall be submitted to the Environment Agency. The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report.	07/11/2014

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC2	<p>The operator shall undertake monitoring of the Gas Process Upgrade Vent (A2) for total VOCs, H₂S and odour to confirm the performance of the upgrade process and emissions.</p> <p>A written report, summarising the outcome of the monitoring, shall be submitted to the Environment Agency. The report shall also include an assessment of the actual emissions against predicted emissions, and an assessment of impact using the Environment Agency's H1 Annex F Air emissions methodology.</p> <p>The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report.</p>	06/02/2015
IC3	<p>The operator shall submit a written report to the Environment Agency for approval. The report must summarise the environmental performance of the proposed odour abatement system for the reception building as installed against the design parameters set out in the Application. The report shall also include:</p> <ul style="list-style-type: none">• a review of the performance of the site's odour abatement system against the conditions of the permit;• details of procedures developed for achieving and demonstrating compliance with permit conditions;• details of a maintenance and inspection regime; and• any areas identified for improvement (including installation of additional odour abatement). <p>The report must contain dates for the implementation of individual measures.</p> <p>The notification requirements of condition 2.4.2 will be deemed to have been complied with on submission of the report.</p> <p>The operator shall implement the findings of the report as approved, and from the date stipulated by the Environment Agency.</p>	10/04/2015

Schedule 2 - Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels

Raw materials and fuel description	Specification
Chemicals	Operational requirement only

Table S2.2 Permitted waste types and quantities for storage prior to separation and subsequent treatment by anaerobic digestion, dewatering and final recovery of by-products

Maximum quantity	Annual throughput shall not exceed 150,000 tonnes
Waste Code	Description
02	Wastes from Agriculture, Horticulture, Aquaculture, Forestry, Hunting and Fishing, Food Preparation and Processing
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 01	sludges from washing and cleaning – food processing waste, food washing waste
02 01 02	animal-tissue waste – including blood, animal flesh, fish processing waste, fish carcasses, poultry waste
02 01 03	plant-tissue waste – including husks, cereal dust, waste animal feeds, off-cuts from vegetable, fruit and other vegetable waste
02 01 06	animal faeces, urine, manure (including spoiled straw)
02 01 07	wastes from forestry
02 01 99	wastes not otherwise specified – residues from commercial mushroom cultivation
02 02	wastes from the preparation and processing of meat, fish and other foods of animal origin
02 02 01	sludges from washing and cleaning – process water, food washing waste
02 02 02	animal-tissue waste – including blood, animal flesh, fish processing waste, fish carcasses, poultry waste
02 02 03	materials unsuitable for consumption or processing
02 02 99	wastes not otherwise specified – sludges from gelatine production, animal gut contents
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 04	wastes from sugar processing
02 04 03	sludges from on-site effluent treatment
02 04 99	wastes not otherwise specified – other biodegradable wastes
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing – including solid and liquid dairy products, milk, food processing wastes, yoghurt, whey
02 05 02	sludges from on-site effluent treatment
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing – including condemned food, food processing wastes, biscuits, chocolate, yeast, bread, bakery wastes

Table S2.2 Permitted waste types and quantities for storage prior to separation and subsequent treatment by anaerobic digestion, dewatering and final recovery of by-products

Maximum quantity	Annual throughput shall not exceed 150,000 tonnes
Waste Code	Description
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 – including brewing waste, food processing waste, fermentation waste
02 07 02	wastes from spirits distillation – including spent grains, fruit and potato pulp, sludge from distilleries
02 07 04	materials unsuitable for consumption or processing – including brewing waste, food processing waste, fermentation waste, beer, alcoholic drinks, fruit juice
02 07 99	wastes not otherwise specified – malt husks, malt sprouts, malt dust, spent and sludge from breweries, yeast, yeast-like residues, sludge from production process
03	Wastes from Wood Processing and the Production of Panels and Furniture, Pulp, Paper and Cardboard
03 03	wastes from pulp, paper and cardboard production and processing
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 08	wastes from sorting of paper and cardboard destined for recycling – not allowed if non-biodegradable coating or preserving substance present
03 03 10	fibre rejects and sludges i.e. paper pulp (de-inked only), paper fibre
04	Wastes from the Leather, Fur and Textile Industries
04 01	wastes from the leather and fur industry
04 01 01	fleshings and lime split wastes
04 01 05	tanning liquor free of chromium
04 01 07	sludges, in particular from on-site effluent treatment free of chromium
04 02	waste from the textile industry
04 02 10	organic matter from natural products (for example grease, wax)
04 02 13	waste plastic - biodegradable, must be independently certified to BS EN 13432
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 – not allowed if any non biodegradable coating or preserving substance present. Excludes laminates such as Tetrapaks
15 01 02	biodegradable plastic packaging – must be independently certified to BS EN 13432
15 01 03	untreated wooden packaging – not allowed if any non biodegradable coating or preserving substance present
15 01 05	composite packaging – must conform to BS EN 13432 and not allowed if any non biodegradable coating or preserving substance present

Table S2.2 Permitted waste types and quantities for storage prior to separation and subsequent treatment by anaerobic digestion, dewatering and final recovery of by-products

Maximum quantity	Annual throughput shall not exceed 150,000 tonnes
Waste Code	Description
19	Wastes from Waste Management Facilities, Off-site Waste Water Treatment Plants and the Preparation of Water Intended for Human Consumption and Water for Industrial Use
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09 - glycerol (not designated as hazardous - i.e. excludes 19 02 08)
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 from source-segregated biodegradable waste
19 05 99	wastes not otherwise specified – composting liquors
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 08	wastes from waste water treatment plants not otherwise specified
19 08 09	grease and oil mixture from oil/water separation containing only edible oils and fats
19 08 12	sludges from biological treatment of industrial waste water other than those mentioned in 19 08 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 01	paper and cardboard – not allowed if any non-biodegradable coating or preserving substance present. Excludes laminates such as Tetrapaks
20 01 08	biodegradable kitchen and canteen waste
20 01 25	edible oil and fat
20 01 38	wood other than that mentioned in 20 01 37 – untreated wood where no non-biodegradable coating or preserving substance present
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 03	other municipal wastes
20 03 01	mixed municipal waste – separately collected biowastes
20 03 02	waste from markets – allowed only if source segregated biodegradable fractions e.g. plant material, fruit and vegetables

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 (incl. unit)	Reference period	Monitoring frequency	Monitoring standard or method
A1 [Release point 1 on site plan in Schedule 7]	Emergency flare stack ^{Note1}	Oxides of Nitrogen (NO & NO ₂ expressed as NO ₂)	150 mg/m ³	Hourly average	Monitoring to be undertaken 12 months after commissioning. Following commissioning monitoring to be undertaken in the event the flare has been operational for more than 10% of a year (876 hours).	BS EN 14792
		Carbon monoxide	50 mg/m ³			BS EN 15058
		Total VOCs	10 mg/m ³			BS EN 12619:2013
A2 [Release point 2 on site plan in Schedule 7]	Gas upgrade process vent	No parameter set	No limit set	--	--	--
A3 [Release point 3 on site plan in Schedule 7]	Gas boiler stack	No parameter set	No limit set	--	--	--
A4 [Release point 4 on site plan in Schedule 7]	Receiving tank carbon filter	No parameter set	No limit set	--	--	--
A5 [Release point 5 on site plan in Schedule 7]	Mixing tank carbon filter	No parameter set	No limit set	--	--	--
A6 - A12 [Release points 6 - 12 on site plan in Schedule 7]	Tank pressure relief vents/valves	No parameter set	No limit set	--	Record of operating hours	--

Note 1 - These limits are based on normal operating conditions and load. Temperature: 0°C (273 K), pressure: 101.3 kPa and oxygen: 3 per cent (dry gas). The measurement uncertainty specified in LFTGN05 v2 2010 shall apply.

Table S3.2 Point Source emissions to water (other than sewer) and land – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. unit)	Reference Period	Monitoring frequency	Monitoring standard or method
W1 [Point 'Extg permitted outfall to Mersey' on site plan 11/037/39W]	No parameter set	Uncontaminated site roof water	--	--	--	--

Table S3.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site – emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
S1 [W1 on site plan in schedule 7 - emission to Third-Party Effluent Treatment Works (SecAnim Ltd.)]	Volume	Site surface waters	40 m ³ /day	--	Daily	A record shall be kept of the volumes of all transfers

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 Digester and Storage tanks	Flow	Continuous	In accordance with EU Weights and Measures Regulations	--
Biogas from Digester and Storage tanks	Methane, Hydrogen sulphide	Continuous	--	Gas monitors calibrated every 6 months to manufacturers requirements
Waste reception building; Digester and Storage tanks	Odour	Daily	Olfactory monitoring	Odour detection at the site boundary
Carbon (or other media) adsorption on storage vessels and biogas upgrade unit	Breakthrough of contaminants	Daily	--	Filters shall be regularly checked and maintained to ensure appropriate abatement is provided
Digester and Storage tanks	Integrity checks	Weekly	Visual assessment	--

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 3.5.1	A1	Every 12 months	1 October
Emissions to sewer Parameters as required by condition 3.5.1	S1	Every 12 months	1 October

Table S4.2 Annual production/treatment

Parameter	Units
Whole digestate	tonnes
Liquid digestate	tonnes
Solid digestate	tonnes
Biomethane transferred to gas supply network	m ³

Table S4.3 Performance parameters

Parameter	Frequency of assessment	Units
Emergency flare operation	Annually	hours
Electricity usage	Annually	MWh
Water usage	Annually	m ³
Raw material usage	Annually	tonnes

Table S4.4 Reporting forms

Media/parameter	Reporting format	Date of form
Air	Form air 1 or other form as agreed in writing by the Environment Agency	06/082014
Sewer	Form sewer 1 or other form as agreed in writing by the Environment Agency	06/082014
Water	Form waterusage 1 or other form as agreed in writing by the Environment Agency	06/082014
Energy usage	Form energy 1 or other form as agreed in writing by the Environment Agency	06/082014
Other performance indicators	Form performance 1 or other form as agreed in writing by the Environment Agency	06/082014
Waste returns	Form WMS1	06/082014

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 activity that gives rise to an incident or accident which significantly affects or may significantly affect the environment	
To be notified Immediately	
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 permit condition	
To be notified immediately	
Emission point reference/source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	Notification period
In the event 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:	
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 anaerobe 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.

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

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

“emissions to land” includes emissions to groundwater.

“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.

“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.

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

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

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

“*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.

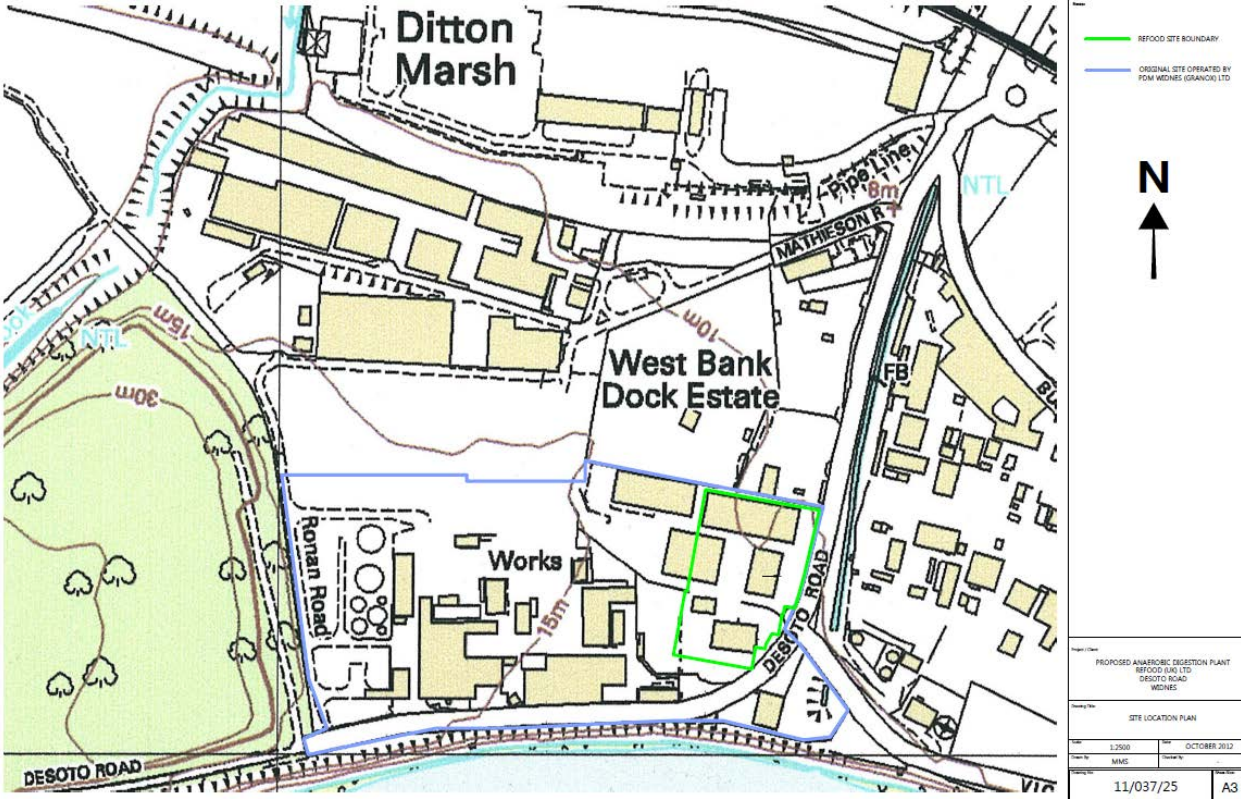
“*year*” means calendar year ending 31 December.

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.

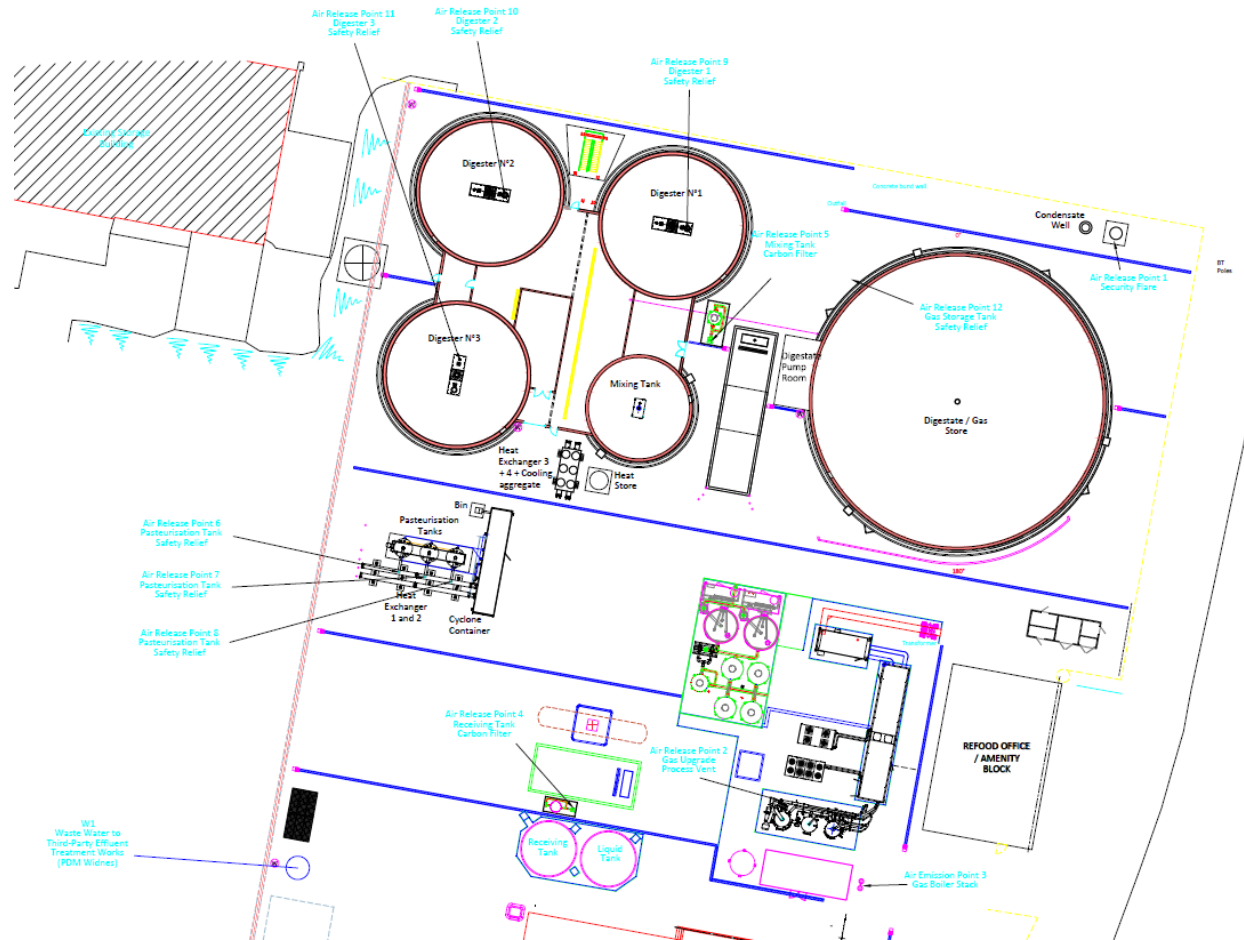
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

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

Schedule 7 - Site plan



Extract of site drawing 11/037/39: Site Layout Plan With Emission Locations.



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END OF PERMIT

Permit Number: EPR/AP3938EJ Operator: ReFood UK Limited
 Facility: ReFood UK Form Number: Air1 / 06/08/2014

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 NO ₂ expressed as NO ₂)	150 mg/m ³					
	Carbon monoxide	50 mg/m ³					
	Total VOCs	10 mg/m ³					

[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
 (Authorised to sign as representative of Operator)

Date.....

Permit Number: EPR/AP3938EJ

Operator: ReFood UK Limited

Facility: ReFood UK

Form Number: WaterUsage1 / 06/08/2014

Reporting of Water Usage for the year YYYY

Water Source	Usage (m ³ /year)	Specific Usage (m ³ /unit output)
TOTAL WATER USAGE		

Operator's comments:

Signed
(authorised to sign as representative of Operator)

Date.....

Permit Number: EPR/AP3938EJ Operator: ReFood UK Limited
Facility: ReFood UK Form Number: Performance1 / 06/08/2014

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

Parameter	Units
Total raw material used	tonnes
Flare operation	hours

Operator's comments:

Signed
(Authorised to sign as representative of Operator)

Date.....

Permit Number: EPR/AP3938EJ Operator: ReFood UK Limited

Facility: ReFood UK Form Number: Energy1 / 06/08/2014

Reporting of Energy Usage for the year _____

Energy Source	Energy Usage Quantity	Primary Energy (MWh)	Specific Usage (MWh/unit output)
Electricity*	MWh		
Natural Gas	MWh		
TOTAL			

* Conversion factor for delivered electricity to primary energy = 2.4

Operator's comments:

Signed

Date.....